

Re-Imagining Management: An Axiological Approach For Knowledge Creation Oriented Organisations

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DOCTORAL THESIS

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Knowledge Creation Oriented Organisations

Presented by Queralt Prat Pubill

Centre ESADE - Escuela Superior de Administración y Dirección

de Empresas

Department Social Sciences

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A tots els qui deixen de ser, pel benefici de tot.

A les meves famílies:

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ABSTRACTS

Abstract en Català

El propòsit d'aquesta tesi és analitzar i proporcionar arguments per ajudar a re-imaginar la gestió i l'ensenyament de la gestió en funció de les necessitats canviants de la gestió en les societats tecnocientífiques. El naixement del 'management' és un fenomen modern que ha canviat amb el temps i que, tenint en compte les demandes actuals de creació de coneixement - com es mostrarà en aquesta tesi - necessitarà enfocar-se en el desenvolupament del coneixement axiològic. Per tant, re-imaginar la gestió també significa re-imaginar l'ensenyament sobre la gestió i centrar la funció rellevant dels gestors de les societats tecnocientífiques en les qüestions axiològiques.

Les consideracions d'aquesta tesi són crítiques per a l'organització i la societat en general perquè la creació de coneixements en societats tecnocientífiques s'ha convertit en un esforç col·lectiu. Per tant, la posada en marxa de projectes axiològics col·lectius per organitzar la creació de coneixement per part dels individus és un requisit essencial per a la supervivència de les organitzacions i, per tant, és central en la funció del gestor.

Però l'enfocament actual de les contribucions axiològiques predominants en els estudis de gestió, com es mostra en aquesta tesi, per al cas de la responsabilitat, l'espiritualitat, les humanitats i les art liberals configuren els problemes axiològics dins de supòsits de projectes axiològics de formes de supervivència preindustrials o industrials.

A més, els enfocaments actuals del desenvolupament creatiu mantenen supòsits de la persona, del 'management' i de les organitzacions que són perjudicials per a la capacitat de dissenyar projectes axiològics per a la creació de coneixement.

En la primera part d'aquest text analitzo la necessitat de desenvolupament creatiu com un requisit ineludible de les societats tecnocientífiques, així com tres de les exigències axiològiques existents en els estudis de gestió. En la segona part d'aquesta tesi, faig una anàlisi dels límits d'aquestes contribucions emprant l'epistemologia axiològica, que em permet descobrir els supòsits antropològics i epistemològics similars d'aquests enfocaments i pronosticar la seva debilitat per proporcionar solucions atractives i útils als nostres problemes axiològics actuals. Finalment, en la tercera part d'aquesta tesi, exploro les implicacions del desenvolupament de l'epistemologia axiològica com a element central en el currículum d'estudis de gestió.

Les limitacions d'aquesta tesi són tres: la primera és que l'epistemologia axiològica és una disciplina científica nascuda recentment i no té un treball empíric robust que avaluï els seus models de la constitució axiològica qualitativa dels col·lectius. En segon lloc, les tres contribucions axiològiques escollides no són un

mapa complet de totes les contribucions axiològiques actuals en estudis de gestió i, en tercer lloc, la impossibilitat de centrar-me únicament en una disciplina per entendre la lògica que regula els problemes axiològics en els estudis de gestió.

Abstract en Castellano

El propósito de esta tesis es analizar y proporcionar argumentos para ayudar a re-imaginar la gestión y la educación de gestión en función de las necesidades cambiantes de la gestión en las sociedades tecnocientíficas. El nacimiento 'management' es un fenómeno moderno que ha cambiado con el tiempo, y atender las demandas actuales de creación de conocimiento - como muestro en esta tesis - requeriría enfocarse en desarrollar el conocimiento axiológico. Por lo tanto, re-imaginar la gestión también significa re-imaginar la educación sobre gestión y centrarse en cuestiones axiológicas como la función central de los managers de las sociedades tecnocientíficas.

Las consideraciones de esta tesis son críticas para las organizaciones y la sociedad en general porque la creación de conocimiento en sociedades tecnocientíficas se ha convertido en un esfuerzo colectivo. Por lo tanto, la creación de proyectos axiológicos colectivos, para organizar el poder de los individuos, para la creación de conocimiento, se ha convertido en un requisito esencial para la supervivencia de las organizaciones y, por lo tanto, es fundamental para la función del gestor.

Sin embargo, el enfoque actual de las contribuciones axiológicas predominantes en los estudios de gestión, como lo mostraré en esta tesis, para el caso de responsabilidad, espiritualidad, humanidades y artes liberales, configuran los problemas axiológicos dentro de supuestos de proyectos axiológicos pasados de formas de supervivencia preindustriales o industriales.

Además, los enfoques actuales del desarrollo creativo mantienen supuestos de la persona, el 'management' y las organizaciones que son perjudiciales para la capacidad de diseñar proyectos axiológicos colectivos para la creación de conocimiento.

Analizo en la primera parte de este texto la necesidad del desarrollo creativo como un requisito ineludible de las sociedades tecnocientíficas, así como las tres demandas axiológicas existentes en los estudios de gestión. En la segunda parte de esta tesis, procedo a analizar sus limitaciones empleando la epistemología axiológica que me permite descubrir los supuestos antropológicos y epistemológicos similares de estos enfoques y pronosticar sus limitaciones para proporcionar soluciones atractivas y útiles a nuestros problemas axiológicos actuales. Finalmente, en la tercera parte de esta tesis, exploro las implicaciones del desarrollo de la epistemología axiológica como elemento central en el currículo de estudios de gestión.

Las limitaciones de esta tesis son tres: la primera, la epistemología axiológica es una disciplina científica nacida recientemente y carece de un trabajo empírico sólido

que evalúe sus modelos de la constitución axiológica cualitativa de los colectivos. En segundo lugar, las tres contribuciones axiológicas elegidas no son un mapa completo de todas las contribuciones axiológicas actuales en los estudios de gestión, y en tercer lugar, la imposibilidad de centrarme únicamente en el estudio de una disciplina para entender la lógica que regulas los problemas axiológicos en los estudios de gestión.

Abstract in English

The purpose of this thesis is to analyse and provide arguments to help reimagine management and management education based on the changing needs of management in technoscientific societies. The birth of management is a modern phenomenon that has changed through time, and attending to current demands of knowledge creation, as I show in this thesis, would require to focus on developing axiological knowledge. Thus, re-imagining management also means to re-imagine management education and to focus on axiological issues as the central function of management in technoscientific societies.

The considerations of this thesis are critical to organisations and society at large because the creation of knowledge in technoscientific societies has become a collective effort. Thus, the creation of collective axiological projects, to harness the power of individuals, so knowledge creation takes place, has become an essential requirement for the survival of organisations and therefore central to the manager function.

However, the current focus of prevalent axiological contributions in management studies, as I will show for the case of responsibility, spirituality, humanities and liberal arts frame axiological issues within assumptions of past axiological projects from pre-industrial or industrial ways of survival.

Also, current approaches to creative development maintain assumptions of the individual, management and organisations that are detrimental to the ability to create collective axiological projects for knowledge creation.

I analyse in the first part of this text the need for creative development as an inescapable requirement of technoscientific societies as well as three axiological demands existing in management studies. In the second part of this thesis, I proceed to analyse their limitations employing axiological epistemology which allows me to unearth similar entrenched anthropological and epistemological assumptions of these approaches and forecast their weakness in providing attractive and useful solutions to our current axiological issues. Finally, in the third part of this thesis, I explore the implications of developing axiological epistemology as central in the management studies curriculum.

The limitations of this thesis are threefold, first axiological epistemology is a recently born scientific discipline and lacks robust empirical work testing its models of the qualitative axiological constitution of collectives. Second, the three axiological contributions chosen are not a complete map of all current axiological contributions in management studies, and third the impossibility to centre this research uniquely on

one discipline to understand the logic governing axiological issues in management studies.

PREFACE

PREFACE

I have written this thesis with the conviction that the work developed here is critical for organisations. I place as a central concern the need to be creative and the ability to establish an appropriate axiological approach to respond to this need. The creation of knowledge in the form of science, technology, new products and services is central for any organisation and has also been signalled as playing a pivotal role in the progress towards the 2030 United Nations Development agenda (Unctad, 2018).

Re-imagining management means clarifying axiological issues as the cornerstone of management. This thesis shows why an axiological focus is a crucial factor in management and how this axiological approach is connected to the creation of knowledge in technoscientific societies.

Management studies and the social sciences treat the issue of creative development thoroughly, albeit without a specific focus in considering the axiological consequences of these creative needs. While, scholars in organisational theory give great axiological attention to responsible leadership, spirituality and liberal education/humanities. Thus, I have explicitly decided to understand these axiological considerations connected to creativity.

In this thesis, I present the field of axiological epistemology as the theoretical lens by which I study these scholarly contributions, especially because axiological epistemology explains the reason why creativity is the engine of economic development and speculates, as well, about the axiological consequences of this creative need.

For this reason, I will explain key theoretical contributions of axiological epistemology, and the contributions from management studies and social sciences to respond to the challenge of creativity and leadership development. From each of these

disciplines, I will explain its assumptions, objectives, contributions and deficiencies. Finally, I will develop the crucial elements to take into account in this quest for creativity development.

Itinerary

Before starting my PhD, I worked in the business world for fifteen years, developing diverse functions in management. At that time, I was struck by how difficult it was to work in teams, mainly about the difficulty to create team-oriented relationships and the lack of collective purpose. I was shocked about the refined exploitation running amok in the workplace and how our collective professional relations were uncaring and instrumental.

These dispositions at work had very negative consequences, but It was not considered necessary to remedy them. Nobody cared about doing anything about it. I figured that understanding how to develop team-oriented relationships was a way to ensure organisational success. So, I quit my job and decided to devote one year of my life to understand how spirituality could potentially turn things around. Little I knew the adventure in which I had embarked myself on. My rationale was as follows; I figured that if people would be "spiritual" in their approach to life and others, then organising would be better and team relations would improve. None of my expectations happened to be right. I am now presenting a thesis with a critical approach to spirituality in management.

My one-year research has metamorphosed to a ten years long PhD thesis. I started working on axiological issues with a deep interest in understanding how spirituality could be part of management. Also, I wanted to understand if spirituality was a captivating departure point to comprehend about responsible leadership. After an initial work of more than three years, I realised, to my dismay, that the field of spirituality in management was not adequate for the kind of scientific work I wanted to pursue. I realised that the underlying assumptions of the proposals, at that time, were descending from the Christian religion, and thus the name "spiritual" was being used for a specific biased Western understanding with the underlying Christian assumptions being unquestioned.

Thus, this thesis has evolved in many ways, but if there is something that summarises my research in the last seven years is the worry to understand how to develop creativity in organisations. My work has also allowed me to understand the breadth and depth of the conversations regarding axiological issues. I have verified an increasing demand for a new type of manager and a new kind of relations coming

from diverse fields in management, among others, organisational behaviour, strategy, leadership, and change management.

However, axiological proposals emanating from business ethics, psychology and sociology, somehow have not been able to respond to these increasing practical demands about responsible leadership and creativity development. My work has been to understand which the matters in question, behind their limitations, were and try to accurately locate the nuclear issues which might be impeding our advancement in the construction of axiological responses given our current material conditions while also taking into account the needs of knowledge creation. The measure by which I define and explain this failure is axiological epistemology.

Significance of all of it

Above all, this thesis has produced a profound transformation in my way of seeing and understanding the world. It has been very challenging, with great effort, I have developed a deep understanding of the human and social condition and thus a broader possibility to be free. The axiological world for humans and other animals is that direct, spontaneous interpretation and valuation of the world connected to our survival.

It has been a blessing to be in constant discussion with colleagues, and to read and reflect on the arguments from amazing researchers. I have learnt and been impressed by their intelligence, hard work and motivation. I am grateful.

There have been many aha! moments, which I keep in a red notebook. One of those stellar moments was when I completely understood to the last consequences some of Nietzsche's paragraphs, I had read long ago. All of a sudden, his message became clear and convincing. 'We cannot establish any fact in itself' or 'The subject is not something given; it is something added and invented and projected behind what there is' (Nietzsche, 1967). These interpretations, from Nietzsche, and other authors grouped under the convenient label of structuralists and poststructuralist clarified all of a sudden. These fundamental ideas have transformed our concepts of truth forever. What is 'a fact' is defined by the theory or orientation that is active. Science has moved from discovering the 'truth' to creating, 'sculpting' models of reality; what we find out is a variety of responses depending on the questions and methods we apply (Feyerabend, 1975).

The consequence of this idea is that our ability to create knowledge will not take us to the truth, but to the endless creation of knowledge, a creation that opens infinite new questions for research. Hence, the remarkable possibility we have as

beings, to create a world of benefits or hell. Furthermore, in the realm of collective motivations, that which is axiological, of value, is defined by us - as a collective-, knowingly or unknowingly. Therefore, now we know, we can transform our world, without the interference of miracles, revelations or because it is inscribed in 'the true laws of nature'.

These ideas are not new; these notions have been percolating in the social sciences for approximately a century. However, I was not exposed to them in my previous education. Now, I am fortunate I finally got to them, and I developed the ability to discern the fluidity of our linguistics frameworks (Wood, 1985). Thus, I finally understood how entities are created, formed, and defined by our language. Although we tend to think that language labels what is there, in fact, it is through language that difference becomes, and it is modelled as we know it. It is not what is there. Every creation of form excludes 'other' 'that is there'. What is here is framed by our language, which fences, and creates contours of what we value. This linguistic and later scientific interpretation has been further enhanced by our new recent biological understanding of how animals perceive the world, neuroscientists' research on how our nervous system creates the necessary illusion of an ego (Feinberg, 2001; Metzinger, 2000, 2003, 2009), and the interdisciplinary approach of neuroscientist and philosophers (Bennett et al, 2009).

My work on this thesis has not only made me free but also has made me acutely aware of the dangers in which we are embedded. We are in command of ever greater scientific and technological power, while we maintain and promote the exploitative dynamics of work and relation to the world. These logics, if not tamed, would surely take humanity to its demise. I hope my work, on re-imagining management in its axiological aspects, is an active contribution towards re-imagining current management practices and management education, thus somehow be instrumental in changing current exploitative logics.

INTRODUCTION

INTRODUCTION

The focus of this thesis is on axiological issues. Re-imagining management means to focus on axiological issues, due to the current needs of technoscientific societies. Although I study the need for creativity, this need is just the departure point of this inquiry. It is not a thesis about creativity development but on its axiological conditions. My concern is about understanding three current axiological contributions in organisational theory and how these contributions relate to the need for creative development.

Research question

My research question examines three of the current axiological proposals: responsible management, spirituality, humanities and liberal arts connected to the need for creative development. To understand and review these proposals, I use axiological epistemology. This theory is adequate because it can explain the need for creative development and also assists in providing axiological consequences. I hope this analysis might be instrumental in complementing, expanding and rethinking our need for axiological knowledge in management, and thus affect in reimagining current management practices and education focusing on axiological aspects.

Perspective and methodology

This thesis is just a canvas of possible approaches and, therefore, it is incomplete in describing, and questioning prevalent axiological ideas in management. I have selected, to the best of my judgment, those discourses in management studies that seemed more salient and widespread, and I have proceeded to work on them with an epistemological axiology focus.

This axiological epistemology focus could be summarised, for the sake of brevity, considering two aspects: first, the anthropological consideration of human beings as constituted by language, and second a non-mythical epistemology: recognising that words only model reality, and thus are not reality, but just a possible model.

A direct consequence of these assumptions is that motivations and systems of values are understood as created. Hence, motivations and systems of values are a necessary biological construction to constitute a viable being adequate to a form of survival.

Thus, this epistemological comprehension has two aspects, first, 'that which is modelled': everything our words seem to describe, but in fact, only model. The second aspect and a consequence of the first one is the existence of 'that' 'where the modelled is created', hence a deep understanding of the de-constructed and unmodelled dimension our language logically creates, which cannot be described with words. There can be no possibility of modelling without a space of no-modelling.

This space of no-modelling is what in axiological epistemology is termed as the absolute dimension (Corbí, 2016). This absolute dimension is not related in any way to our human needs, and this is the reason why it is called absolute. As I explained, speech is the reason why we have a second way to access reality, one which is connected to our needs, interpretations and values which, following axiological epistemology is called relative dimension, and the other one which is unconnected to us which is called absolute dimension. Both of these dimensions are a result of our speaking condition.

The derived consequences from this understanding are: (1) An interest in creating and developing the necessary collective motivations for our organisations and society at large because otherwise the human animal cannot be properly constituted. It is a biological requirement. (2) The possibility to research, generate and develop these axiological contributions in the form of motivations and systems of values from an axiologically pristine space. Thus, clarifying that human beings required axiological constitution, minimal constitutive cultural configurations ('mccc'), is independent of axiological considerations inherited, for example, from ideologies or religion. Therefore, collective motivations and cohesion cannot be thought as fixed or determined, and thus axiological motivations cannot be, by definition, transhistorical, permanent or natural, but are dependent on the forms of survival, just like any other animal. Thus, (3) this thesis undertakes an explicit meticulously scientific approach in researching axiological issues. (4) Finally, this scientific approach to the understanding of axiological contributions favours and

fosters the development of axiological epistemology as fundamental scientific knowledge in management practice and management education.

Axiological epistemology theory has as initial assumptions scientific anthropological and epistemological conceptions. Human axiological configurations are defined by collective axiological projects which create the minimal constitutive cultural configurations adequate for survival in a specific time and place. Because minimum constitutive cultural configurations affect collectives; by definition, my work has political consequences. Thus, my thesis also follows that in human affairs, nothing is as it should be. If we would appreciate our linguistic constructs just as a necessary 'make-believe', only as necessary errors (models), together with a lived understanding of 'that' which is not modelled then we would have the required freedom and intuitions to envision new possibilities for us, our organisations and humanity. This comprehension would potentially help us to design the appropriate collective motivations and cohesion so humanity would survive.

Thus, the approach of this thesis is scientific, far from any ideological or political position. I am conscious that the topics I am working with may arise blisters in readers. I am challenging conceptions that are very dearly held, and in most cases treated as the "truth". Thus, I want to make clear from the outset that this thesis is not normative. I am not trying to provide a new answer to the current issues of values and ethics connected to responsible leadership, and what I deem more appropriate to call, following Corbí's research (1983, 1992, 2007, 2013a, 2015a, 2015b), 'collective motivations' and that recently has been argued by Latour (2013) to be a more compelling term than the use of 'culture', 'society' or 'civilisation'. I would kindly ask the reader to refrain from instantly disregarding what I present.

Thus, my aim is modest; I want to put into question deeply held convictions and leave the readers with the possibility to open up their issues. Therefore, my method is about developing second-degree interpretations using the axiological epistemology theory of first-degree interpretations about how some axiological conceptions are used and interpreted in management. Thus, I follow Schutz's research method (1995).

I have devoted a lengthy part of this thesis to reflect on the consequences of these interpretations for management, management education and also for the survival of the human species. Thus, I have invested time and effort in explaining why the way values and motivations are understood directly affect our survival possibilities. These considerations are applicable for an individual, a group, an organisation, a society, a country or humanity as a whole.

Furthermore, this thesis is a recognition and a proposed continuation, in this case for management practice, of what Lyotard (1984) described as the end of the metanarratives, the end of universal values. If metanarratives can not orient collectivities (Harari, 2014, 2018) then, following axiological epistemology theorisation, this has direct consequences on our collective ability to constitute viable human beings for specific survival conditions. Therefore, my inquiry focuses on three vital axiological elements, first what is needed in management practice attending to our survival requirements, second some axiological proposals in management practice together with a review of these proposals using axiological epistemology and third an example of a possible axiological innovation in management education using axiological epistemology.

Ambition and Scope

The backbone concept of my research is 'creativity'. Creativity is defined as the inception requirement of our current economic pressures, and thus, the element that contributes and ensures survival in technoscientific societies. Thus, creativity development can be termed as the "engine" of survival. Connected to this requirement, I study some of the current axiological proposals in management studies assessing whether creativity development is a consideration.

Axiological epistemology theory explains how collective motivations are linked to forms of survival, and because currently our mode of survival is connected to the need of creating knowledge, then these collective motivations need to be designed to foster this creative objective. Thus, axiology has become all of a sudden, a crucial issue.

Collective motivations are those constitutive minimal cultural configurations that cohere groups to achieve their survival. Collective motivations are required because they finalise the human biological constitution by ensuring symbiosis in a specific mode of survival. Because collective motivations are axiological, they enter through the senses and are able of arousing feelings (Corbí, 2016); therefore, collective motivations are not abstract terms analysed and understood by reason. Individuals feel them as accurate, real, concrete, automatic, evident and valuable. Thus, collective motivations are mainly qualitative as are our needs.

Because creative development is such an ambiguous goal, collective motivations cannot be imposed. On the contrary, individuals need to freely adhere themselves to these collective motivations because creativity needs to be developed (Corbí, 2016). I hypothesise that the creation of these collective motivations

should logically be defining the axiological considerations of what it means to be a responsible leader nowadays.

Knowledge creation is also a key term because it connects constitutive collective motivations to the current demands imposed by the new industrial society. I have also tracked the uses of the words: spirituality, responsibility, humanities and liberal arts in its specific scope to assist in current axiological demands.

I explicit here the definition of creativity I use in this thesis. An initial analysis of the creativity field would show the different understandings of creativity; Treffinger et al. (2002) reviewed more than 100 definitions and concluded there was not a unique consensual construct. Many view this apparent lack of description as a problem and the justification for the lack of an appropriate measurement (Batey, 2012; Plucker et al. 2004). However, it could also be possible that this lack of universal definition has allowed the flourishing of diverse methods and approaches to explore creativity.

In 2004, Plucker et al. conducted an analysis on the definition of creativity, in the Creativity Research Journal (CRJ) and Journal of Creative Behaviour (JCB), and concluded that "Creativity is the interaction among aptitude, process, and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context".

This definition is useful to foster creative development; however, taken literally would seem to exclude, knowledge or services - we do not usually think of knowledge or services as a product-, or play. Also, it would seem to exclude, as they might not be considered 'useful', artistic endeavours and much of scientific research. Careful consideration of the initial definitions would show how the term 'product' can be understood more broadly and the word 'useful' could be equated to 'appropriate', 'effective' or 'valuable' to the domain, thus this creativity definition would effectively include all areas of human expression.

Runco and Jaeger (2012) have also defended that the definition of creativity seems to require both originality and effectiveness/ value, as espoused by Plucker et al. (2004). Although recently Weisberg (2015), has favoured replacing a judgment of 'intentional novelty' instead of the current use of 'value', this approach should be further discussed, because it loses the social aspect considerations of Plucker's definition, and hence becomes centred in the individual. Thus, we still consider Plucker's definition operational for creativity development.

Creativity could be studied from many different angles, but in this text, it is of interest uniquely in its motivational aspect. If creativity is a need, how can individuals and collectives be motivated to pursue this requirement? Can responsible leadership,

spirituality or humanities help in developing creativity? Alternatively, are these approaches indifferent or in conflict to creativity development? From an axiological epistemological viewpoint, the development of collective motivations can affect the development of individual and collective creativity, and thus, this theory provides operative contributions to achieve this aim, as I will show. Also, collective motivations affect the development of what we subjectively perceive as individual motivations.

In fact, creativity performance can be conceptualised, following one of the many component models of creativity, depending on four components, the first one pertains to domain knowledge, the second one to the creative skills, the third one to motivation (Amabile, 1983), and the fourth one depends on the social environment (Amabile, 2012).

For someone to be recognised as creative in a specific domain, that person needs to know about the field. An example will suffice, I could not be creative in physics, because I do not know enough of physics to create new and useful products (here product is understood broadly, for example, it could be related to new approaches, axioms and problem-solving strategies). However, domain knowledge is not enough to be creative; in fact, to be an expert in a field does not mean or imply that people are creative.

The ability to be creative is also related to creativity skills, for example, among others, the ability to convince others, and the capacity for divergent and convergent thinking.

Finally, the third key aspect is related to motivation; people need to be motivated to sustain creative effort. Thus, it is not enough to be knowledgeable (domain knowledge) and have creative skills; individuals need to be motivated to investigate and try new approaches. However, in an organisational setting, this is not enough, unless organisations are oriented towards fostering creativity development, any creative personal motivation will be inhibited due to the dominating organisation pressure, in the form of practices, systems and procedures that systematically might hamper any particular creative spur. Thus, collective organising is critical, and hence, the development of appropriate collective motivations to sustain creativity development.

Outline and reading guide

The proposed journey for this thesis is first to show how management has changed and secondly explain the need for creativity development in technoscientific societies. I also inquire how this creative requirement has meant that collective

organising requires the development of collective axiological projects creating minimum cultural constituting configurations connected to specific survival forms, and wonder what it means to be responsible in technoscientific societies. Given this context, I show some of the management studies current proposals. In the second part of this text, I focus on the axiological epistemology. I present the subject and proceed to explain why this theory might detect and provide new research venues for the three limited axiological proposals I have already introduced. Axiological epistemology justifies why the focus on creativity is a critical consideration for the creation of collective motivations in technoscientific societies. I finally propose, in the third part, an approach of how this theoretical advance could be used to innovate in management education.

The context of management

I am aware I could have extended this thesis and focus on crucial issues with greater detail. However, I think, as it stands, it is enough to provide an anchoring place for other researchers interested in investigating axiological considerations.

I devote most of my writing to explain why the axiological issues we are currently discussing and testing in management and management education need to be complemented and expanded by the theoretical work of axiological epistemology. I aim to introduce the immaculate scientific condition of axiological epistemology in management theory, so it is possible to weed out current axiological considerations stemming from, for example, religion or ideologies, not connected to our current form of creative survival.

Thus, the different underlying assumptions to current management science has not yet been researched in this breadth and depth, attending to our current material conditions of permanent change.

I take the opportunity to apologise to the reader for any errors and even my possible inability to convey some of my arguments appropriately.

It could be argued that some of the work presented here would benefit from further research, as already suggested at the beginning of this preface, nevertheless I think that what is provided advances enough argumentation to allow me, and others to move forward. Social research, in this aspect, is a never-ending field where certainties can never be reached.

Finally, I am grateful for the interest and time the reader devotes to my work, and I plead for a benevolent and understanding mind on the difficulties this work entailed.

PART 1

FIRST PART: Creative development as the current economic engine, investigating three axiological demands: responsible management, spirituality, and humanities and liberal arts.

1.1. Introduction

Imagine a newly appointed director of an investment company. The director has 20 senior investment officers, a group of mathematicians, 15 junior associates, and an administration group of 5 people working for him. Business is underperforming, collective motivation, communication and group cohesion are non-existent, and personal motivation is unsteady. Could values and ethics be some of the critical elements the director needs to develop to create some answers to the business issues they are facing?

Most business people would argue that values, ethics, spirituality and management are odd bedfellows, even responsible management is questioned. Some will even reason that values and ethics should not play a prominent role in business or economics less in ensuring business performance. This assumption is also common among economists, somehow forgetting that social structures, with its values and ethics, make the principle "self-interest" possible (Sen, 1993; Polanyi, 1957). However, it is acknowledged that some types of values are required because in societies without norms and rules, markets cannot function, as shown by the empirical work of Acemoglu and Robinson (2012).

Moreover, currently, business practitioners' debates about values and ethics swing between dogmatism based on shared religious or philosophical understandings and a tolerant relativism not able to ascertain what is right and what is wrong (Humphreys, 2017). So current axiological approaches do not have a clear footing on which to argue for particular values or ethics.

Regarding the issue of motivation that this example mentions, recent research conducted by Gallup (2017) shows that between the years 2014 and 2016 only 10% of the European workforce was motivated and engaged about their job. This low number would seem to suggest that our ability to create knowledge and be productive is severely hampered. Moreover, this data would seem to show that whatever collective motivations systems we have currently in place do not quite motivate.

The issue of motivation that the above example mentions is somehow not considered as being an axiological problem on the topic of values and ethics. However, this thesis wants to start inquiring about a different possibility, could it be that a new way to investigate the motivational problem is to focus on axiological issues regarding what we understand as values and ethics? However, could it also be that those axiological issues could not be treated in the way in which values and ethics are currently handled in management?

To start this enquiry, I follow a specific approach, in the first part of this text, I want to show the pivotal role that the need for creative development plays. This idea is not new, and in fact, we are surrounded by narratives and desires of creation and innovation. I aim to highlight that the requirement for being creative also reaches the axiological world, affecting our systems of values and our ethics.

In this first part, I also want to show how different business needs created the role of manager and how this role started changing its functions with the development of technoscientific societies.

Also, I want to introduce diverse axiological demands that have gained traction in management, specifically those of responsible management, spirituality and the need to integrate humanities and liberal arts. The force of these axiological demands is diverse, but all of them try to introduce axiological considerations to current mainstream management practices.

In this first part, I intend to advance these proposals and then in the second part of this text I plan to introduce the academic subject of axiological epistemology, to analyze the contributions and limitations of these axiological proposals.

1.2. The underpinning: creativity development is a need - consequences for managers and leaders.

This thesis starts with the hypothesis that the engine of our economy is knowledge creation. I enquire about the axiological consequences of this requirement in management studies and practice. First, I start with a historical account about the birth of the manager function, thus a first account that shows how management needs transformed management itself, creating the manager function. Then, I explain how, in less than 100 years since the emergence of managers, a new industrial society was born, which created value through the creation of information and knowledge. I continue with the results of a study of 1,500 chief executive officers from around the world which explain that their essential worry is about creative leadership. This report narrates the second instance in which is shown how management needs are transforming management itself, by metamorphosing the manager function. Then I focus on a study of 759 organisations from 17 countries which focused on understanding which are the crucial factors for innovation. Finally, I make some considerations about some key findings regarding innovation and creativity. The purpose of this first part is to foreground the implications of the continuous development of science and technology and to underscore the importance of creativity in the axiological considerations I develop later.

1.2.1. The industrial society. The birth of management and its legitimacy.

It was in the year 1977 when Alfred Chandler published his historical account of the American Industrialization development from 1840-1920 (Chandler, 1977). The central thesis of the book was to examine how modifications in production and distribution needs propelled the emergence of the modern business enterprise and its

management class. The start of mass consumption in the 1880s affected the structure of the companies, which to pursue economies of scale and scope had to transform the initial one shop-man enterprise to a more complex organisation and thus the managerial staff as a function was born. This change had three critical consequences, first there was labour totally dependent on wages, second companies were being run by managerial staff that were not the owners of the capital and third, managerial decision making was the mechanism for coordination of activities and allocation of the resources of the economy, and thus the control of their results. Chandler speaks of this *visible hand* that in many sectors of the economy replaced the *invisible hand* of the market. Chandler's research (1977) is captivating for two reasons, first because Chandler shows how the rise of the modern business enterprise with its many operating units managed by a hierarchy of management executives was the result of change in the processes of production and distribution of the American economy, and second he dates the birth of management.

This new managerial staff had to legitimise its function (Barley and Kunda, 1992). They were not the owners or entrepreneurs, and diverse management theories/ideologies, alternating between normative and rational justifications were formulated to solve the central problem of managers: how to achieve control of complex organisations (Barley and Kunda, 1992; Guillen, 1994). These justifications fixed and blocked any change that went against their business objectives. An important caveat was that rational theories justifying the need for management were more prevalent in management practice that normative ones and alternating theories/ideologies were not described in absolute terms but were a matter of degree of importance (Barley and Kunda, 1992), there was always some mix.

The first theory was named Industrial Betterment (1870-1900). It had religious and moral underpinnings, aimed at achieving cooperation with workers by improving their social situation, and by aligning their interests and beliefs to that of the company owners. The next theory was that of Scientific Management (1900-1923). It was driven by engineers that applied the use of intelligent systems to solve problems in production, accounting and workers motivation through wage payment plans. The next wave of managerial ideology was the Human Relations movement (1925-1955), were the central rhetoric was that through creating the right environment, the motivation of the workers was assured. It was the first time that effective management was synonymous with leadership, only by influencing the social dynamics and gaining the consent of employees could managers ensure a healthy and productive organisation. After the II World War, a new wave of Systems Rationalism (1955-1980) appeared, inspired in the previous Scientific Management, this notion

grouped various movements, that had as the main claim the development of some programmatic techniques or universal principles that would enable managers to plan, forecast, and act more effectively. Finally, the organisational Culture movement argued that organisations should be viewed as socially constructed systems of meaning not as rational systems as the previous movement argued. Increasing workers commitment through designing and manipulating cultures was the aim of this movement.

Guillen (1994) explains how the ideological justification of the different organisational theories moved from religious or paternalistic grounds to scientific ones, thus following a linear evolution from normative to value-neutral, based on science (Guillen, 1994). Whereas Barley and Kunda (1992) defend that none of the theories or approaches is better than any other because the different management ideologies by which managers had exerted and justified control had been an alternation, not an evolution, between normative and rational theories. Thus, Barley and Kunda (1992) hold a more advanced epistemological position.

Each of the ideologies, normative versus rational, offers different assumptions on the concept of organisation and the concept of management. For normative ideologies, the organisation is viewed as a collective that has to be organised around a set of shared beliefs and values. The ultimate source of productivity was believed to be the cohesion and loyalty to the organisation. Thus, the manager should be the leader who motivates, inspires and provides for employee welfare. The employee should be committed to the organisation and managed by shaping their identities, emotions, values and beliefs. For rational ideologies, the organisation is seen as a machine that is managed through systems and methods; it could be divided into different parts, modified and reassembled more efficiently. The manager was the expert engineer who brought rational analysis and empirical knowledge to systems. Employees were seen as powerless in the face of well-structured systems.

Though these theories had different views regarding how to achieve control and dominance to pursue business needs, both types of theories had many basic premises. They had an underlying assumption: the division of labour. One group was the one that designed, created, planned, and managed, and as such had the control of the business project. The other group was just a material executor, that had to be either motivated, shaped and persuaded in a "soft" way or controlled and dominated through a rational, systematic scientific approach. Also, coordination and cohesion were achieved, in both cases, through hierarchical structures.

Thus, the management function was born due to the changing business needs. This new type of organisation had to be managed by individuals, managers, whose primary purpose was to organise and control workers and machines to manufacture products at a massive scale. Many of these managers had an engineering background; they knew everything it was required on a technical level. Also, many of them had created the machinery or developed the production systems and were able to control the work of others through technical knowledge. Thus, this historical account shows how changes in production and distribution needs propelled the emergence of managers, a figure that has been gaining legitimacy in the last one hundred years. As I have shown, managers' rise was a response to business needs; thus, **if business needs were to change, could we envisage the end of this managerial function?** This transition of management needs is an essential question that, so far, has not received much interest.

1.2.2. The knowledge societies, technoscientific societies, post-industrial societies. Axiological consequences.

Although other economists previously, for example, Veblen (1904), Hayek (1945), Solow (1957) and Arrow (1962) had already researched and argued about the importance of knowledge as key contributor to competitive advantage, it was in 1977, and for the first time, when Marc Porat defined and measured the information economy, the post-industrial society, the technoscientific society or the also called new industrial society. Coincidently, it was the same year Chandler published his much acclaimed "The visible hand" which described the birth of the management function. Following Porat's calculations for the United States, the information sector raised from a low 15% of the labour force in 1910 to over 40% in 1970. By income, in 1967, information workers represented 53% of labour income (Porat, 1977). The information society or post-industrial society was defined because the amount of information and knowledge required to create products and services was growing, and it was more important than the transformation of matter and energy.

The term post-industrial does not mean that industries cease to exist, the name aims to highlight that the main occupation of these industries is their ability to harness and manage knowledge and information and create products and services (Porat, 1977; 3). Sociologist Daniel Bell (1976) had also highlighted the increasing importance of knowledge and wondered about the effects of a booming "intellectual technology" which could be potentially used in harmful ways with devastating results for humanity.

These changes in our economy, where knowledge has become central in any productive endeavour, do also have a social impact (Drucker, 2001). Castells (2010)

was the first one to argue that we were already living in a new type of society. He claimed that three types of modifications could be observed, (1) an alteration in production relationships, (2) in power relationships and (3) in experience relationships.

Castells (2010) argued that the production system is oriented towards two axes, one towards innovation, responsible of the increases of productivity, and the second one towards flexibility which is geared to competition, allowing management and organisation to adapt to the changes. Power relationships have also varied, especially the crisis of the nation-state and the crisis of democracy (Castells, 2010). Finally, he claimed that experience relationships have also been reordered, as it is shown by the crisis of patriarch, affecting family, sexuality, and thus personality (Castells, 2010).

The new economy of the knowledge society, or technoscientific society or post-industrial society in all its bare minimum definitions is based on the capacity to survive to produce knowledge and process information. It is a global economy communicated through an electronic hypertext (Castells, 2010) forming a network which allows for maximum flexibility. Though Sennett (1998) warns that this flexibility of organisations has influenced the work environment negatively, bringing a reduction of compromise and fading of informal ties resulting in an increased number of depressions and a diminishing meaning of work in the life of individuals.

At the global level, many nations might not yet be embracing technoscientific development; however, the western developed world is mostly immersed in technoscientific societies, driving scientific and technological innovation.

Also, it might be possible that these new industrial societies, in many nations, are still mixed, with different minimal cultural constituting configurations (Corbí, 2007) coexisting in the same timeframe. Thus, many individuals could have as a central occupation that of creating knowledge and others could, possibly produce goods and services without the creation of knowledge, and thus still being immersed in pre-industrial or industrial survival relationships.

Though it is entirely possible that such mixed societies simultaneously live together for a long time. It is likely the coexistence of an industrial society with individuals living in pre-industrial societies. However, our current social and economic context is created by innovative business, as it is certified by the latest market capitalisation of the more valued companies in the world: Apple, Google, Microsoft, Facebook and Amazon.

Currently, scientific and technical innovations are permanently linked, since transformations in science have functional implications and advances in technology affect the development of science, creating new products and services. These new products, services, technologies and science change the way work is organised, and thus have axiological implications in the work environment. Technology affects our collective interpretations and valuations of what has worth, which in turn affects and transforms our society. For example, in his latest book Harari (2018) wonders what could happen in the near future, when nowadays financial markets are managed by artificial intelligence in the form of algorithms, in order to avoid human mistakes as the "fat finger error", due to the wrong input of critical data (Stafford et al., 2019). If financial markets cannot be understood by humans, how can governments make political decisions based on financial markets? Will political decisions also be found on artificial intelligence?

Our society is radically different from that of hunter-gatherers, agrarianauthoritarian or even industrial because the rate of creation of new products and services is unprecedented, never seen in any other time in human history. This rate of change affects the way we perceive, interpret, value and act in the world. This rate of unmatched change is not only exceptional due to the consequences of these new products and services but to the speed of the change process itself. The central economic engine of technoscientific societies is knowledge creation, innovation and continuous dynamic transformation.

Therefore, nothing is fixed, permanent, nor immutable (Lyotard, 1984). In a society that survives thanks to change, where knowledge creation is the base of our survival. Knowledge is a creation, modelling of how reality is; it is a reasoned creation; it is not thought to be permanent (Popper, 1972: 300). Knowledge is a simplification of the world, and our theories are better or worse predictors of that reality (Popper, 1963: 302_325).

Also, scientific and technological change impacts collectives axiologically. Individuals for first time in human history understand that our knowledge, our organisations and our values are all human creations and as such, the success or failure of those creations will depend on the quality of individuals and groups that develop them (Corbí, 2010). Thus, our epistemology is not mythical; we know that our knowledge, our interpretations, our valuations and our engagement to action are just models, possibilities that might be useful now for several purposes, but might change when required. These models might be wrong and possibly could precipitate the human race to extinction.

Although a non-mythical epistemology fuels the knowledge creation engine of our survival, it is also possible that this epistemological requirement is not prevalent or taught, and thus individuals hold still fixed beliefs and uncritical assumptions which hamper the creation of knowledge. Accordingly, management studies and practice could benefit from learning this epistemological requirement.

Thus, we know that the problems we encounter and the uncertainties we face at societal, organisational or collective level cannot be solved through old precepts, old norms, devised for extinct situations (Lamo de Espinosa, 1996), because we have a non-mythical epistemology, so nothing has to be in a specific way. In this new historical situation, never lived before by the human race, the normative milieu, moral and legal, is going to be challenged. Therefore, a very weak adhesion to norms and culture will be the norm (Lamo de Espinosa, 1996). Thus, understanding this challenge is paramount to our success as business organisations and society.

Therefore, if it is the first time in human history, human collectives are continuously re-interpreting and valuing that which has value, because science and technology are forcing us to do so. Then, we can hypothesise we cannot continue holding old minimal cultural constituting configurations which were developed attending to ways of survival which were not centred in knowledge creation. A logical consequence of this fact is that norms and morals should rapidly change. Only those interpretations and valuations that orient individuals and collectives towards actions directed to achieve knowledge creation will be pursued and understood as valuable because these interpretations and valuations ensure survival.

Requirements for organisations have changed profoundly, thus affecting the managerial function. None of the two options, that of rational or normative approach is focusing on the need for knowledge creation. Thus, we need to investigate which are the axiological requirements of technoscientific societies.

1.2.3. How does management practice understand the current business environment?

One of the principal diagnosis in the latest study from IBM (IBM, 2010a) based on personal interviews with over 1,500 CEOs (Chief Executive Officers) from around the world was the increasing economic and business complexity. Approximately 69% of respondents forecasted that the environment would be more volatile, i.e. more rapid and with more profound changes, 65% of CEOs estimated there would be a lot more uncertainty, 60% reckoned that there would be a significant increase in complexity, and finally 53% expected many structural changes in the economy and society, claiming as a feature the requirement of continuous change. Given this highly uncertain outlook, CEOs consistently emphasized "creative

leadership" as an answer. However, asked about their readiness to deal with this increasing complexity, only 49% said they felt ready to face these challenges. Thus, the report was a clear recognition that to the minds of CEOs the world of uncertainty that they encounter has no recipes.

1.2.4. What is research advising about creativity and innovation development? How to promote it? Alternatively, how not to promote it?

Prabhu et al. (2010) conducted extensive research on 759 companies from 17 countries analysing all factors hitherto considered key to organisations' innovation. This study offers interesting practical insights. First, it focused on the "what" that goes to the "how". The study breaks up the most common myths of how innovation is achieved in organisations and emphasises the importance of how. It concludes that the organisation's culture is the crucial factor determining the success or failure of innovation in organisations (Prabhu et al., 2010). Though this was the result of their investigation, the enquiry did not define what was culture's definition and how did it impact innovation.

The study focused on investigating which were the crucial factors, for national policies and companies, to instigate innovation. It tested whether these variables had any impact resulting in innovation. Their investigation concluded that these traditional variables had to be ruled out as influencers of innovation, in fact, were considered irrelevant.

The first variable eliminated as an influencer of innovation was the organisation's country culture. Previously it was thought that a country's culture impacted an organisation's potential for innovation, guiding how organisations were structured and managed and thus shaped the possibilities of creation and innovation. For over thirty years, the country's culture and specifically Hofstede (2010) theories were considered crucial in promoting innovation. However, currently, the effects of globalisation and the existence of a global consumer have erased the precise boundaries of cultures, as we knew them, and have questioned Hofstede's conceptualisation and its explanatory value (Nakata, 2009). Thus, this study confirms that innovation is independent of the country's culture where the organisation is located.

Another measure widely used to encourage innovation, and that this study also measured is to increase the number of people engaged in the organisation's research and development. In this case, Prabhu et al. defined this variable in two ways. First, as the percentage of dedicated people to research and development and second as the

percentage of expenditure on research and development with the organisation's sales. It was found that none of these two variables helped to predict the degree of innovation in a company.

Surprisingly, the degree of job qualification in the organisations' countries did not explain the level of innovation of these organisations. In this case, to measure the skills of the workforce the following measures were used: the availability of scientists and engineers, the quality of research, quality of business schools, the number of people dedicated to innovation by 1000 people nationwide, and finally the percentage of GDP devoted to education.

Capital's influence on innovation development was measured attending at the sophistication of the financial markets, the robustness of the banking system, the easiness to credit access, opportunities for venture capital, and per capita spending in research and development. Other variables measured were: religion, government policies to protect intellectual property, university-industry collaboration, government subsidies to companies for research and development, and finally, the government's promotion of technologically advanced products. None of these variables was able to determine the degree of organisation's innovation.

This study turned upside down the previous hypothesis of the direct relationship of these countries cultural, technical and scientific factors to predict the degree of organisation's innovation. Moreover, the study wanted to assess whether financial and economic policies were relevant to developing innovation. There was the argument that organisations without access to financial markets and appropriate economic policies could hardly innovate, as Drucker (1993) had also advised. However, neither the ease or difficulty of these financial and economic policies was shown to constitute a critical factor for innovation, again challenging sustained academic, political and social assumptions.

Hence, if none of these items favours innovation, then which factors are significant? Indeed, as stated in this study, the convergence of development innovation policies in various countries supports the results' explanation. In any case, what the research shows is that none of the variables commonly measured as factors of innovation is vital in predicting the degree of innovation.

Admittedly, the results of this study cannot leave anyone indifferent and call for a realistic interpretation of the conclusions. Similarly, we know there is not just one way to manage, or a best organisational structure, we know that there are many ways to innovate (Angle and Van de Ven, 2000). Thus, the study suggests that it is not what we do. It has been proven that those previously considered essential variables are not a factor for innovation. Hence, the vital issue is how we do what we

do, in other words, which are the manners, behaviours, relationships and attitudes operating in our organisation.

1.2.5. From the "what" to the "how". Another twist from scholars in management studies

Christensen (1997), one of the most prominent researchers in the management of innovation, has developed a successful career analysing the innovator's dilemma. Its contribution is to highlight that the current organisation's successful creations and innovations will be the cause of future organisation's failure. Although success might provide managers with self-confidence, most of the time, success undermines experimentation and the creation of variety (Augier et al., 2015).

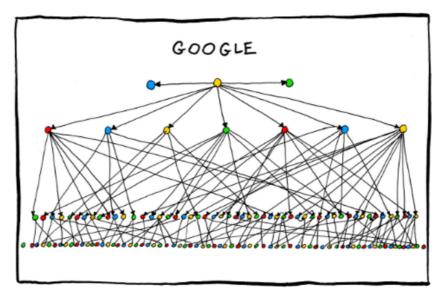
Similar contributions to the ones above have permeated management and business schools, and thus, the ability to renew current successes, by being detached from them, is a crucial ability. Therefore, Christensen's warning is to unfocus the organisation's current achievements and focus on the attitude, the ability to see new situations and new opportunities. Christensen interest is in driving organisations towards continuous change; for this reason, his research has focused fundamentally on analysing how various forces act against change and innovation.

Christensen argues, in his conclusions, that mental models are organisations most decisive and pivotal value. These mental models allow innovative individuals and organisations, first to understand the forces acting against innovation, and second, to develop a business proposal that "makes no sense" to the competition. Thus "no sense" means that innovators can understand reality in such a radically different manner from the status quo, that this "new way" is "incomprehensible" to others. These visions and understandings are challenging to replicate, at the initial stages of the innovation, and hence constitute the foundation for competitive advantage.

Christensen claims that successful companies are hopelessly biased towards a specific way of understanding the world and therefore fettered to a way of doing things, and this becomes the source of their demise. Examples abound, Motorola in the 90s was the world leader in mobile telephony and in less than ten years was superseded by Nokia, which in turn was succeeded by Google and Apple. Barnes & Noble bookstores suffered the same fate being overthrown by Amazon. Kellogg's cereals show a clear example of the difficulty to renew mental models; it took them twenty-seven years to launch a new product (Black and Gregersen, 2003).

Drucker (1993) advises organisations to develop a systematic search of constant change, an attitude, an ability that can be learned and developed. According to Drucker, this capacity is not automatic, requires work and dedication. He recommends focusing on some specific sources of innovation, for example, he suggests investigating everything that comes unexpectedly, inconsistencies, changes in the interpretation of the world, new knowledge created, and finally changes in processes, structures and demography. Thus, Drucker underscores this ability to see, to interpret reality with "new eyes". This understanding is not automatic but requires constant work of "re-enactment". Recently, Chesbrough (2011), an expert of open innovation, has highlighted the radical change of mental attitude to develop continuous innovation.

Google (Girard, 2009; Tan, 2012; Steiber, 2014; Bock, 2015), a proven innovative company, does not follow Christensen's nor Drucker's proposals committed to expanding the capabilities of understanding reality in new ways. Google monitors a less scientific approach and a more pragmatic one; I would dare to classify it as Darwinian. Their method is to select only those more creative and innovative group projects while allowing the rest to fail. They systematise their approach by pursuing the following measures: 20% of the time is left freely available to members of the organisation. Hence a significant number of projects are created and attending to portfolio theory a number of these projects is expected to succeed. Google is not organised in divisions but around small groups able to informally organise themselves following a constant clarification of values which direct the efforts of all. Thus, failed projects and teams are dismembered and form new teams and new projects. Google's innovation approach appears adequate; it could be defined as a sort of trial and error for innovation. Their approach requires constant self-organising teams able to form new groups and self-managed by common Google objectives to which all organisation's members adhere to (Manyika, 2008).



Google organisation in creative teams up to a level. Tunguz 2016

To classify Christensen, Drucker, Chesbrough or Google's approaches as a means to organise innovation is a bold statement. As Steve Jobs argued, it is impossible to systematise innovation (Berkun, 2010). One can try to handle innovation's conditions but cannot systematise nor creativity or innovation. Apple innovation's structure was organised and thought in a different way to that of Google, heavily dependent on the creative views and ability of Steve Jobs.

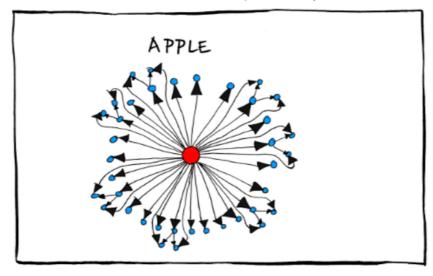


Figure from Tunguz (2016)

Although creative leadership is critical in achieving survival in creative environments, it is also valuable to challenge commonly held conceptions of what management is about or the importance of specific management jargon. For example, regarding strategy, Chia and Holt (2009) argue for the need to develop a "no design strategy", and Prahalad and Krishnan (2008) defend the development of the "Velcro"

organisation defined by its ability to continually reinvent itself, able to detach and reattach itself with extreme ease to new strategies and processes.

These new concepts are radically new in their approach to what is a strategy. A strategy is understood as the ability to develop how to act. However, Chia and Holt (2009) argue that current organisations require "negative capability" to deal with uncertainty. This ability is not solved by developing actions. On the contrary, it is an ability able to contain acting, focused on reflecting more widely and avoiding reducing ambiguity to easy and fast formulas for action. It is the ability to manage organisations flexibly, to regularly discover and create new ways of organising. Inevitably this approach leads to the formulation of a "strategy without design" contrasting with the abundance of formulas repeatedly appearing, and quickly forgotten, by its reductionist stance, and causing plenty of problems for organisations (Jackson, 2001 Furnham, 2004). Therefore, in situations of change and uncertainty, a "recipe" is a to be "without a recipe".

Thus, the question becomes how to develop individuals able to deal with ambiguity and not be trapped by it? How to be able to live with uncertainty while simultaneously not getting lost in relativism? How to be able to live in the inconsistency of everything while having an integrated approach? How to be able to create new interpretations and new valuations while living in a world of fixed interpretations and valuations?

1.3. First axiological demand: Responsible management, responsible leadership. Consequences for managers and leaders.

1.3.1 The birth of leadership, in the world of management

Leadership has been a subject of study since the beginning of the 20th century, but the big boom started at around the 1980s (Rost, 1991). There seemed to be outright acceptance of the differences between management and leadership (Zaleznik, 1977). The manager was defined as the problem solver, and the leader was described as that which exerts a practical effort to direct affairs. Managers' definition was centred around managing the current state of affairs, and the leader's explanation was about focusing on how to get to a future envisioned plan.

However, Rost argued that many of the efforts directed at distinguishing between leadership and management, had two main errors, either the difference was based on the great man/great woman leader and thus defined the rest of the world as being managers, or the implication was that leaders were good managers. Thus presenting, either an elitist view of leadership compared to management, or a success view of leadership compared to management (Rost, 1991).

Though both leadership and management were claimed to be equally important for business (Bennis and Nanus, 1986), the solution to the then named management mayhem was viewed in leadership. There was a comprehensive agreement that the problems that organisations encountered in the '80s were due to a lack of appropriate response to the challenges of an ever more complex world, being overmanaged and underled, thus giving excessive importance to efficiency, to the mastering of routines, at the expense of effectiveness, vision and judgment, connected to leadership (Bennis and Nanus, 1986).

Management was being challenged by leadership. The leader was seen as not controlling, directing, stabbing or manipulating because he was not seen as exercising

power but uniquely empowering others (Bennis and Nanus, 1986; Heifetz, 1994). Managers were being asked to take on leadership, thus challenging management legitimation to exert control through domination "...as they are transformed from robots blindly following instructions to human beings engaged in a creative and purposeful venture" (Bennis and Nanus, 1986: page 91), contrasting with the main ideologies describing the management function in the 20th century.

Zalenik (1977) argued that the same type of people could not perform leaders and managers functions. However, nowadays it is understood that leadership can be developed (Bennis and Nanus, 1986; Heifetz, 1994), and it is not an essential characteristic of some individuals (Scherr and Jensen, 2007) and thus management and leadership can potentially coexist in the same person. Further, Rost (1991) differentiated both phenomena by arguing that good managers cannot be described as leaders, because if it were so, then there would be no justification in distinguishing the two phenomena. However, traditionally leadership in the world of business has been associated to managers, because they have the legitimacy to exert control, through either management or leadership, either by their "superior" technical-organisational knowledge or their "superior" leadership role. Though the academic characteristics of both definitions could be different, it is also manifest that managers are those who commonly perform leadership roles in business.

1.3.2. Responsible management is framed as needed

In 2007, the United Nations launched an extensive effort to orient managers and leaders towards responsibility. This initiative followed the woes of scholars and the public in general worried by the latest corporate scandals. In fact, from the year 1800 to 1969, there was an average of 4.2 corporate scandals per year in a global sample of 26 countries. This average increased to 33.1 corporate scandals per year in the period from 1979 to 2015 (Hail et al., 2018). Recently the European Union has started trying to curb ethical misconduct by developing new laws (Powles and Vleiz, 2016). It is not clear there has been much success yet.

A search on Google or Fortune magazine will show a summary of the leading corporate scandals of the year. So far, the highlight of this century has been the economic crisis started in the US in 2007-2008, which on the 2011 report on the inquiry led by a US government commission explained how approximately \$11 trillion in household wealth had vanished, leaving millions of Americans unemployed. One of the causes unearthed by US government commission report was the lack of ethics and accountability of the financial players.

Corporate scandals are not only due to a lack of ethics and accountability but are also connected to evasion of taxes, financial abuses and potentially affect all of us at the most basic level, effectively impairing our rights and affecting our democracies. Examples of dubious strategies abound, the Amazon speakers that are in fact a spying device (Matsakis, 2017), Google algorithms used to wage war (Pellerin, 2017), Facebook role in the suspect Trump campaign (Gassegger and Krogerus, 2017) and Facebook's contribution to the Myanmar genocide (Roger, 2018; Miles, 2018). The recent scandal of the European Food Safety Authority which approved Roundup commercialisation, a controversial Monsanto's pesticide, based on 'scientific' materials developed by Germany's Federal Institute for Risk assessment (a government agency), produced from copy-and-pasted tracts of Monsanto studies, now part of Bayer Corporation (Neslen, 2019).

Management education and business schools are not left untouched by this increasing wave of corporate scandals, and some scholars argue that the fault falls squarely on what is taught at business schools (Mintzberg, 2004; Ghoshal, 2005; Pfeffer, 2005; Pfeffer and Sutton, 2006; Hühn,2013). Others highlight the business schools are not teaching the "right" particular subjects, mainly ethics, and thus are not encouraging managers to behave responsibly (Cowe, 2000; Garten, 2005; Holland 2009; Osiemo 2012; Hibbert and Cunliffe, 2015).

Although there are a wealth of educational programs and institutions adopting the principles of the United Nations' Principles for Responsible Management Education (PRME) (Rusinko, 2010, Wals, 2010; Solitander et al., 2012; Young and Nagpal, 2013; Waddock and Lozano, 2013), there is no agreed definition for the term responsible management (Nonet et al., 2016). More worryingly, there is no such definition in the program of the United Nations itself, although there are six principles which orient the desired management education.

A different case is that of responsible leadership, which is defined as ideals of societal well-being, moral decision-making and a sense of accountability to others (Doh and Stumpf 2005). This responsible leadership entails an attitude of standing out for what one believes is right (Hibbert and Cunliffe, 2015; Gentile, 2017). The ideas about societal well-being are those espoused by PRME focusing on human rights, environmental rights, labour rights and anti-corruption. The focus of Responsible leadership has changed from normative approaches of individual actions to multifaceted theoretical, conceptual and methodological foundations of macro strategies (Miska and Mendenhall, 2018).

Also, a connected focus to that of responsible management and responsible leadership is that of corporate social responsibility. The field of CSR is broad and

complex, with multiple approaches and theories (Albareda and Waddock, 2018). Although it is difficult to understand how corporate responsibility and responsible management are singularly different from the analysis conducted in the field of corporate social responsibility. Other close connected concepts are those of corporate conscience, corporate citizenships, social performance, sustainable responsible leadership (Wood, 1991), and sustainability (Painter-Morland et al., 2016).

Moving from theoretical approaches to practice, the European Commission has launched a program to foster corporate social responsibility in Europe with a clear definition "the responsibility of enterprises for their impacts on society" (European Commission, 2011). Although the report portrays the responsibility as a voluntary corporate decision, it also calls for a renewed engagement of country authorities to play a supporting role by drafting the necessary regulations to foster corporate responsibility.

Even though there is a European strategy, it is also true that the understanding of what CSR is, and what it means in practice dramatically differs from country to country, showing the diverse ways in which ethical issues are tackled (Aßländer et al., 2016).

However, more macro issues are not depending on the national legislation or the different understandings about economy and politics but depend on how ethics are understood, and which are the theories in use for decision-making processes. At a macro level, generally, the understanding of ethics and decision-making processes is quite similar in the Western world.

In 2015, the Journal of Management development devoted a journal issue to study the failure of responsible management education. Many barriers were detected (Cornuel and Hommel, 2015; Doherty et al., 2015; Dyllick, 2015), and some were claimed to be the philosophical assumptions underlying the responsible management approach (Painter-Morland, 2015). One of the recent issues highlighted in the views of promoting social values and ethical values is that the normative theories that are used in teaching counteract their positive intentions; thus, the method undermines the purpose (Moosmayer et al., 2018).

Painter-Morland (2010) asks a similar question when rethinking ethics codes, do we know the value priorities of our collectives? This question is assuming that there are already established "good values" and all the matter is about re-ordering their priorities. Although there is a questioning about the underlying system of values which is not commonly posed in discussions about responsibility, in this case, it is limited to its prioritisation. In another recent paper, Painter-Morland (2015) also focuses on epistemological issues at the level of prioritisation and understandings.

However, Painter-Morland is unable to leave aside a strong normative emphasis. Thus, those epistemic are not analysed following a scientific approach. These issues are heavily tinted by her already chosen normative prioritisations.

Many times, as in the case of Schwartz model of integrated ethical decisions making (Schwartz, 2016), decision making is portrayed as complete because it can provide a rationalist-based approach and a non-rationalist approach by integrating emotions. Also heavily influenced by the individual moral capacities, an understanding of the situation and a robust ethical "infrastructure" with clear sanctions for misbehaviour as well as weak personal constraints that allow individuals to behave ethically. The underlying assumption of this decision-making model and others is that all ethical decision-making approaches are based on the individual. This is so because the assumption is that responsibility falls squarely on the individual conducting the action, in fact, it sounds counterintuitive to argue that decision making is not a uniquely personal affair but depending on the collective axiological project of the community. Also, CSR is many times approached as a framework devised to help in the decision-making process of individuals or corporations, without any consideration to collective axiological projects in place.

Moreover, responsibility etymologically comes from the Latin "respondere", which means able to give an account. Therefore, by definition, it requires an audience, a collective on which that account is meaningful. What happens when the audience is not there? Alternatively, interested? Are we taking for granted the audience? Which are the central tenets that are unquestioned? **Precisely, responsibility cannot be given in the void; it requires a collective and thus a collective axiological project on which the actor can respond for her acts. If metanarratives do not structure collective interpretations, then what remains?**

Finally, another demand, frequently connected to the discourse of responsible management, corporate conscience, corporate citizenships, social performance, sustainable responsible leadership and sustainability, has to do with the development of values and ethics. Many times, these values and ethics are connected to spirituality and because there is a group of scholars in management that focus on spirituality religion and management, I became interested in understanding what could be the contributions of spirituality to the type of managers that we need.

1.4. Second axiological demand: Spirituality claimed to be the source of ethics and values

1.4.1. Is spirituality a possible source of values and ethics?

The origins of the study of spirituality in management start in the mid-nineties of the 20th century in the United States. The discourse of this field of study intents to show how it could be interesting to research about spirituality for the benefit of organisations because it is viewed as the foundation of values and ethics.

I have tried to unearth the beliefs that underlie most read articles in organisations' spirituality, thereby defining the heart of the arguments of the discipline of spirituality in organisations. There is abundant research on spirituality in organisations, hence by focusing on the most cited articles I provide an analysis of the core of the discipline and therefore this research work can be considered meaningful and relevant in interpreting the field's main features.

To get an accurate view of what constitutes the core of scientific studies on spirituality in management with a minimum of scientific rigour, I have chosen to focus on the ISI Web of Knowledge database which references English language articles published in peer-reviewed journals. In total, I have analysed forty-six of the most cited articles on spirituality in organisations.

I chose the number of citations as a proxy for the core journals, defining core as those that were most cited. A different option and maybe more relevant would have been to choose the most read books. However, there was not a database where I could rely on to gather such information. Hence, I abandoned this option for the lack of method in the selection process. A choice would have been to select those books referenced in the most cited journal articles, however the hypothesis that those books define the core of the books researching on spirituality in organisations is not

tenable. Thus, I limited this research to the most cited articles about spirituality in peer-reviewed journals.

By using the ISI Web of Knowledge database, this research is subjected to their indexation mechanisms. I do not know how the database performs the journals' selection. However, the ISI web of knowledge is the most known and referred peer-reviewed journal database.

This journal selection on the ISI web of knowledge database was conducted on March 7, 2010, with the term "spirituality" in the title. Hence, the range of articles was set that day, and thus, any following change in the citation data is not present in this study. I chose the word "spirituality" in the title as the selected item instead of its appearance in the topic section, I assumed that "spirituality" appearing on the subject matter indicated a more direct approach to the subject of spirituality.

All these choices resulted in a total of 5,274 peer-reviewed articles that had the term spirituality in the title. The most cited article was "Religion, spirituality and medicine" which was published in the medical journal "The Lancet" with a total of 241 citations. From this initial selection of articles, I proceeded to select those related to management and organisations manually. From this manual pick, the first item related to organisations was in the 38th position with a total of 46 citations; the title of the article was "Spirituality at work. A conceptualisation and measure "(Ashmos and Duchon, 2000).

The articles ranging from the article numbered 869 to the article numbered 5,274 were cited only once or never. I needed to fix the limit of what was considered core to the discipline of spirituality and organisations and I decided to stop at article numbered 1,000 of a total of 5,274 items. Hence, I obtained a total of 46 articles dealing with spirituality in organisations. The last two articles on the list of 46 were cited only once. The oldest article was from 1996 and the most recent from 2008. Thus, I focused on these 46 articles, which constitute, for this research, the core of articles of spirituality in organisations.

This thesis aims to re-imagine management by developing an axiological approach for knowledge creation-oriented organisations. Thus, it was essential to clarify which were the possible contributions of the field of spirituality management and religion. I had to devise a research design that made this analysis possible and manageable; for this reason, the results cannot be thought to be exhaustive; I only provide orientations. This study is epistemological because I aim to shed light on the authors' approaches to the discipline of spirituality in organisations and to show the assumptions that underlie their contributions.

1.4.2. How is spirituality treated in the forty-six most cited articles about spirituality in organisations?

The vast majority of articles reviewed intended to contribute with different approaches to improve employee's situation and the 'organisation's conduct. There was only one article that was sceptical about 'organisations' spirituality: Brown (2003).

These articles consistently show a considerable number of circumstances in which individuals have no purpose or meaning in their work. Also, it is claimed, individuals, in many instances, need to repress their emotional and sensory capabilities rendering them non-integrated, at an individual level. Furthermore, at a social level, many times they lack the sense of belonging to a community. All of these factors negatively affect their lives (Mitroff and Denton, 1999). Whereas simultaneously, It is generally understood that organisations have to engage in producing products and services that positively serve humanity (Levy, 2000; Sheep, 2006) and that the economy is at the service of humanity and not the other way around (Jackson, 1999).

So, the discipline of spirituality management and religion emerges from this preoccupation about the dehumanisation and exploitation of human beings in our society. This concern goes beyond the organisation's performance; it also comprises society, politics and the economy. The disciplinary efforts seem to be oriented towards providing organisations with a spiritual vision and ethics currently deemed obliterated from organisations. Thus, authors claim their current spiritual focus in organisations is a necessity demanded by the economic and social system, not just a factor to take into consideration, nor an extravagance of advanced societies.

Therefore, it is argued that organisations need to cultivate their spiritual dimension, and thus this economic and social requisite is understood as not intrinsic to the wellbeing of individuals but affecting 'organisations' positive economic impact. Hence, the discourse about efficiency has also penetrated spirituality in 'organisations' discipline.

Some authors detect this instrumentalisation (Benefiel, 2003; Milliman et al., 2003) and argue that spirituality should not be present in organisations due to its significance to increase profits, but because it is the right decision because that is what should be done. This approach justifies spirituality almost as a duty, even sacred, it is rooted in the belief of the uncontested value of spirituality and its validity in organisations. Only a few scholars claim that spirituality should be valued in itself and not by the benefits it can bring (Krahnke et al., 2003), without asserting a mythical justification of 'spirituality's value. However, when spirituality is justified by its practical effects, and these might influence economic efficiency among many other

variables, it could be possible that spirituality is distorted to comply with those practical demands.

The issue of instrumentality is explored not only in its organisational aspect, as I have shown, but also at the personal level. It is claimed that 'humans' spiritual quest is intrinsic to being human because humans need to search for meaning in their lives and their work (Ashar and Lane-Maher, 2004). Thus, it is maintained that spirituality provides meaning and direction to one's life.

Scholars of spirituality in organisations want to prove the rigour of their scientific research, and thus submit spirituality to the precise requirements of the social sciences. To do so, they follow the following procedure; first, they limit spirituality to a set of characteristics that can be measured. Then, they measure these features and ascertain whether these attributes of spirituality have any impact on 'organisations' results. This "scientific" approach is regarded as contributing to foster interest and growth of the discipline of spirituality in organisations.

However, this conceptualisation and the alleged pursuit of metrics could negatively affect 'spirituality's development, not because spirituality is sacred, but because by limiting spirituality to a specific set of characteristics, it becomes increasingly likely to understand spirituality as those characteristics. Therefore, practically, if we intend to develop spirituality to improve our leadership or our organisation, we are expecting those improvements to be biased in a particular way. This limited manner depends on our expectations, desires, fears, and therefore, are entirely submitted to our narrow concerns. Therefore, if we pursued the use of metrics, we would need to be mindful in understanding how to measure the individual and 'organisation's results of a decentred epistemic approach to life.

In addition to concerns about 'individuals' dehumanisation in organisations and their desire in promoting business practices in favour of humanity, other scholars justify their interest and their contributions to spirituality in organisations as follows:

- Developing and cultivating a spiritual life requires all individual dimensions to be integrated because individuals spend much time at work, it is, therefore, appropriate to facilitate spirituality's development in the workplace (Ashar and Lane-Maher, 2004).
- Spirituality is a human dimension, and it is, as such, already present in individuals' life. Therefore, it makes sense to study how it is part of individuals' job and also part of the organisation's culture (Gotsis and Kortezi, 2007).
- Spirituality needs to be researched with rigour, scientifically and avoid lax approaches as those of the New Age, which render people confused (Mitroff and Denton, 1999).

• It is argued that scientific approaches prevent the use of spirituality to manipulate employees and organisations. Hence, their research efforts discern between what can be named as real "spirituality" and that which is fake (Dean et al., 2003; Milliman et al., 2003)

Therefore, they claim their theoretical and empirical research contributions will create a strong foundation for implementing spirituality in organisations. One of the first qualifications they argue is on the fundamental difference between spirituality and religion. Religion is seen as divisive, dogmatic, ritualistic, intolerant, and excluding those who do not share a particular belief (Mitroff, 2003). Instead, spirituality is conceived in a personal way, universal, tolerant, open and inclusive.

Although many scholars accept this separation between spirituality and religion, however, one crucial consideration arises, because from where is spirituality emerging? Many warn that without a religious foundation is impossible to cultivate a meaningful spirituality. Thus, though there might be many spiritualities, only some can indeed be correctly called spirituality.

There are many questions about this issue. For example, what happens when there are different spiritualities in the organisation? The underlying implicit assumption in this question is that spirituality is quite similar to religion, because it is thought that it creates problems, division, and therefore, it is understood as exclusive. In the same vein, another question: what happens when individuals are spiritual, and organisations are not? Alternatively, what if organisations are spiritual and individuals are not?

Also, scholars consider that in increasingly pluralistic societies, it is hardly impossible that a dominant religion could be used as a basis for social and organisations spirituality development (Cavanagh, 1999). It is advised that to use religion as a social legitimation system can lead to mistrust and the tearing of democracy. Since the enlightenment, religion has been understood as a source of irrationality, superstition and opposed to the rationality of science (Cavanagh, 1999).

Interestingly, many people from the United States do not have a direct hostility to religion, but they tend to trivialise it, to treat it as a hobby or an emotional outlet. They mention God, in many instances, as a formality, but for people from the United States is not acceptable to allow the entry of religious beliefs in discussions of public policy (Cavanagh, 1999). Therefore, an approach defending the entrance of religious belief in organisations would find opposition from managers and the United States public because it would be hostile to organisations' diversity and inclusion policies (Forray and Stork, 2002).

Hence scholars avoid using religious language and religious views because, for a vast majority, spirituality and religion are different phenomena. Although some scholars do not explicitly acknowledge such separation, and foster, for example, a distilled Christian spirituality directly from religion (Delbecq, 1999). Although most scholars intend to show that spirituality and religion are different phenomena, how spirituality is argued is mostly religious. It could be described more accurately as a Christian religious approach.

Thus, one of the key insights is the recognition of some contradictions in the discipline of spirituality in organisations. First, authors note the growing instrumentalisation of human beings, but at the same time, in a vast majority of cases, instrumentalise spirituality in organisations. Second, authors want to prove that spirituality has positive effects in organisations, and this leads them to define and to measure spirituality. This definitional operation of spirituality is only possible if researchers define individual characteristics to be measured; however, these characteristics are extracted mainly from the Christian religion. Third, scholars want to separate religion and spirituality, because religion promotes division and exclusion, but as I have already argued, this disassociation is undermined by the implicit use of religious assumptions in their spirituality research. Therefore, these contradictions allow me to support the need to provide for a new solid foundation upon which the discipline of spirituality in organisations can move forward.

Here below, I have compiled some indicators on the guiding conceptions I discovered in the most cited spirituality in management texts:

- The word spirituality is never questioned but accepted as it is. This lack of word examination implicitly agrees with the existence of spirit as an entity.
- Spirit is thought as opposed to matter, and human beings are thought as possessing a soul or spirit and a body.
- This spirit, in many cases, is considered transcendent and connected to energy, an entity, a power, a God and to a plan. It is connected to some higher existence, and this superior being guarantees the legitimacy of this spirituality.
- Furthermore, some authors claim not only the transcendence but the immanence of this spirit. They state that this spirit is in everything, and we are part of this whole.
- It is advised that the way to deal with immanence is to feel connected to everything.
- There is a guide, a supernatural entity that has a purpose for everything.
- The goal for us is to move towards spiritual development.

- This spirituality is also reassuring, because no matter how bad things go, somehow all will be positively solved.
- Our aim, our purpose is to do good.
- •Spirituality is understood as sacred; therefore, it should not be instrumentalised.
- There is a belief that human beings can be improved and there is a path for it, given by spirituality.
- There are some specific values that, if existing in an organisation, reveal a spiritual organisation.
- Spirituality is a personal phenomenon.
- Spirituality is understood as a belief structure that leads to the destiny, we all desire.
- Spirituality is not rational, hence any commitment to it can lead to fanaticism and therefore, irrationality. Any "devotion" to what is "not seen" can lead to violence in organisations.
- Spiritual employees demonstrate a higher sensitivity, commitment and beneficial personal attributes such as increased joy, compassion, serenity and meaning at work.
- Several values define spiritual individuals. These values are universal and are determined by the great religions of humankind.

In short, the problem with the popular conception of spirituality is that although is claimed that religion and spirituality need to be separated, because beliefs are regarded as unsuitable for organisations in the 21st century, disassociation does not occur and hence spirituality continues being considered closely connected to religion. Thus:

- 1. Spirituality is thought in specific ways following specific beliefs. If spirituality's definition could be separated from religion, then this spirituality would be more open, on the contrary, it continues to be related to religion. Furthermore, it is argued that spirituality cannot exist without religion, then
- spirituality is wholly defined in all its terms by religion, in what must be believed and thus on how one must act.
- 2. The connection of spirituality to religion is not explicit, precisely because the belief system is designed so that this understanding is not possible. A dogmatic conception of spirituality implies that other possibilities cannot be appreciated.

- 3. The underlying assumptions of spirituality are singularly Christian, demonstrating that the field of spirituality in organisations shows little penetration of non-Christian wisdom traditions of humanity.
- 4. These views also affect scholars' research method. Unquestioned hypothesis lead researchers towards accepting beliefs that guide them towards positivist methods (King and Crowther, 2004). Many authors criticise these positivist approaches (Dean et al., 2003; Fornaciari and Dean, 2001; Freshman, 1999; Heaton et al., 2004; Krahnke et al., 2003; Lips-Wiersma, 2003) and advocate for a qualitative methodological approach their underlying views remain untouched.
- 5. Spirituality in management treats spirituality as a personal choice, and religion in management is conceived within a framework of forms, rituals and structure, exclusive and divisive. Spirituality is presented free of ways, inclusive and subjective. This conception accepts an abundance of viewpoints, and thus, criticism is absent. It is argued that all opinions are relevant because these respond to life experiences and personal stories of equally, presumed wise individuals. Therefore, there is a relativism, where everything is allowed as long as it is well explained-, hence downgrading any opportunity to study spirituality in management in a rigorous manner.

Even though the vast majority of scholars approach spirituality as a remedy that can alleviate the dehumanisation and exploitation of human beings in organisations, some go further and argue that under present conditions of organisations competitiveness, creativity and innovation, spirituality becomes extremely important, and claim that only fully integrated individuals, with spiritual development, can produce these wanted creative results. However, because their approach is anchored in religious dogmas, it is highly unlikely that their proposals could be further developed in technoscientific societies.

1.5. Third axiological demand: Humanities and liberal arts in Management education

Humanities and liberal arts disciplines have gained prominence in recent years. Some colleges and universities are considering their reintroduction or reinforcement in the curriculum. Although, in some countries like in the UK, these disciplines are ceasing to be financed by the state (Parker, 2011). The expectation is that humanities and liberal arts will develop attitudes and skills in future managers favouring a better adaptation to the current challenges of a fully globalized knowledge economy. Also, humanities and liberal arts education are perceived to be able to respond to the lack of responsibility and ethics in business managers and to a lack of critical attitudes and skills to participate appropriately in the management of organizations.

Currently, business schools are the focus of attention by various agencies such as the United Nations global compact and PRME, by associations as EFMD, ABIS, Aspen, GUNI and some accreditation agencies such as EQUIS and AACSB **urging management universities to integrate ethics, issues of social responsibility and sustainability in management education.** In addition to this institutional pressure, in our western societies, there is a perceived widespread negative relationship between management universities, the financial sector and the global economic crisis we are facing.

Also, management schools are aware of their social and political accountability in developing the world we want. The power of organizations in the 21st century is evident; some are more powerful and richer than many countries. The elite of these organizations is educated in management universities. Hence, any change in the education of future managers could quickly affect how we organize our world.

Many business schools are studying various proposals on how to educate future managers to encourage beneficial management for society while simultaneously

provide management students with appropriate skills and abilities to manage organizations in technoscientific societies.

This topic could also be of interest to the educational system in general, since concerns about students' lack of responsibility are not unique to management education, and debates about the type of knowledge and skills to be developed in line with economic, political and social conditions, are a perennial concern of education systems. Here I will focus exclusively on the problems I conjecture for management education.

I do not intend to criticize humanities or liberal arts education; I aim to explain the underlying assumptions of this growing interest in management education, to avoid two problematic issues. First, to escape from the creation of unfulfilled expectations for humanities and second to dispose of humanities because humanities expectations have not been met.

1.5.1. Something new? demanding humanities in management

The emergence of management education had a promising genesis. At the beginning of the fifteenth century, the later proclaimed saint, Bernardino of Siena Albizzeschi published the first pamphlet on management, and a little later, in 1494, the Franciscan Luca Pacioli published the first book on accounting, inaugurating the beginning of management education. The earliest institution explicitly devoted to management education began in Paris in 1819. Moreover, the first management university degree was at the University of Louisiana in the United States in 1851. In Europe, a year later, the Institut Supérieur de Commerce de l'Etat and the Institut Supérior of Commerce Saint Ignace were established in Antwerp, Belgium (Engwall & Zamagni, 1998).

The impetus to establish management as university studies were conducted for two reasons. First, to raise the status of merchants and entrepreneurs, who were thriving economically but had scant social relevance. Second, because the growth of commerce and business ventures was exceptional, and there was an absence of well-prepared people to respond to these needs.

In these early times, the studies were highly technical, and although they had a "university" status, management education did not enjoy an academic prestige. As explained at the beginning of this thesis, the market economic development promoted that owners or family members did not uniquely manage organisations, but, by the emergence of a new class of salaried managers. Consequently, management studies grew and gained in importance, gradually becoming more specialised in management,

rather than exclusively being technical and commercial. Moreover, simultaneously to this increased demand for management studies, universities started to develop management theories based on the scientific review of management problems, and gradually became the research universities, we currently know.

Several investigations have been central in defining management education. Earliest systematic studies on management education were carried out back in the 50s in the US. Thousands of interviews with teachers and people in business took place to assess the kind of management education needed. The United States, as a world power was soaring, and there was a clear interest in promoting economic growth. Pierson's research (1959) funded by the Carnegie Foundation, and Gordon and Howell's studies (1959) funded by the Ford Foundation, were central to these management education innovations.

These studies stated that the world of the "intuitive" manager was over, the world was too complex, changing excessively and changing extremely fast. Hence, first, it was argued that it was neither intelligent nor appropriate to offer practical education of low academic standing because changes were such that what was learned was soon worthless. These studies made it crystal clear that what was taught in most universities had no academic rank, due to low professors' quality, subjects and pedagogies used. Second, it was understood that it was valuable to learn scientific approaches to management that could not be discovered on the job systematically and efficiently.

These two assessments of the economic development needs, together with a series of curriculum guidelines transformed management education, made it systematic, with more academic quality and favoured an education in which the manager was "more scientific" more rational in their decision making. Thus, these reports propelled a shift towards teaching management education based on scientific parameters.

The impact of these two studies was significant; their recommendations were followed not only in the US but also in other parts of the world. In the last decade, the second Carnegie Foundation report (Colby, 2011) on management education has been published; precisely a study focused on the integration of humanities in management education. In this research, Colby et al. (2011) criticise the excessive management "scientificity", paradoxically a result of the success proposed by Pierson (1959) and Gordon and Howell (1959). Colby et al. (2011) argue that current management education innovations would demand humanities to be recovered in management education.

Colby's research (2011) generated three concerns that the earliest studies of 1959 also highlighted:

- a) How are ethics and social responsibility taught?
- b) Is there any relationship between what is taught in universities and management practice?
- c)Are we educating? Alternatively, are we merely granting degrees to access good jobs?

From these initial concerns, it was argued the need to integrate humanities in management education. This contribution is not new, in Pierson (1959) and Gordon and Howell studies' (1959) humanities integration in management education was also recommended. The significance of Colby's research is that it shows pedagogies and approaches used in integrating humanities in management education in various universities in the United States. It is noteworthy that humanities conception in the 1959 and 2011 studies is unchanged.

This compelling review raises the need to rethink previously exclusively scientific approach recommendations on managing organisations. Colby (2011) and others (IBM 2010, IBM 2012) highlight that future managers should develop a broad mentality, capable of managing complexity, therefore an ability to comprehend diverse people and cultures and a critical and responsible mindset able to respond to the challenges that organisations face.

Somehow these studies are stressing that the management of people and organisations is a complex issue. It cannot be reduced to a quantitative approach, precisely because those variables that are appreciated, such as initiative, creativity, communication, cohesion and motivation cannot be measured. Therefore, Colby (2011) proposes to integrate the liberal arts (in this case liberal arts, for a European audience, would refer more generally to the term humanities) and science, in management education for bachelor students. These proposals were developed in the USA and have been considered in Europe.

Also, there is also an internal crisis of legitimacy in management schools. Some scholars caution that research has become an end in itself without connection to the problems to which managers have to respond.

Also, multiple voices warn that many unexamined assumptions behind our research methods and their subsequent teaching are destroying management (Ghoshal et al., 1999; Ghoshal, 2005; Dameron and Durand 2011). For example, the dominant use of quantitative approaches and the relevance of optimisation variables focused in the short term are counterproductive to the development of long-term organisations. The effective use of scientific parameters and therefore measurable

decision-making indicators make managers disinclined to consider the morality of their choices or their social responsibility and prevent them noticing they are leaving aside very relevant variables for organisations' survival.

The latest American Academy of Arts and Sciences report (2013) has stated precisely that the most severe research problem in the United States is the ability to organise and create transdisciplinary collectives, the creation of organisations where people cooperate and develop synergies. In Europe, the Metris report (2009), drafted by the European Commission, also highlighted, albeit with less emphasis, the need to create an understanding of the social dimensions of creativity and innovation.

However, in both reports, the study, cultivation and development of attitudes and skills that are key to any human endeavour are underestimated and underrated, among others, how to develop good collective cohesion, openness to continuous learning, a spirit of research and communication, mutual trust, and service.

The problem we are discussing is paramount. It is more evident in business, but it affects all types of organisations, including universities, research centres, NGOs, associations, and social groups. Our organisations are acting mostly with deeprooted exploitative behaviours, with extensive predation of the environment and people. It is symptomatic that this predatory posture does not exclude any organisation, including NGOs, research centres and institutions such as universities, hospitals or government organisations. Although organisational aims could be praiseworthy, as it is the case, for example, of schools and hospitals, inter-intra-organisational relationships are lived precariously and are exhaustively predatory which condemn the feasibility of any long-term creative development.

Moreover, our technoscientific societies are defined as risk societies (Beck, 1992), because we have in our hands compelling science and technology that can cause serious problems. Hence, this predatory and exploitative attitude can have devastating effects. However, this attitude continues despite multiple calls to responsibility on the grounds of dignity, morality and ethics.

In this context of management education legitimation, and its political and social responsibility, together with the growing problem of orienting science and technology in such a way to prevent it from being a risk to life, management education universities have wanted to raise accountability by promoting a holistic education, adding humanistic disciplines in addition to current courses focused on management.

1.5.2. Diverse approaches on what is humanities

It should be noted that the recovery approaches of the humanities and liberal arts in education are diverse. In some cases, it is a cry for direct recuperation of the humanities; in others, it is claimed, an adaptation is required (Association of American Colleges and Universities, 2007; Cabot 2013). Further, many would focus exclusively on a philosophical pedagogy without proposing the adoption of humanistic disciplines or "liberal arts" subjects.

In this proposed integration, humanities and liberal arts (humanities, sciences, social sciences) are recommended as a primary education at the university level for managers. There is a selection of relevant subjects and topics that educate the whole person (Pierson, 1959; Association of American Colleges and Universities, 2007). The purpose for justifying humanities and liberal arts integrations is not to study or to investigate the frontiers of knowledge in the humanities, neither to give specialized professional training in the humanities, but the opposite is intended, to provide the student with a general understanding of various subjects (Association of American Colleges and Universities, 2007). The objective is to increase the general education level of the United States population, in conjunction with a genuine concern for wanting to keep the democratic and civic ideals of their society (Association of American Colleges and Universities, 2002; Cabot 2013). Their proposed solution is to provide a two years course of primary education, liberal arts education, at the university level.

The pretence of including humanities in universities, in all specialities, also embracing the management discipline has many standard features. First, to justify the need for its inclusion, there is an advocacy for moral, ethical, and responsibility lost values. The second important feature is that these disciplines are argued to present in themselves the solution to this axiological problem. In this second matter there are different degrees of understanding of their effectiveness, from those who think that these disciplines are such a "solution" today as they were in Ancient Greece or the Renaissance, to those who say that these disciplines have to adapt to needs and conditions of the 21st century (Association of American Colleges and Universities, 2007; Cabot 2013).

This view is associated with a university education, mostly to undergraduate programs. The main focus at the undergraduate level is conceived as a place to "transmit" information, or some might even say a way of transmitting an ideology. This approach collides directly with the current depiction of the university as a research centre, where the frontiers of knowledge of all disciplines are studied.

Somehow, though very dimly, this "transmission" of information is assumed to pass on a set of values and attitudes. However, it is not clear, which will be the values disseminated and how one can "transmit" values together with the study of disciplines.

In the proposition by the Association of American Colleges and Universities (Association of American Colleges and Universities, 2007) and Cabot (2013), there are mixed positions. In many parts of the reports, the knowledge to be transmitted is already present in the humanities, while in other parts of the texts it is argued that it needs to be investigated how this new type of humanities has to be.

Unlike other defences based on the recovery of the humanities, these two reports attempt to substantiate why the humanities are necessary while taking into account the requirements of technoscientific societies. Their effort is positive because it links the development of the humanities solution to our needs in the knowledge economy and simultaneously it is open because it recommends researching how to do it (Association of American Colleges and Universities, 2007 page 13; Cabot 2013 p 34).

Paradoxically the approximation of the European Union (European Commission, 2009) is contradictory, proclaiming on one side the need for research in the humanities, and on the other side authors' report continue conceiving humanities as designed to maintain traditions, cultures and identities. The report's authors show their bewilderment at their paradoxical conception, stating that precisely the European project is articulated as a transcendence of these cultural identities. Moreover, they puzzled over at the apparent lack of research in this area (European Commission, 2009, p. 104). A possible example of what Parker (2007) calls misunderstanding and absence of awareness, within the European Commission, of the importance of the humanities for Europe.

As explained, it is thought that educating in the humanities fosters a defence of moral, ethical, and responsible values. In these next pages, I dissect and assess what type of humanities and responsibility is being proposed; generally, when calls to integrate humanities in management education are made. In the next pages, I develop which are the primary embraced arguments to ask for the integration of humanities in management.

1.5.3. Ten arguments to justify the integration of humanities in management education

First argument: We are losing the origins of our Western culture; we do not know our history, our roots. If we do not appreciate the past, we do not have an identity, and hence we will be "inadequately human". Indeed, the source of our present lack of responsibility lies in forgetting our identity.

Second argument: The 21st century requires innovation, creativity and our art and artistic expressions work precisely in this area if we do not know and study these proposals, we cannot develop our creativity.

Third argument: Our 21st century is dominated by technology and science. Currently, we can quantify everything, but we are not able to appreciate the "good" life, which has quality. We are educating humans, not machines; hence, a focus in humanities is needed. Humanities help us appreciate quality.

Fourth argument: Our 21st century is dominated by technology and science. Fragmentation and specialization are negatively perceived because they conflict with holistic thinking and a "whole" and transformative education. Humanities provide us with this knowledge.

Fifth argument: Our 21st century is dominated by technology and science. We are focused on projecting the future and therefore, we neglect tradition, and the value of the prior knowledge we have developed over centuries. We cannot disregard this value, and we need to reclaim this knowledge, which is as valid and valuable as once was.

Sixth argument: Our 21st century is dominated by technology and science. We live without values, or instead subordinated to the desirability of effectiveness and efficiency, these are not human values but economic values. Humanities will provide us with genuinely human values.

Seventh argument: Our 21st century is dominated by technology and science. It pervades an individual's' life, impacting it. Because it becomes instrumental in all individuals' actions, this is not genuinely behaving as being human. Humanities teach that people are not instruments. Furthermore, the humanities allow individuals to develop 21st-century skills, attitudes and sensitivities beyond an instrumental conception of the individual.

Eighth argument: Our 21st century is dominated by technology and science; however, these do not create meaning, but humanities do. By studying the humanities, we can know what is humane and the purpose of our existence. Therefore, it concludes that the meaning of our life is already described in the humanities.

Ninth argument: Our 21st century is dominated by technology and science, and these are amoral. However, the humanities build responsibilities, ethics, morality, because what can be understood as responsibility, ethics and morality is already present in these disciplines.

Tenth argument: Our 21st century is dominated by technology and science, which are deprived of sensibility; however, humanities can educate our sensibility.

Overall, Humanities proposed integration in management education is defended as the recovery of disciplines abandoned by mistake, and thus to confront this error, the humanities should be re-included in management education.

1.6. Conclusions about three current axiological demands in management theory

Re-imagining management means focusing on axiological issues as pivotal for management and management education. Currently, several axiological matters are being considered in organisational theory and management studies, but somehow, these issues are not central to management practice and management education.

The claim that axiological issues should be a central consideration in management is a logical deduction of different anthropological and epistemological assumptions to the common ones. Thus, the assertion is a deduced consequence of scientific hypotheses.

However, in many instances, current axiological offers such as those of responsible management, spirituality in management, and humanities and liberal arts are presented within normative discourses of remedying businesses' deficiencies.

Interestingly, these axiological contributions are not linked to current survival needs as it is to be expected from their claims to be an integral part of management. Responsible management, spirituality in management and humanities and liberal arts are not developed because there is a need for creativity development but appeal to ways of "righting the wrongs", ways of curving exploitative current economic dynamics.

I have focused on these three axiological demands, introduced them and studied some of their limitations, which are due to keeping anthropological and epistemological conceptions from societies with already extinct modes of survival while being immersed fully in the creative dynamics of technoscientific societies.

Although organisational theory and management studies have detected and are aware of the crucial role of creative development, the significance of creativity and

its uniqueness is somehow lost with other essential concerns, for example, among other, being more efficient, developing competitive strategies, understanding the organisation ecosystem, creating partnership, empowering employees, and growing sustainably.

Also, although the creativity challenge is clear, the connection of creative development to axiological considerations is not achieved. One of the possible reasons for this lack of relationship is because individual interpretations and motivations are still understood only, as it was a personal privilege and thus a uniquely particular issue.

One of the key findings in this first part is the current theoretical disconnect of the three axiological approaches presented with collective engagement and motivations. Somehow in management theory, axiology is not related to engagement and motivation. On the contrary, axiological contributions are connected to normative positions of what is right and desirable connected to religion or ideologies.

In this first part of the thesis, there are two critical sections, one piece of arguments related to the importance of creative development and the other section concerning three diverse axiological demands. Creativity requirement is an inescapable tension, if I were to run a thought experiment and ask any bystander their opinion about how to be able to advance economically, a majority of people would argue that by being creative and innovating. Once this first question was answered, I could ask their opinion about responsible management, to manage with values and ethics distilled from spirituality or in ways conforming to humanities and liberal arts. Most probably they would think these axiological aspects are helpful and essential, but honestly not needed. These axiological proposals could be eluded because they are being eluded by a vast majority of organisations; businesses are currently surviving and thriving without these axiological considerations.

I have reviewed the way these axiological approaches are portrayed in management theory, and then in the second part of this thesis proceed to analyse these same contributions with the particular theoretical lens of axiological epistemology.

PART 2

SECOND PART: Axiological epistemology as a new theory by which to understand axiological phenomena

2.1. Introduction

In the first part of this thesis, I have presented the arguments justifying the need for the development of the axiological contributions of responsible management, spirituality, humanities and liberal arts, in management. In this section, I would like to clarify which are the assumptions sustaining these arguments using axiological epistemology.

My interest is in bringing forward that caring about the axiological systems of organisations is a critical element in ensuring organisations' survival, thus the need to re-imagine management. An idea that nowadays does not seem connected to organisations' survival, and even less to the creative development required in technoscientific societies.

Contrary to common assumptions, in this thesis, axiological systems are not taken for granted or optional decisions. I will argue that axiological systems are vital elements to consider due to their primary role in motivating and engaging collectives, in their role to create the adequate axiological conditions for survival, this is, a way to interpret, value and move to action.

I will employ axiological epistemology theory, thus orienting the understanding of axiological systems towards the creation of collective motivations and engagement connected to creative development in current survival conditions in technoscientific societies.

This new consideration of systems of values and ethics as cornerstone of individual motivation and engagement can only be understood if scholars

challenge currently held anthropological and epistemological assumptions, as I will discuss.

In this second part, I touch upon two connected themes. First, I will explain the central tenets of axiological epistemology, to then proceed towards analysing the three axiological proposals of responsibility, spirituality, humanities and liberal arts.

2.2. Principles of axiological epistemology

Axiological epistemology has been created and developed by Marià Corbí. Starting in his doctoral thesis (1983) Corbí studied the relationship between different ways in which human groups survive connected to their ways of thinking, feeling and acting, expressed in their beliefs, their assumptions, and their forms of collective motivation and cohesion.

One conclusion, of this initial research, suggested there is a constant connecting the collective axiological project and how the major part of the collective survive. Therefore, indicating that any change in the way human beings survive, their principal occupation, will produce a change in the collective axiological project that coheres and motivates that group towards survival — thus generating a social structuring.

Some essential indications come to mind when writing these sentences. First, commonly, we tend to think that motivation and engagement are a personal affair. However, when we study human collectives, we learn that collective motivations are primary to this individual aspect. Thus, individual engagement is produced already in an existing axiological framework.

Thus, Corbi's research establishes as starting consideration that there is a link between ways of survival and collective axiological projects, a connection between ways of surviving and the axiological. Thus, every time there is a change in the ways of survival it is expected that collective axiological projects will change accordingly to program individuals with the necessary minimal cultural constituting configurations required to survive given those specific survival conditions.

Corbi's research shows that in any society, in any place of the world, when there was a transit between hunter-gatherers towards agricultural societies similar, collective projects were described in their narratives and stories. Corbí (1983) shows that although superficial narratives might be quite different, their deep structures are similar.

The existence of this connection between ways of surviving and collective axiological projects has also been proven in crucial other survival changes in human history, for example, in the transition from agricultural societies to industrial societies.

Interestingly Corbí's research shows how past societies were axiologically geared towards repeating the past because the survival model lasted for long periods, then their axiological configurations lasted for a long time. Therefore, these axiological systems of values were understood as untouchable, given by ancestors, the gods or it was plainly understood how the nature of things was as discovered by science, as it was the case for ideologies.

Although human collectives built these axiological systems to ensure the cohesion and motivation of their collective and thus achieve survival, Corbí (1983) explains that there is no knowledge of how that happened. One reason for this lack of comprehension is that they had to believe that their axiological system communicated through narratives, stories and rituals was the only way of understanding the world and thus surviving. The permanence of their way of survival meant stability in their axiological projects, and thus constancy in their way of interpreting, valuing, acting, and organizing themselves.

Systems of values are successful if they can ensure our species survival. So far, the most extensive system of values of the human species has been that of huntergatherers which account for 98% of the time homo sapiens has been on planet Earth. Hunters and gatherers lived with stable and satisfactory values and ethics until agriculture established itself as a more suitable way to ensure survival (Eliade, 1999). In the same manner, agrarian societies had successful values and ethics for more than 4,000 years.

One of the critical results of Corbí's research has been the distillation of seven protocols (Corbí, 2015a), based on how axiological systems worked in the past. These seven protocols offer a way to build and modify axiological projects whenever it is necessary. Now is the first time in human history that ways of survival cannot possibly be fixed any longer. For the first time in history, we do not survive in a specific way, but we survive by continually changing our ways of survival, and thus this requires a constant change in our systems of values.

This dynamism in ways of surviving has wide-reaching implications. In preindustrial societies, cohesion and motivation were achieved through submission. However, in knowledge societies, with an always increasing interaction between science and technology and an ever-growing specialization, which requires creativity development, submitting to authority is not within the logic of survival of knowledge societies. We do not require submissive individuals, but individuals able to explore and challenge current ways of thinking, feeling and acting and establishing new ways of interpreting and valuing.

Therefore, the ability to create axiological projects has become central. The logic of this interaction between science and technology and the constant creation of new products and services change the way we interpret, value, engage and act in the world. It changes the ways we relate to each other and how we organize ourselves. Because axiological projects constitute the preliminary circuitry by which human beings cohere and motivate themselves towards specific ways of survival, if ways of survival change, then axiological projects will have to be dynamically changed.

This constant change and the need to be creative logically concludes that for the first time in human history, individuals need to willingly embrace a collective axiological project. Thus, narratives and stories need to be appealing to motivate voluntary adhesion.

This requirement of voluntary adhesion is new in human history. There can be no imposition of any kind to submit oneself to the collective axiological project. Thus, the other logical conclusion is that these collective axiological projects will have to be drafted by people with quality and will have to be qualitatively impressive thus being able to foster this voluntary adhesion to the collective project.

2.2.1. Key concepts of axiological epistemology

Corbi's research (1983) on past axiological systems allows him to introduce a **new anthropology and new epistemology,** which enable him to develop an axiological epistemology not based on axiological options or positions but scientific thinking, and therefore opens up the possibility for the design creation and development of axiological projects, and thus a new way of thing about the axiological.

This new anthropology and epistemology are the result of the end of preindustrial societies and the spread of science and technology.

Corbi's (1983) study of past human societies allows him to argue that human beings do not have fixed anthropology or a fixed human nature, but that our nature is a non-nature. Only a few vital elements are established genetically, our physiology, our linguistic capacity, the fact that humans are sexual and symbiotic beings.

Therefore, how humans need to interpret, value, engage, act and organize themselves is programmed by culture.

This ability to change human interaction with the world is specific to humans; all other animals have a binary relation with the world, their way of interpreting, valuing, acting and organizing themselves is fixed genetically. For humans, it is partly genetic but also mainly cultural.

The biological invention of language allows human beings to develop flexible interpretations, valuations, engagements, and actions because language creates a ternary structure of relation. While all other animals are programmed genetically to respond to precisely programmed stimulus in specific ways, thus a binary relation, for humans, the use of language separates the meaning of things to an acoustic format, thus disconnecting the meaning from the thing in itself. This ternary structure enables humans to change the meanings and interpretations of "things".

For example, for a lioness, a buffalo means food; if the lioness is hungry, she might decide to attack the buffalo; otherwise, she might sit by an observe the animal. All these actions are programmed genetically. However, for the human animal, a buffalo might mean, among other, food, milk, skin for dressing, workforce, pet, tourist attraction, scientific study, worship, a photographic safari. What is there might change according to the needs of human animals, and these needs are not genetically fixed but are culturally determined.

Therefore, this ternary structure allows a dual relation to the environment, one depending on human interpretations, valuations and another one free from those interpretations and valuations, open to the unknown, the unfelt, the unthought. Thus, either humans relate to the world connected to their needs, interpretations and valuations, in this case, Corbí (2010, 2013a, 2015a, 2015b, 2016, 2017) names this access "relative dimension". Alternatively, humans have access to reality free from these links, absolute, independent of who they are, or what they need, able to leave aside their characteristics to observe, feel and think in new ways, Corbí (2013a, 2015a, 2015b, 2016, 2017) names this access "absolute dimension".

Thanks to this dual access to reality, Corbí can explain why humans are creative, the appearing of science, music and the arts. Awareness of the absolute dimension opens the door to inquiry, wisdom, beauty and altruistic attitudes. Thus, access to this absolute dimension is what allow us to change, and also to create new axiological projects.

Summarising, humans have the possibility of a dual relation to reality, and also humans have a non-fixed unfinished nature that needs to be finished in such a way so humans can survive. Therefore, differently, from other animal species, human

beings constitute themselves through language. This constitution is done culturally and depends on the way the collective survives. Therefore, it follows that human beings need to create collective projects able to finish the unfinished individual in such a way as to achieve the required cohesion and motivations able to ensure survival.

Like other animals, human's relation with the world is primarily axiological, although in technoscientific societies humans also have some parts of their lives, mainly work, which functions with abstract notions. The axiological constitutions is that which radically defines humans relationship to the world. Therefore, collective axiological projects are not abstract rational constructions that constitute unfinished individuals but need to appeal to the senses, to the feelings, to be effective in programming an axiological relation.

The second key concept of Corbi's theories is the term non-mythical epistemology. The logic of this concept comes from understanding that human beings are unfinished animals that need to constitute themselves to be able to deal with the world, in such a way as to survive. This constitution is achieved by being part of a collective with a collective axiological project. Because these axiological projects are a human creation, then, it follows that the world as humans interpret, understand and live it, is just one model of a limited amount of possibilities only constrained by humans four fixed genetic elements already described.

Another way of explaining this same concept starts by understanding that the dual access of human beings to reality, one relative dimension connected to us, and another absolute dimension not connected to us, logically means that what humans interpret as the world, is just one model, not how the world is. Understanding that our take on things is just one model and not the reality in itself means having, in practical terms, a non-mythical epistemology.

Another way of understanding non-mythical epistemology starts with biological studies. Maturana and Varela (1987) use biological findings to present the insight that every earth species is performing in a world defined by its nervous system. Every living species has only a specific relationship with what is here, depending on their nervous system. Thus, the world as it is lived, for example, by a dog, a whale, a tick, or a human is just a model of what is, not a description of reality. The world of the dog is not how the world is, the world of a tick is not how the world is, and similarly, the world of a human is not how the world is. How humans feel, see, hear, sense, this world is not how the world is. Human senses and human brain do not describe what is here. Our understanding of it cannot measure anything in this world.

Another way of explaining this same concept is by using the linguistic ternary structure of human beings' bond to the world. If meanings of what "things" are attached to an acoustic format, words, then "things" can have different meanings. Thus, meanings are just model interpretations of what is here. Although meanings might seem extra-linguistic, as existing, in fact, they have been shaped by language. Thanks to the objective distance created by language, in the form of meanings of reality transcoded linguistically and the objects to which these linguistic terms refer, then, human words model the world. Thus, words are not labels describing reality but in fact, limiting and parcelling what is there, by creating meaning, creating humans' modelled reality, which in standard terms humans name: "reality".

These two concepts, the definition of human beings as animals constituted by language, and a non-mythical epistemology, together with the findings that human being's axiological constitution is connected to the principal occupation of the collective, provides scholars with the theoretical tools to build collective axiological projects.

The acknowledgement that in technoscientific societies, humans survive thanks to science and technology, new products and new services justifies the need to create these collective axiological projects dynamically.

Moreover, the distilling of the knowledge of past axiological projects provides scholars with a way to design, built and develop axiological projects, following the seven protocols researched by Corbí (2015a).

Thus, summarising, in this thesis, systems of values constitute human beings. Hence, they are not optional, but fundamental, constituting who humans are. Thus, systems of values are minimal cultural constituting configurations which structure and form who we are, and always connected to the way in which critical parts of the collective survive, which conform individuals in their way to interpret, value and engage in the world (Corbí, 1983; 2016), so survival is achieved.

Systems of values are required because human beings are born unfinished, and it is only through a collective axiological configuration depending on a time and place that they become viable. These minimal axiological configurations "tell" individuals how to interpret and value the world and how to act in it. In all other animals, this configuration is genetic, in humans, it is cultural, and thus social.

Hunter and gatherers or agrarian system of values cannot be adequate in collectives which survival depends on an accelerating ability to create knowledge. It would be counterintuitive to affirm so. However, a vast majority of humans are still being configured by expired axiological systems as I will describe.

2.2.2. The central node of axiological epistemology: human quality

Human quality is a central element in the theorisation of axiological epistemology. As explained, human beings can access reality connected to their needs, interpretations, valuations or relate to reality by accessing it in its absolute dimension. This ability, called human quality, is operationally active in humans because we use words. Human quality is a biological invention, geared towards flexibility and change; it is faster than genetics.

Thus, access to the relative dimension is humans everyday understanding of the world, is what humans feel, sense and think in a specific way so humans can survive. On top of this minimal cultural constituting configurations created by the collective axiological project, there is the individual free election within that specific collective axiological project.

Everything that is connected to how humans survive is modelled. Placing this relative dimension in brackets, in such a way as to suspend humans' feelings, thoughts and actions and explore what else is there, allows humans to inquire about a dimension which is free from representations and conceptualisations, the absolute dimension.

The ability to axiologically move, at will, from the relative dimension to the absolute dimension is called human quality (Corbí, 2010, 2013a, 2015a, 2015b, 2017). Thus, human quality is the ability to understand reality in both its dimensions, that which I interpret related to me - relative- and that which I interpret not related to me -absolute, not modelled-. It is called human quality, because it is intrinsic and particular to human beings, due to humans' linguistic capacity. Other animals can communicate with each other, but it is not through a ternary structure but through a system of signals and responses, which means that animals are invariably related to a relative dimension genetically configured and cannot escape from this fixed relation to the world.

Human quality becomes the central condition in collectives that need to create dynamic axiological projects as it is the case in technoscientific societies (Corbí, 2007, 2010). As explained, the current mode of survival is through the creation of science and technology and new products and services that alter the human way of relating to the world regularly. Thus, axiological projects need to be designed in such a way as to foster creativity in collectives, so creativity can flourish and become central. Hence the need to re-imagine management. Thus, axiological projects of technoscientific societies need to hamper anything that sounds and feels like coercion and domination. Although, this might be easier said than done.

The best-known experiments about obedience to authority were conducted at Yale University in the '60s and '70s by professor Stanley Milgram (1974). We might be astonished, as they were, of the results of the experiments, in which common men left aside their humanity to follow up structures of efficiency, control and domination with awful consequences. Milgram justified the results by explaining how following orders behaviour based on the values of loyalty, discipline and self-sacrifice gave superior survival value in previous societies, and thus they were positively valued and still present in our societies. In the final epilogue of the book, he uses the case of the Vietnam war to show in practice, outside a laboratory, an example of the handling of cognitive dissonance, first defined in the 60s' by Festinger et al. (2011). The example is an extreme illustration of what a soldier thought was correct and the massacre he ended up committing in the village of My Lai. Milgram explains how following orders and the justifications of these orders given by subjects submitted to authority were an established way to manage cognitive dissonance issues, as it was also attested in his laboratory experiments.

Thus, it follows that motivated reasoning is easy to occur in authoritarian structures. Subjects might have a harder time to fall within biased cognitive structures if authoritarian values were not in place. If the collective axiological project fostered creativity, by definition, the promotion of curiosity would tend to lower motivated cognitive reasoning, by, creating a cognitive bias impediment. Although I would not be able to say, whether this impediment would impair motivated reasoning, it might exert a secure restraint.

Even though technoscientific societies might not be authoritarian any longer, Milgram (1974) argues that the problem cannot be easily dismissed by saying that if we live in democracies, then events like the Holocaust of Nazi Germany cannot happen again. He explains that authority is engraved in democracies through authoritarian structures of power, and therefore, the issue of dealing with authority continues being unresolved. In a more recent study, Karen Stenner (2005) researched global and European value statistics and affirmed that on average one-third of the population has authoritarian tendencies, thus negatively affecting our politics and democracies.

Thus, axiological epistemology explains that the cultivation of human quality is a requirement for technoscientific societies. It is realised when individuals can move at will from the "Autopilot" defined as those understandings, behaviours, actions that are self-centred, the relative dimension, and move towards a "Manual pilot", an understanding of reality independent of what it means for the individual and the value the subject gives to it, an access to the absolute dimension.

When this ability is exercised, human beings can at least acknowledge some, or the majority, of the cognitive bias and thus able to investigate other possibilities. Therefore, reality, in a non-mythical epistemology, is not how subjects interpret and value it when they are under the influence of the autopilot, accessing the relative dimension of reality. Individuals can understand reality more widely by using their ability to separate themselves from this autopilot. Then, they will be able to "see" "discover" "build" and "create" new possibilities, and therefore they can potentially be creative and able to innovate, by accessing an absolute dimension free from their particular understanding of the world.

If, on the contrary, individuals only cultivate the relative dimension, then they can hardly innovate. To be precise, everything they create will be connected to their particular relative dimension. Hence it will be a routine, a reflection of who they are. Therefore, following axiological epistemology theory, cultivating human quality fosters the critical conditions to be creative, because it provides the required flexibility to investigate the absolute dimension, by silencing personal automatic mechanisms of understanding, feeling and acting.

Human quality is a process, and it is a result. It is the development of three attitudes deeply connected responding to different emphasis of a non-self-epistemic understanding, leaving aside our relative dimension. First, a non-self-centred interest (I) focused on reality to promote a comprehensive, attentive approach independent of particular needs, expectations, desires and fears. Second, a distance (D), a detachment of "the subject advantage" in the situation, a de-involvement while simultaneously maintaining a personal interest to what is there. Finally, a third quality based on silencing (S) particular mental models, patterns of understanding and acting in the world. These three characteristics (IDS) are closely related, and they do not exist unless in conjunction (Corbí, 2001, 2007, 2010). These attitudes are an access to what is here, independent of the individual, an ability to generate freedom in mental patterns.

Cultivation of human quality establishes the conditions by which creativity and innovation can flourish; without it, creativity and innovation rarely occur. Hence, human quality has become essential to our survival because we live in a society of continuous change (Corbí, 1992, 2007, 2010).

There is nothing radical in my previous statements, every time humans have created and innovated have developed new understandings and knowledge of reality. However, it is revolutionary to affirm that in our current economic and cultural conditions, we need to focus on human quality development widely and explicitly, else we will not nourish creativity. It must be an explicit approach for every

organisation to develop its ability to create continuous questions and answers to the ever-changing cultural and economic conditions. Jobs in the Western world will increasingly demand capacities for creativity and innovation, and human quality cultivation is essential for achieving this epistemic goal. Thus, the title of this thesis: re-imagining management by placing axiological issues as the central concern of management.

However, the concept of human quality gestated and developed in Corbi's research (1992, 2001, 2010) exceeds this functional epistemic conception needed for our survival in technoscientific societies; though it is vital for our current economic survival is not limited to it. Human quality can develop a gratuitous aspect beyond its mere necessity for survival conditions.

Human quality is an inherent human possibility; it is a characteristic born from our condition as language capable beings. We used it every day, without realising, for our most common occupations, it can be simultaneously cultivated to develop our creativity and for its gratuitous aspect. Thus, although the human quality is required in organisations for its functionality, it is not limited to this feature. It might include increased levels of gratuity. However, the cultivation of this gratuitous facet will have practical repercussions, in everyday life (Corbí, 1992, 2001, 2010)

Human quality allows individuals to break automatic parameters of their everyday life and provides individuals with the epistemic flexibility to live and relate to others without being subject to fixed and immutable patterns of perceiving, feeling, understanding, and acting in reality. Thus, the development of human quality is a solid foundation for humans' practical survival in a changing society, and therefore, a requirement for technoscientific societies.

Thus, the development of human quality logically needs to be part of the collective axiological project that coheres and motivates the group. It is the first time in human history that human quality is not optional but a requirement due to humans' mode of survival by creating knowledge.

Thus, Axiological Epistemology is the science that studies collective human motivations, investigates how evaluative stimuli are created, how they are managed, and what are their conditions. This science is possible because it starts with new anthropological and epistemological assumptions. For a start, it defines human anthropology as that of an animal constituted by language. A consequence of this concept is the definition of two dimensions of reality, one which human words enclose (Relative Dimension, "RD") and another one which human words cannot define or represent (the Absolute Dimension - "AD"). The non-modelled reality,

which cannot be conceptualised or defined but is sensed, humans can only conceptualise with their words as that which is not-modelled.

It is our condition of animals constituted by language, an ability to inquire about the absolute dimension, what Corbí (2013a, 2015a, 2015 b, 2016, 2017) names human quality, which allows us to explain:

- 1. The reason why humans are such creative animals. Our Relative Dimension can change infinitely in their representations and meanings because humans have access to the absolute dimension. Other animals' representations and meanings are relatively fixed and genetically dependent.
- 2. The reason why humans need to create collective stimulations in the form of Collective Axiological projects (CAPs¹). Unlike other animals, human stimuli are not defined genetically; hence, humans need to create them. Humans create these stimuli symbiotically through language. These stimuli, evaluations and representations allow humans' survival; thus, human beings become viable. Individuals' cannot self-stimulate, is a function performed symbiotically. Therefore, the need to create collective motivations is intrinsic to humans' condition of symbiotic animals constituted by language which fork reality in two: the absolute dimension and the relative dimension.

Some of the critical insights of axiological epistemology are, first of all, establishing a link between systems of values and the way humans survive; thus, systems of values are not optional but central for survival. Secondly, axiological epistemology offers seven protocols distilled from the study of past civilisations, thus providing a way to design, create and develop axiological projects. Thirdly, nowadays, systems of values need to be linked to creativity development, and thus the operational ability of human quality would need to be cultivated, so survival is achieved. Finally, the recognition of the central importance of the development of human quality, which becomes an essential requisite for the survival of technoscientific societies. Which links survival needs with the axiological project and the individual requirement of freely affiliating to a collective axiological project, the ability to design, create and develop collective axiological projects.

¹ A thorough explanation of CAPs, tools, strategies and methods can be found in the cited references of Corbí (2013a, 2015a, 2015 b, 2016, 2017).

2.3. Creativity, responsibility, spirituality, humanities and liberal arts: an axiological analysis from axiological epistemology

At the beginning of this first part, I explained how creativity has become central, and I have also exposed the main demands for a renewed interest in responsible management, spirituality and humanities and liberal arts.

In the second part, I have briefly explained the critical elements of Corbí's axiological epistemology. In the next sections, I will study and reflect on the three axiological approaches, already introduced, using Corbí's theory.

2.3.1. Creativity recommendations for CEO's

One of the critical findings of IBM's report was that only 49% of CEO's say they feel ready to face the creative challenge. However, it might be the case that that 51 % that feel unprepared, do realise they are facing a tsunami.

I use the comparison employed by the current director of the IMF, and at the time finance minister of France, Christine Lagarde, commenting on the answers given to the 2009 financial crisis. Ms Lagarde said, "a tsunami is about to arrive, and some are worried about which swimming suit to wear", she was referring to proposals developed by the United States to the financial problems. Following this metaphor, I guess that 49% who think they can respond to the growing complexity of the economic and social system are those who believe that the "swimsuit" they wear or are about to buy is going to solve the problem. Therefore, the remaining 51% are those who see the "tsunami" approaching, or rather, they are already feeling the Tsunami and believe that their current responses are unsatisfactory.

I want to call into question the underlying assumptions of the study, which provides a stream of recipes to be equipped for the creative world. Some of these assumptions might be commonly shared in other studies.

In the study, there is a mix of recommendations; some are at the business level and others at the axiological level. The study does not make any distinction between the organisational project and the axiological project but warns that creativity and innovation, must permeate the entire organisation, and cannot be thought of as an individual issue. Therefore, the study is implicitly pointing to the need of axiological project with creativity and innovation as the central focus. Thus, the demand has been detected; however, the language of what is being offered by a solution or a recipe is dubious.

One of the underlying assumptions of this report is that only some parts of the organisation have the "burden" of being creative, including the manager function. This study argues that the increasing complexity in which we live is only manageable if our "leaders" are innovative to respond to the challenges we face. The study highlights how leaders need to find answers; the leader (the individual) has to lead and meet the challenges. This study is a reliable sample of what Bauman (2010) describes as the interregnum in which we are immersed. It is an interregnum (Gramsci, 1971) because the understanding of the old-world order is collapsing and there is not yet a new order in place. We only see possibilities; therefore, the past and the new are mixed without automatically offering a glimpse of where we are heading.

Most of the times, the term leadership is used for very different, even contradictory phenomena (Rost, 1991), and this study is an example of this lack of definition. However, it is understood, though not in an explicit manner, that leaders and CEOs are alike.

One of the changes taking shape is the understanding of the phenomenon in terms of leadership, not leaders. Therefore, purpose and motivation become central, and each of the actors in a leadership situation assumes a voluntary and temporary role (Ladkin, 2010), so the leader figure is not stable nor fixed not the CEO. Thus, we cannot think of leaders as ship captains or as CEOs. They are not individuals that due to their hierarchical position in an organisation, direct, organise and manage organisations. Nowadays, leadership is not earned by privileged access to knowledge, capital, or due to a different social status as it was once in the industrial era. Today, leadership is creative.

Therefore, the underlying assumption of the IBM study is that leaders will continue to be leaders, albeit "creative". Individuals located at the helm of an organisation and with coercive power, more commonly known as "command and

control". Inevitably, the term "leader" recreates the mythical image of the hero, who despite life's difficulties and multiple threats "he" can lead the company, project or country to fruition. This vision, I would dare to say, belongs to the "old system", it is an outdated image.

Thus, the IBM study establishes an outdated representation of the leader. The leader is the decision maker and solution maker. This individualistic vision worked in the nineteenth and twentieth century at the height of the industrial system, but since knowledge society's birth, this premise fails. Knowledge becomes the factor of production (Chichilnisky, 1998), and it has radically different characteristics, affecting the entire economic and social organisation (Corbí, 1992, 2007, 2010). Because knowledge is each time more specialised, collectives become the central node of solution creation, and thus, the central node of decision making. Hence the notion of leader and leadership would need to be revised.

The increasing specialisation of knowledge affects organising. Thus, a single individual cannot be self-sufficient to manage or create but needs to form collectives of knowledge creation. As an example, I emphasise the study of 19.9 million scientific papers over a period of 50 years (Wuchty et al., 2007). The authors predict that if the same trend continues, by 2020, all scientific and engineering discoveries will be made by collectives. Similarly, in the business world, any project and organisation require the use of knowledge of all members of the organisation. Thus, we cannot circumscribe the need for creativity uniquely for the leader, but it is necessary at all levels of the organisation in varying degrees. Moreover, the specific characteristics of knowledge as a production factor calls for decentralised structures (Brafman & Beckstrom, 2006) and therefore any centralised leadership, even if named creative, as it is understood, for example, in the IBM study, is contrary to the real creative direction required throughout the organisation.

Therefore, the development of creative leadership is not limited to the leader, as mythically understood; it affects everyone. Thus, the managers and leaders who feel like captains and CEOs who consider themselves as creative leaders are in the wrong paradigm. It would be better to visualise themselves as those who teach others how to surf the Tsunami as a collective, therefore promoting creative leadership across the organisation.

Thus, although IBM's response to the complexity and growing uncertainty is to demand creative leadership, what this means is still limited, constrained, to an old understanding of leadership and therefore, in my view, incapable of creating an orientation towards those skills and capacities needed to live under uncertain and complex situations.

All members of the collective would require to be motivated towards creativity development, and thus some individuals need to think about setting the sufficient conditions for this development to take place by designing, creating and developing collective axiological projects which have as a central requirement the cultivation of human quality.

The second issue with this report is the role of the advice given by IBM. This search for "recipes" displays, once again, the interregnum, a past world understood as a mechanical system. We seek the "pieces", "recipes" that "fit" into this system which has an origin, a final and a function. However, if for example, following Drucker (1993), we think of reality as an organic metaphor, then, nothing is so clear: neither the origin nor the end or function. Everything is in constant definition and redefinition.

Management scholars claim that the "science of management" is considered within the social sciences as an essential discipline. One of the oldest debates is to defend its legitimacy as a science because unlike natural sciences is unable to create proficient models to predict future situations. However, one can find plenty of books promising the "holy grail", books that can be defined instead "self-help", with ephemeral responses.

As Mintzberg (2004) explained, scholars should develop theories, models, that are amazing, offering alternative possibilities that challenge the descriptions managers, entrepreneurs and businessmen have in mind. Thus, helping managers and entrepreneurs to understand the situation in all its complexity, in a new way, able to create their appropriate answers to the conditions they are living.

Fundamentally, Mintzberg is referring to an expansion of reality's understanding, which offers a competitive advantage to those able to acquire this enlarged view. As Kurt Lewin said, "there is nothing more practical than a good theory", and if we think carefully, we realise that all our behaviours and actions are governed by the implicit or explicit theories we have in mind. These theories and mental models, both illuminate and obscure our view of reality and limit the scope of our responses. Therefore, to the extent individuals can put aside the mental models that define each of them particularly in their automatic actions, then organisational members will be able to understand and create more accurate and creative solutions to the situations they face.

Thus, management science is continuously developing models and theories describing what no longer works and pointing towards what seems to work. I say "seems" because these orientations inevitably always end up showing that though they seem necessary are still insufficient and therefore unsatisfactory to generate the

desired response. That is, in the world of social sciences, the scientific model features the "unpredictability" of the human that is the subject and object of the study.

Therefore, management science develops, at least two types of approaches to organising in conditions of continuing uncertainty. First, it develops descriptive theories of "what" is done, descriptions of models and theories, among other, of processes, activities, factors. These are presented as partial understandings of a highly complex reality to facilitate decision-making. These descriptions allow a broader view of reality from the simple modelling of factors. Second, It creates theories on "how" is done, i.e. the importance of the human element, typically by using examples of how others have done it.

Thus, IBM's proposals to CEOs are to embrace ambiguity and to act despite uncertainty, but none of these recipes is any orientation now or any time before.

2.3.2. Creativity recommendations for everyone

Another of the creative studies (Prabhu et al., 2010), described the organisation's culture as the determining factor for innovation. However, what kind of culture is the study recommending? Culture could be defined as all those values, expectations, collective memories, and underlying assumptions manifested in everyday organisation's members' relationships. These would include organisation's operating theories, for example how people organise their current efforts, which have become more or less successful, nevertheless entrenched in everyday operations in such a way that it is believed this is the only way to manage the organisation (Christensen, 2003).

Culture provides implicit conduct guides and facilitates internal group cohesion. Usually, culture does not become explicit until it is threatened by change (Cameron and Quinn, 2006). Organisation's culture is intimately related, among other things, to the theory of business one has, the hypotheses of what the business is and how it works, how objectives and outcomes are defined, who are the customers and what customers value and pay. Although culture is, in most instances, understood as a fixed structure, it is continuously redefining and structuring its meaning (Schein, 2000). However, though culture is a permanent restructuring or continuous creation, this does not mean that an organisation's culture is conducive to innovation, the opposite might be the case.

Prahbu et al. (2010) recommend what culture should be and provides some examples of attitudes and behaviours considered necessary for innovation to occur. Once again, I find a mixture of assumptions underlying both the industrial and the technoscientific model. To focus on some attitudes as the text recommends, I think,

is contrary to the type of approaches organisations should develop. It is crucial to avoid fixing attitudes and behaviours because precisely, this arrangement effectively prevents the development of a culture of creativity and innovation.

If we fix culture's attitudes, as recommended by this study, focusing on a few, we are preventing their constant challenge and possible change. In this setting, individuals are not encouraged to be free to leave these attitudes and use any others when necessary.

One of the decisive insights from axiological epistemology is that in technoscientific societies, the need for creativity development is beyond creating new products and services. It is also the ability to rethink attitudes, behaviours, and therefore, the organisation's culture, when necessary. Prabhu et al. (2010) recommend a type of culture for creativity development, but this is counterproductive because creativity also entails the ability to reconsider perceptions, feelings, and understandings to challenge and change them when necessary.

Axiological epistemology becomes a powerful tool in technoscientific societies because it focuses on axiological issues, and it connects those to creative development. It is the first axiological science that deals with axiological elements free from any normative position and starts from scientific anthropology and epistemology without any metaphysics. Also, axiological epistemology defines human quality and its importance in any collective axiological project of technoscientific societies. It explains how cultivating this ability already operating in human beings, due to the two dimensions created by language, is a requirement to design, build and develop valuable collective axiological projects in technoscientific societies.

Thus, human quality is the ability to access reality in its relative dimension and also in its absolute dimension. Due to this profound feature, individuals in organisations can respond to organisations' "renewing" needs. Because in our current situation of continuous change, organisations require ongoing creation, for example, of new contents, "recipes", "cultures". Therefore, organisations would come to realise that "recipes" and cultures are fixed structures of understandings that need to be abandoned. Hence, it is through human quality development that the appropriate conditions for creation and innovation are cultivated.

2.3.3. Other creativity recommendations

As I explained at the beginning, several organisations are recognised as being at the forefront of innovation, to name a few, Amazon, Google, Apple, Microsoft, Facebook. Google (Girard, 2009; Tan, 2012; Steiber, 2014; Bock, 2015) regarding creative development, maybe has fetched higher attention because it allows their

employees 20% of their time to be freely used. Their Darwinian approach to innovation, based on portfolio theory, suffers from internal contradictions, as Google tries to foster creativity in a competitive environment, entrusting to individuals' goodwill the establishment of relationships, attitudes and behaviours conducive to creative results. Their 20% free time might be individually motivating, but the harnessing of projects is a group effort. It is not clear how this is done.

Thus, the systematisation of innovation and creativity in business means the ability to systematise conditions that favour innovation. Following the logic of what is demanded in technoscientific societies, individuals should ideally be able to develop capabilities to deal with ambiguity and not be trapped by it, to be able to live with uncertainty while simultaneously not getting lost in relativism, to be able to live in the inconsistency of everything while having an integrated approach.

Understanding the complexity of the business environment, many scholars argue about the need for a "strategy without design" and "management without prescriptions". All these approaches defeat the common understanding of management theory as the creation of recipes. Although in principle, these strategies without design and management without prescription are the logical conclusion of living in environments which are highly volatile, uncertain, complex and ambiguous. These approaches argue that competitive advantage is achieved by developing the ability to challenge the current strategy and management practices continually, hence the terms strategy without design and management without prescriptions.

Black and Gregersen (2003) argue that it is futile to attempt the organisation's strategic transformation of processes and objectives, a macro approach, without firstly or simultaneously focusing on individuals' behaviours, a micro-strategy. They propose that strategic changes are achieved by "re-designing" the mental maps guiding individuals' conduct and actions. It is from a revision in how individuals understand the objectives, organisational processes and their contribution to these goals that organisations' strategy can genuinely be reassessed and changed, hence effective strategy development requires a constant and explicit reconfiguration of individuals' mental models.

Axiological epistemology offers two critical contributions to these argumentations and connected to the logic demanded in the current economic conditions:

First, the focus on the development of human quality achieves the "re-design" of the mental maps guiding individuals. The epistemic understanding, consequence of anthropology of animal constituted by language, establishes the foundations for the assimilation of the idea together with the feeling that we always model complexity

inadequately, and nothing we say, feel or think is how reality is. Therefore, we can continually create a possible radical reinterpretation of reality; this choice is always open. Hence, entrepreneurs and managers are to imagine and build new models because they know that their current interpretation is just a model that can be changed when necessary. Managers, leaders and entrepreneurs are free to understand the world, businesses and organisations in a transforming fashion.

This creative and innovative vision can be developed individually by following a practice not anchored in mental automatism of understanding and action. Thus, individuals are capable of having a "non-automatic" view of reality, an ability to use our "manual pilot", to develop, whenever appropriate, our own "recipe without a recipe". In short, this is the cultivation of human quality.

Second, any micro approach to strategy transformation, in this case, by changing individuals' mental models is not enough to change organisations' strategy. The motivation and cohesion of individuals would have to be organised toward creativity development. Thus, motivation and cohesion need to be designed, created and developed, so organisations program themselves axiologically for creative development. Hence the indispensable elements of this axiological transformation are the development of human quality and the design, creation and development of the organisations' axiological project.

Summarising, all the recipes presented in this second part illustrate some of the management approaches to creativity development and innovation. By unveiling their underlying assumptions, I hope I have provided tools, and therefore, I have started creating solid ground from where to begin axiological innovation efforts.

I have emphasised on numerous occasions the radically new situation in which we find ourselves and which I have described as the "interregnum" — an interregnum of axiological transit between the industrial paradigm and technoscientific societies. Hence, I have clarified that the creative leadership in contrast to what was advocated by IBM's study means a collective leadership, decentralised and non-prescriptive, the best way to describe it would be a leadership "non-leadership" focused on fostering the development of human quality and the design, creation and development of an axiological project.

Thus, I have also clarified the management research parameters. I have highlighted their not predictive nature and therefore, the impossibility of creating "recipes for success" for managers. Though many books are offering and selling "recipes" about managing, I have explained how this is not possible in technoscientific societies. I have presented research about creativity and innovation, which highlights

that a crucial aspect is not what is done but how it is done, and how the human factor is critical in any organisational change.

I have investigated how the need to be competitive in a dynamic economy that is in permanent change is approached by some salient scholars in the discipline of strategy. Their focus is centred in intervening at the individual level by conditioning subjects' mental models. I have completed their proposals by emphasising that their attention on the individual is insufficient to achieve the desired changes in creating constant change in the form of innovation in science and technology and new products and services. Moreover, I have argued about the need to focus in developing individuals' human quality as well as on the development of the organisations' axiological project, where this education of the human quality is preserved and encouraged. I argue that it is by considering these aspects that it is possible to develop a strategy without design, a strategy with complete and continuous flexibility because an axiological project needs to be created so collectives can create sustainably.

Thus, axiological epistemology offers us a way to manage any organisation "without recipes" and develop a strategy without design. We can respond to this need if we can mature individuals' human quality, to live with dynamic mental patterns, and be able to interpret and re-interpret reality, in as many ways as it would be appropriate. Thus, individuals would need to know and develop how to abandon automatic interpretations of reality. This human quality, defined as interest, distancing and silencing, is indispensable to assist individuals to establish the conditions favouring creation and innovation. Thus, human quality is fundamental to technoscientific economies of permanent change and uncertainty.

2.3.4. Responsibility

In a previous section of this thesis, I ended explaining the contributions and demands for responsible management with a question that most of the times we hardly consider. Responsibility always assumes an account, and therefore by definition a set of values and norms in place to which one responds, and thus is responsible. However, if as we know, collective narratives do not axiologically structure our collectives any longer, how can these calls towards responsible management be effective? The lack of critical assessment on the underlying systems of values means that responsible management, as is currently proposed, will continue to be a marginal voice in management and management education.

Technoscientific societies generate great promises by increasing production capacity through the development of creativity and innovation. At the same time, they bring significant challenges to humanity, like increasing injustice, environmental exploitation and cultural domination. Our increasing scientific and technical development without an organisational and axiological development could drive our society to its destruction. It would not be because we have lost our moral standing, but because the challenges are each day greater, and our lack of planning for organisational and axiological frameworks are each day more evident. This lack of axiological development connected to the needs of technoscientific societies is affecting our progress negatively, impairing the growth of an inclusive and just society.

It would seem that, for example, inclusion, solidarity, equity, and just society is idealism of something that is not possible. Also, it would seem that these words are similar to what is being proposed by responsible leadership scholars and practitioners. However, axiological epistemology (Corbí, 2013a, 2015a, 2015b, 2016, 2017) justifies the need to focus on the above elements among others, as a requirement for survival, not as an option to the current "business as usual". The need for creativity and innovation require the creation of appropriate axiological frameworks so to sustain the cohesion and collaboration of people from very different specialities, and the above elements are integral elements to achieve the free adhesion of individuals to the collective axiological project.

Thus, for axiological epistemology, responsible leadership means, above all the understanding that the managers and leaders would need to develop valuable organisational and axiological frameworks, else the organisation will not survive. These collective frameworks are not established and need to be created to provide a nurturing corporate environment for the project members. Also, the means and the finalities of the organisational project would have to be explicitly established and adhered by all the members of the organisation to ensure commitment and motivation to the organisational project.

Axiological epistemology explains that only through explicitly formulating, implementing and developing the ends and derived ethics, the organisation has a chance to innovate consistently, because innovation is dependent on the interdependence of knowledge of different individuals, with various specialities. It depends on their collaboration and open disposition to share their knowledge, how this is done will depend on the ethics created distilled from the ends to be pursued. Without this communication and collaboration, innovation is hardly possible. Therefore, the interdependence and required collaboration, in every level, demands

an approach where the domination of one, being named manager or leader, over others is excluded, and the free adhesion of all individuals to the collective project is pursued.

Thus, the responsible leader, together with team members, would have to create a collective axiological project, to which the individual members of the organisation would adhere to, in such a way as if these were absolute values, but knowing that these can be revised when required. The ends of the organisations will also be subject to revision and will vary more often than the values framework, though these will not be permanent nor static as they were in pre-industrial or industrial societies.

These collective projects are not ideologies as the ones described by Barley and Kunda (1992) and Guillen (1994). Past industrial doctrines were being understood to derive from some sacred understanding of the nature of human beings or discovered through science. Whereas the axiological projects of technoscientific societies, to which individuals adhere to, are known to be created, by the collective, and thus can be changed when required.

Thus, collective axiological projects are not fixed, as ideologies, nor designed to block any deviance from the desired objectives. These new types of axiological projects have to motivate collective creativity and freedom, in the understanding and valuation of reality, and the shaping of the individual and collective destiny (Corbí, 1992). Truly these new axiological projects cannot be conceptualised as ideologies.

Moreover, collective axiological projects, which cannot be a set of explicitly established values, work as guidance values that have to be proposed and operationalised to promote unceasing collaboration, free communication, and motivation towards the project end of constant creation and innovation — creating an environment where individuals have the responsibility to decide their destiny and that of the project. Exploitation and domination of any type should be rejected since it defies the purpose of mobilising and fostering the creativity of all members of the organisation.

Purposes are also an essential element to consider when designing collective axiological projects. Although not critically studied here, the options would move between two poles, depending on leader's nuclear interpretation of what is the reality about:

(1) Leaders could view that life is about satisfying needs, exploitation of resources for their benefit, without worrying whether they harm others or destroy nature.

(2) Leaders could view their life as being in symbiosis with other life projects, and with life in general, where everything is oriented towards the service of the collective, in favour of increasing communication, collaboration and mutual profit.

Depending on the option or the "in between" choice that managers choose, this will influence how the project is built, thus modifying the organisation and the axiology of the group.

Axiological epistemology theory argues that if managers are committed to creativity and innovation, then the first option is not feasible. The first option is embedded in the paradigm of control and domination unable to mobilise the forces of a free, open collaboration of human beings because the internal dynamics described play against the purpose of building cooperation and free creation and innovation.

Thus, axiological epistemology clarifies that responsible managers cannot achieve control over the axiological system on which the business project is embedded. Nevertheless, leaders of technoscientific societies, would benefit by focusing on organising mechanisms that foster creative development, knowing that given the complexity of the systems on which the organisation is embedded, their work is an unremitting fine-tuning, and thus an ever ending effort to research and promote a collective axiological project that achieves the organisation ends.

Because collective axiological projects are dynamically changed, this means there will be interminable modifications in the axiological frameworks of individuals. It means that groups and individuals will have to create motivations, images of the future short term and long term, by which individuals can feel completely engaged (Corbí, 2007: 192-194). Indisputably, values cannot be formulated as a list, not be learnt, not imposed, but freely committed to; this is a challenge.

Thus, the design, creation and development of axiological projects is not about creating a list of desirable values to which the members of the organisation have to agree or be aligned to, or a moral compass, as if they were to navigate through the waters of unclear, but already established ethics. Following axiological epistemology theory, responsible leadership would need to focus on the construction of an explicit axiological framework which would allow for creation and innovation.

2.3.5. Responsible Leadership: clarification of its function in technoscientific societies

In summary, currently, in technoscientific societies, thinking and planning about how to organise an organisation axiologically, though it has always been

necessary for any organisation, is a required antecedent previous to any possibility of creation or innovation by the organisation.

The logic is as follows:

If we have to create and innovate incessantly, we need to organise scientific and technical knowledge appropriately. Industrial business ideologies that justified control and division of labour were suitable for an environment of production of goods and services. However, currently, the focus is not in producing products nor services, but in creating knowledge and technology that provide these goods and services. The division of labour, between uneducated individuals and engineers, does not make rational sense. Nowadays, increasing specialisation of knowledge means all individuals can create and develop knowledge in mostly all jobs. Moreover, in technoscientific societies, workers have knowledge and skills that managers do not have; this is due to the increasing specialisation and diversity of knowledge requirements. Therefore, managers are not able to control the jobs of workers anymore and have to trust in their full commitment.

To organise scientific and technical knowledge for creation and innovation means to create methods of communication, information and collaboration among different specialised scientists or technical experts, belonging to similar or different disciplines. These business demands have affected the functions of managers significantly, no longer responsible for organising and controlling the work of, less skilled than themselves, workers and machines. This collective logic is due to the ever more specialisation of individual knowledge and increasing complexity and magnitude of science and technology; thus, science and technological development is not an individual effort but a group creation.

Hence, thoughtful planning of the axiological organisational design suitable for the creation of knowledge is required, thus, to explicitly research how to organise collaborations and collectives to promote communication, sharing and joint investigation, in turn, this will affect the axiology of individuals and groups.

Therefore, the function of managers in technoscientific societies would change towards creating the axiological conditions so specialist knowledge workers can coordinate themselves. Because managers are unable to control the work of these workers, thus managers would need to focus on creating the right axiological conditions so the collective can create and innovate. Managers would have to steadily create and innovate the axiological project that motivates and coheres the group, without using coercive means, by using their persuasion. The organisation is conceived as subjected to uninterrupted transformation and improvement, and flexible enough to adjust when the ends require so.

To nurture innovation capabilities, managers will have to develop different pieces of knowledge. Axiologically, it also means to devise circumstances where there are smooth communications and information flow among the members of the collective. The environment has to be conducive to information sharing and also to foster the freedom of individuals to submit all their knowledge to the group, not withholding or reserving any information. Managers know this collaboration cannot be induced by coercive methods and can only be promoted through the right organisational and axiological conditions.

Axiological epistemology explains that without formulating how this collaboration, free communication and creation is nurtured, i.e. devising the organisational and axiological frameworks of the organisation, is hardly possible that there could be any sustained creation and innovation, taking into account that individuals have different axiological structures.

Also, axiological epistemology offers a way to organise collectives axiologically. Additionally, axiological epistemology provides a new vision of the type of manager and leader that is required because as already explained, creativity and innovation cannot be managed through any control or domination, because these procedures directly hamper creativity and innovation.

Thus, axiological epistemology can explain why managers will cease to hold an authoritarian position. I do not mean that managers are despotic, tyrannical, non-democratic or repressive, but I would like to highlight that the noun "manager" already implies a subject, an operator, governing or controlling other individuals or objects to fulfil an end.

In technoscientific societies, there are two reasons by which managers lose this implied superior position. First, managers will not be in place of superior knowledge, because they cannot understand the creation, innovation of teams by their superior technical expertise or their organisational knowledge. Managers will have limited or nil knowledge regarding the specialities of the members of the collective, so the manager will have to trust on group member's openness and motivation to achieve the organisation's purpose. An adequate term for managers' function might be that of an axiological and technical organiser.

Second, complete interdependence and collaboration of all members of the organisation mean that the political and social approach cannot be based on authority. Therefore, managers will have to understand which the pros and cons of different organisational models are, among others, regarding motivation, communication, trust and exchange. The logic of technoscientific societies means that managers' function will be directed at making sure that optimal axiological conditions are set so

individuals can communicate and share their complete knowledge. Thus, managers will be responsible for constructing together with the members of the organisation the axiological project by which the group rules itself.

Also, axiological epistemology offers a way for managers to create the collective axiological project by following seven protocols for the design, creation and development of collective axiological projects.

Therefore, how to organise for the commitment and motivation of individuals involved in the organisation project has to be given consideration. The responsible organisational leader would have to focus on the formulation and design of the axiology by which the members of the organisation will shape their actions, towards the desired end.

However, the complexity of the issues that managers have to take into account is significant. The complexity of individuals, the complexity of relationships inside the organisation and the complexities of relationships outside the organisation are features which managers have limited chances of influencing.

However, managers would have to develop criteria, a sensibility to incessantly adjust the organisation axiology which the members of the organisation will act on an everyday basis. Managers would require discernment to take on ethical norms and transcend them and create new ones and transcend them yet again. Managers would need to make a conscious decision towards which type of nuclear beliefs they orient the creation of the organisation's project.

Finally, it is essential to recognise that demands placed on managers are notable; thus, only individuals of quality will be apt to perform this role. The qualities required of managers are paramount. Everything needs to be created, among other elements, the axiology and the purposes, while at the same time there are not a set of rules that assure the success of their creation, but everything has to be reasoned and thought about with all their human capabilities, including their sensitivity, their perceptions, and their judgement. Thus, managers will need to discern what its of value for fostering creativity. The work of managers is a never-ending process of sustained refinement to nurture conditions for creation and innovation perpetually.

Managers of technoscientific societies will need to be responsible leaders, as it is defined here, not because it is a refined quality to have, not because it is ethical, nor because it is a luxury that technoscientific societies can afford, but because it is an essential need of any organisation. Either organisations can create and innovate, or they will soon cease to exist.

2.3.6. Spirituality

In the previous section, I studied the contributions of spirituality in management. I argued that the disciplinary approach is based on religious assumptions, although this fact is not acknowledged. Hence, it is unlikely that spirituality could offer an axiological contribution to management theory and practice.

I have analysed the way scholars consider and approach spirituality in management; one of the critical issues found in this analysis is their mythical understanding of spirituality.

Axiological epistemology (Corbí, 1983, 1992, 1996, 2001, 2006, 2007, 2010, 2013a, 2013b, 2015a, 2015b, 2016, 2017) defines mythical epistemology as any interpretation of reality where there is not an explicit or implicit recognition that our meanings are a human construct, explanations are comprehended as a description of how reality is.

Individuals with a mythical epistemology understand the world as words describe it. Most of the time, in human history, spirituality has been interpreted in a mythical way. Thus, myths, symbols and rituals were thought to describe how reality is. Ideologies and scientific theories did not escape from this epistemic understanding either, and all these diverse interpretations of reality gave rise to many intellectual and physical disputes. Every theory was considered to be the "true" description of reality, and therefore, there could only be one correct interpretation.

A key feature of mythical epistemic interpretations is the establishing of descriptions as permanent; also, those interpretations are considered untouchable and immutable. Every mythical epistemic interpretation has a heteronomous authority to which individuals submit. This compliance is justified in the form of submission to God or higher being, in the case of religion, or the nature of things "discovered" by science, in the case of ideologies.

Humans, as it is the case for other animals, do not have interpretations, valuations and modes of action determined genetically, but need to be programmed culturally, through the creation of collective axiological projects that create minimal cultural constituting configurations. However, this collective axiological project can be epistemically mythical or non-mythical.

Axiological epistemology considers the term spirituality as a tendentious term. If we name any phenomenon spiritual, then, implicitly we are assuming an anthropology of body and spirit, therefore including metaphysical elements in our theorising. Thus, axiological epistemology cannot start theorising from a non-scientific hypothesis. For this reason, the use of the word spirituality cannot be an adequate beginning for an enquiry.

For this reason, the anthropological departure in axiological epistemology is scientific: animal constituted by language is the anthropological definition and thus animal with double access to reality, one relative to individuals' need and another free from them.

For axiological epistemology, myths, symbols, religions, spirituality, ideologies and science are all understood with a non-mythical epistemology. Each of these interpretations of reality is recognised as a valuable interpretation, as models of reality. None is better than another, all of them are models of perception, understanding and action that are useful. In this sense, there is no progress in the models; it cannot be argued that some models of interpretation are closer to reality than others. All of them are models, not descriptions of reality.

One of the issues, when myths, symbols, religions, spirituality, ideologies and science are understood in a mythical manner is that the triumph of one of these interpretations excludes the others. So, for example, the success of science as a mythical interpretation of reality has excluded myths, symbols, religions and ideologies and thus our culture has been emptied of meaning because previous axiological descriptions have been displaced and we have gained science, which is an abstract interpretation empty of axiological meaning.

In previous cultures, myths, symbols, religions and ideologies provided an axiological description of how the world needed to be interpreted to provide for the practical level of survival, as well as a way to cultivate the absolute dimension; this is no longer the case in technoscientific societies.

Science and technology development continuously modify our system of life. As we transition from an industrial economy to a technoscientific economy, it becomes clearer we live in an economy and society of perennial transformation. Our understanding of how things are or could be is non-mythical. Hence, we develop continuous and flexible scientific and technological models of reality, creating a pragmatic diversity. Thus, humans slowly but surely change their epistemic understanding, thus comprehending that science does not describe reality as it is, only creates models for humans to survive in this unknowable vastness.

However, at the same time, communities become epistemically free to create axiological projects; an unsettling feeling might surface. Communities and individuals realise humans are autonomous and that we have no guides or infallible axiological models that come from God, in the form of beliefs and religion, or are discovered in the very nature of things, as it was argued in the case of ideologies.

Thus, the establishment of technoscientific societies is provoking an epistemic change from a mythical to a non-mythical understanding of reality. This transition has

impacted individuals and collectives, which can no longer be submitted to heteronomous axiological conceptions of reality. Thus, these interpretations are being abandoned.

Science provides models that are valuable as interpretations of reality. However, these interpretations are not axiological but abstract. Thus, there is an axiological gap. Axiological epistemology theory shows how collectives in the past needed axiological descriptions to program how to interpret reality and motivate the group towards cohesion and motivation to achieve survival. Therefore, this epistemic change means that we need to create our collective axiological projects consciously and explicitly. Thus, it is the first time in human history that we can develop collective axiological projects not fettered to mandates of obedience descended from heaven or defended as the very nature of things, in the case of ideology. We have been let free to create our axiological orientations.

Also, this epistemic change is the seed to understand, in a non-mythical way, what in ancient terms were understood mythically as spirituality. Otherwise, the dimension that this term is cultivating will be lost for technoscientific societies, just because it is presented in a mythical way. Thus, epistemological axiology theorising argues that wisdom traditions of humanity need to be understood in a non-mythical way to be able to inherit the quality expressed in those texts, and thus cultivate that axiological dimension that the word spirituality is referring to. The cultivation of human quality is a human possibility aside from any metaphysical interpretation, subject to beliefs, processes, and fixed paths. This human possibility is due to our double access to reality, one connected to our needs and another one free from them.

Summarising, this non-mythical interpretation of reality holds substantial implications:

- First, by understanding that all descriptions are modelling, we can create new axiological and scientific models that fit our needs quickly and efficiently.
- Second, myths and symbols in their spiritual dimension can be read as a metaphor pointing towards, what axiological epistemology has named as, the absolute dimension.
- Third, our non-mythical interpretation of reality describes reality as ephemeral operational abstract models; this has left us orphans of an axiological understanding of reality. For the first time in humankind's history, our appreciation and valuation of reality are not provided to us by a superior "power", whether this power is God or a higher being or the same science understood in a mythical manner is irrelevant. Our collectives would need to create a vision, an image of the future they want, able to obtain the support, not the obedience, of their fellow humans.

- Fourth, any axiological orientation cannot be legitimised by an appeal to a higher authority because humans construct it. Thus, our epistemology is non-mythical, and therefore any calls to God, a higher power or the nature of things are outdated. Consequently, we depend on the quality of individuals to design, create and develop appropriate axiological orientations.
- Fifth, spirituality can no longer continue to be understood within a mythical epistemology. Thus, a non-mythical interpretation of spirituality demands to rename this symbol, because otherwise, the term spirituality continues to carry with it an anthropological conception of humans, formed by body and spirit that is no longer appropriate for technoscientific societies.
- Sixth, to rename this epistemic dimension, previously called spirituality, as a human quality, allows individuals to understand that there are no permanent truths and that the solutions to our collective problems depend on our axiological and operational creations. Thus, collectives need to create interpretations and assessments of reality that can guide organisations and communities successfully. There are not guaranteed axiological orientations as individuals believed in the past. Therefore, collective's failure or success of the collective axiological projects will exclusively depend on the human quality communities can develop, without appealing to superior legitimising forces.
- Seventh, this non-mythical conception, which axiological epistemology renames as a human quality, establishes the spiritual "phenomenon" with an anthropology that ignores any connection to a supernatural dimension. This anthropology understands humans as symbiotic beings constituted by language. It is, therefore, thoroughly scientific anthropology.

It is through an understanding of the epistemic power of language that we are able to understand that our reality is more than our desires, interests, expectations and fears, and therefore this comprehension gives the ability to research spirituality in a non-mythical way and hence able to inherit wisdom traditions of humanity, from a new epistemic understanding.

• Eighth, axiological epistemology theory, allow us to understand spirituality in a non-mythical manner. In this way, spirituality is free from concepts and beliefs from previous axiological projects. By theorising that human beings are constituted by language and that through language, we have double access to reality, then humans can cultivate and investigate the absolute dimension, what our ancestors called spirituality. Thus, a non-mythical epistemology of spirituality would allow individuals to develop the absolute dimension of reality in our current cultural and economic conditions.

- Ninth, axiological epistemology theory explains the reasons why a mythical epistemology in the discipline of spirituality in organisations is not appropriate to technoscientific societies. A mythical interpretation of spirituality is subject to beliefs, thus to a fixed set of action models and understandings of the world and therefore to established modes of life that are appropriate for pre-industrial societies.
- Tenth, axiological epistemology allows individuals from technoscientific communities to inquire and cultivate what our ancestor called spirituality but without a mythical understanding. Thus, axiological epistemology could effectively contribute to the discipline of spirituality management and religion by offering a scientific way to explore and cultivate this uniquely human dimension.
- Eleventh, in the field of spirituality, management and religion, the vast majority of scholars, approach spirituality as a medicine that can alleviate the dehumanisation and exploitation of human beings in organisations. Some go further and argue that under present conditions of extreme competitiveness, creativity and innovation are crucial. It is thought that only fully integrated individuals can produce these results. However, because their approach is anchored in a mythical epistemology, it is hardly possible that this "spirituality" could be further developed in technoscientific societies. Current scholars' approach to creating "spiritual" solutions to organisational problems lack a thorough analysis of their underlying assumptions, a failure of scientific rigour.
- Twelfth, the development of spirituality in organisations would be of critical importance if it were understood in a non-mythical manner. This non-mythical approach would have clarified explicitly that a focus on human quality development is vital to create purposes and values that function as cohesive elements to develop the objectives defined by members of the organisation. Therefore, spirituality understood in this non-mythical manner is not just an additional factor or a luxury for leading organisations, but it becomes a fundamental element to be developed in any knowledge creation-oriented organisation.
- Thirteenth, I have attempted to analyse the implications of a mythical and non-mythical spirituality to advance towards a non-mythical spirituality. If the theorisations from axiological epistemology are well understood and communicated, then spirituality in organisations might develop and grow, otherwise will continue to be marginal. If the epistemological approach is clarified, then the discipline of spirituality in management might be able to move forward with solid underpinnings, because this solid epistemological foundation will be appropriate to our fellow humans in technoscientific organisations.

- Fourteenth, if this transition towards a non-mythical understanding is not accomplished, then adequate collective axiological projects will not be designed, created and developed. Thus, this epistemic transition is key to organisations in technoscientific societies.
- Finally, although advances to bring the "human spirit" in organisations might be full of goodwill, these proposals are not able to create adequate responses to the current axiological crisis. These approaches might be counterproductive because by focusing on managing individuals' pressures in organisations, and on alleviating the dreadful consequences of the ongoing exploitation of people, societies and environment, they ensure the durability of our outdated value system. These approaches allow individuals to better manage difficulties in which they live, without providing adequate orientation or responses to the deep predation system in which we are embedded. By focusing on mitigation, key assumptions are invisible, and thus the transformation of our collective orientations is impeded.

2.3.7. Humanities and liberal arts

Currently, management studies are being reconsidered, and many foundations and organisations are investing resources in understanding how management education should be.

As I explained in previous sections of this thesis, Colby's research (2011) generated three concerns that the earliest studies of 1959 of the Carnegie and Ford foundation also highlighted:

- a) How are ethics and social responsibility taught?
- b) Is there any relationship between what is taught in universities and management practice?
- c)Are we educating? Alternatively, are we merely granting degrees to access good jobs?

It is claimed that the integration of humanities in management education can create responses to two crucial issues, a perceived lack of responsibility and ethics in managers, and second, a lack of critical attitudes and skills to participate appropriately in the management of organisations.

Somehow it is believed that in a complex and changing world, totally uncertain and volatile, the humanities and the arts can provide for some skills among others those of listening, empathy, and appreciation of context. Moreover, the proposition of integrating humanities and liberal arts in university education is conceived as a way to imbue society with a democratic, civic, and responsible spirit. Humanities are a way

to maintain alive societies' identity, their culture and their traditions, and as a character-building process.

Axiological epistemology theorising understands the problem at a deeper level. For this theoretical approach, the real question is not the symptoms we notice at the surface level, the permanent change, ambiguity, volatility, and increasing complexity, but the lack of parameters of collective interpretation. Therefore, the critical issue is the absence of collective orientations to create answers to the current survival situation in which we find ourselves.

This collective aspect is central, in a remarkable report, the American Academy of Arts and Sciences (2013) warned that the most significant challenge American research faces is the pressing need to respond to the problems of cohesion and cooperation between multiple scientific disciplines. The problem scientific organisations encounter is the tip of the iceberg of an extensive cohesion and cooperation issue manifested in mostly all organisations of technoscientific societies.

However, humanities' potential contribution in the study of the forms of cohesion, interpretation and management is not detected. Also, it is not recognised the relevance of humanities' involvement in the study of creativity and creativity conditions in the knowledge economy. Thus, the proposals of the integration of humanities in management education are focused on the enrichment of individual qualities. The underlying argument is that humanities are as useful today as they were one hundred years ago.

The standard proposed integration of humanities does not detect the radical consequences of the current survival conditions of technoscientific societies, and thus, it does not provide tools to constitute humans collectively and which potentially would help us to manage the super-complexity of technoscientific societies.

Arguments about the integration of humanities in management education often explain that prior exclusion of humanities was an error. However, in my view, the gradual replacement, in management studies, of the humanities by scientific and technical studies was a logical and necessary step in management education in Western societies (Pierson, 1959). Hence, it was not a mistake, as the current recovery approaches are assuming. Humanities, back then, were not deemed useful for economic and social development; thus, these disciplines were replaced by science and technology.

Consequently, current aims to recover the humanities would have to justify on which arguments humanities would need to return to management education. Some arguments are given, as in the case of the reports of the Association of American Colleges and Universities in 2002 and 2007. However, many times it is assumed, often

without question, that humanities knowledge is entirely relevant in the 21st century, as it was one hundred or one thousand years ago.

In some instances, humanities seem to be a panacea to solve the challenges of management education, as some advocates for their re-introduction claim. Because, for them, it is the abandonment of humanities, which has led us to the current axiological crisis. However, arguments posed for the integration of humanities in management education are ambiguous and imprecise. Here below, I introduce and question some of their explanations:

- 1. Nowadays, it is widely accepted that science and technology provide us with useful knowledge. Humanities integration approaches favour to renounce or divert resources from science and technology to acquire humanities knowledge. However, the humanities are not yet recognised as an appropriate knowledge for managers. This approach would be similar to trying to justify the recuperation of myths, or philosophy to understand the world. Although it is possible that our scientific-technical approach would lead us to destruction, humanities knowledge is not valued. Therefore, if education is not discerned as substantial for understanding and acting in the world, as it was the case for humanities knowledge, it will be replaced or relegated by one considered more appropriate. Therefore, it seems complicated to argue to recover knowledge that we once ignored unless its re-introduction is adequately justified.
- 2. Earliest universities taught the humanities exclusively. These were gradually displaced and marginalised; instead, universities favoured the development of science and technology. How can modern humanities encourage the development of science and technology? Can the humanities pursue this approach? These questions are considered anathema to current discussions, because the return of the humanities in education is conceived as a "terrain conquest" of science and technology, a due right, without adequately justifying the relevance of humanities for technoscientific societies. A good approximation would be to re-think how would humanities possibly promote scientific and technological development.
- 3. Science and technology are developing rapidly. Hence, knowledge and its applications are continuously growing, fragmenting and specialising. Continuous specialisation and expansion of knowledge mean humans are covering new research areas. Knowledge is not closed but opens in accelerated growth. Hence, it is foolish to integrate humanities in management education as if it was a fixed and defined discipline. It is unreasonable to think of humanities with 19th-century parameters; paradoxically, this is still the case.

- 4. Science and technology specialisation does not result in individuals' lives fragmentation. Although it may be possible that individuals' education is fragmented, with plenty of silos of information that are not related to each other, nor related to problems, full of abstract conceptions that do not mean anything in individuals' lives. Knowledge fragmentation in the curriculum is a pedagogical problem that requires attention. It is not a problem that will be solved by reading Homer or learning from the humanities.
- 5. Currently, the claim that humanities may provide us with holistic knowledge cannot be sustained, because we do not live in the time of the Greeks, Leonardo Da Vinci or Goethe. A comprehensive education provided by the humanities would be possible if knowledge would be considered fixed, unchanging, stable, somehow legitimated and limited. However, with scientific knowledge continually expanding, or rather with a continued expansion of ignorance, because the frontiers of knowledge continue to grow (Barnett, 2000) not even the humanities can claim a holistic disciplinary understanding. Therefore, humanities argument as a "holistic provider" shows how the humanities problem is ill-posed, current societal living conditions, of continuous scientific and technological change, are not well understood.
- 6. One of the popular discourses is the issue that knowledge is fragmented, and the integration of humanities brings completeness. However, this argument is possible only if humanities are understood as knowledge. For this same reason, humanities integration is always considered disadvantageous to science and technology disciplines. Thus, the inclusion of humanities is presented as the introduction of a specific kind of knowledge in management education.
- 7. Humanities scholars defend that humanities are a necessary discipline for management education. However, science and technology would continue to be the centre, and the humanities would be the context of management education. Although the humanities would remain peripheral, humanities' scholars still defend humanities as the necessary "ingredient" for a competent manager. The argument says that the humanities must be included in management education to integrate technical knowledge. For humanist scholars, the recipe of the ideal manager would be to have technical and scientific expertise plus a humanist ingredient.
- 8. Granted that humanities integration in management education is defended as central to management. As I have argued in the previous paragraph, it is mostly claimed to be a necessary "ingredient" needed to contextualise technological and scientific knowledge. Humanities integration rationale in management education is performed under anthropological and epistemological assumptions that do not allow any other possible conceptualisations. Only by changing these anthropological and

epistemological assumptions, it might be possible to conceive humanities as core to management and management education.

- 9. One of the aspirations in pursuing the integration of the humanities in management education is to develop individuals' ability to appreciate beauty, to be sensitive, and refined. Thus, it is hoped that by developing humanities disciplines, we will educate fuller, more holistic individuals. It is left unclear how more refined individuals with more humanistic knowledge will know how to better respond to management issues.
- 10. Continuing with the above idea, but focusing now on more ethical and moral concerns, it is unclear how more culturally refined, sensitive, and rationally critical individuals would perform more responsible actions. This logic should be examined because many cases in current human history contest this judgement. For example, it remains unclear how to solve the issue of the refined and sensitive Nazi officer, attending to this argument.
- 11. It is argued that humanities can create meaning and thus, build an individual's identity and character. Of course, this meaning creation is without reservation always axiologically positive. However, it is not defined what is positive, because somehow this positive stance is already implied to be present in our humanistic disciplines. Therefore, current humanities knowledge does not contemplate the need to create our values, and thus the need to develop the required values to guide our organisations. This lack of interrogation implies that the critical values to manage organisations are already existent in humanities, and it is out of the question to investigate how to create and communicate those values.
- 12. One of the most common and undisputed arguments to support the integration of the humanities in management education is their meaning making capabilities. However, if we reflect on some humanities courses, it is unclear how by studying Greek philosophy, or Russian literature or witch hunts in England in the sixteenth century can support managers in developing their meaning-making capabilities. How does the study of humanities create meaning? It is uncertain how this meaning-making ability could be defended. Furthermore, humanities, considered as a discipline, disregard their transformative power. This turning of a blind eye to the transformative power of humanities study might be connected to the Higher Education requirements for evaluation and quality assurance.
- 13. In humanities, creativity is narrowly defined, mainly related to artistic works. There are hardly any statements associated with scientific and management needs of creative development in its technical and axiological aspects. Thus, the integration of humanities in management does not consider the relevance of this

creative necessity. Creative needs, if ever argued, are conceived as an ingredient of what it entails to be a good manager, not as a central requirement of technoscientific societies. Furthermore, in any case, it is not specified nor explained how humanities can develop this creativity. Axiological epistemology explains how humanities' anthropological and epistemological assumptions prevent adequate treatment of creativity.

14. Creativity notions in humanities are still anchored in individuals' conception as "geniuses". This understanding continues to portray creation as an individual autonomous endeavour. Current creation, in an increasing unstoppable knowledge fragmentation environment, is only possible in collectives of diverse specialities; thus, this individual notion does not respond to the needs of organisations in technoscientific societies. As a result, current conceptions of creativity, in the discourse of humanities integration in management education, suffer from problematic anthropological and epistemological assumptions.

Thus, arguments proposed for the integration of humanities in management are vague, ambiguous and without a thorough analysis of the causes of the lack of responsibility, and the absence of adequate skills and attitudes deemed necessary for technoscientific societies. Using axiological epistemology theory, I focus on the root of the problem, the deep assumptions underlying humanities integration in management education.

Before proposing humanities integration in management education, it would be necessary to inquire how to teach management in globalised technoscientific societies. Also, the potential of humanities could be considered and thus, question how to re-think the humanities in such a way to constitute the core of what it means to manage the human. However, these questions cannot be adequately answered unless the anthropological and epistemological assumptions underlying humanities' integration in management education are questioned.

This lack of interrogation is the cause of the current ineffectiveness of humanities' integration. One of the underlying assumptions is that the humanities have all necessary elements to provide moral, ethics, responsibility, attitudes and skills for future knowledge workers. It is understood that if students learn these disciplines together with their technical expertise, then the "whole" person is educated, with the skills and attitudes required to be, for example, a good manager or engineer or doctor or lawyer. This proposal is ineffective because it assumes that values existing in the great works of humanity are the values we need today.

Hence, though the contribution of humanities is not explained in this manner, it is assumed that those values are the ones we need to orientate, to unite and motivate

collectives that, for example, the reports of the American Academy of Arts and Sciences (2013) and the European Commission (2009), demand. Furthermore, it is not grasped that these values are only postulates of values, not "values", in its qualitative characteristics.

For axiological epistemology, values to be "values", i.e. to be effective, must reach humans' sensitivity, they cannot be conceptual notions (Corbí, 2013a). The value does not become a "value", logically by just knowing a value, or by reading a beautiful story full of values, or by using our reasoning skills, or by making a list of priorities of values. For example, knowing the values of Homer by reading the Odyssey, how could those values transform future managers of the 21st century? For this value, to be a "value" able to orient action, it needs to reach humans' sensitivity. This difficulty of values reaching humans' sensitivity is an inexistent concern for a majority of humanities integration advocates. Somehow, it is assumed that just by reading a text, then the values of that text are transferred to the reader.

The problem lies in two levels; first, although these changes have been already extensively described and argued (Corbí, 1983; Lyotard, 1984; Barnett, 2000; Delanty, 2001), there is a lack of understanding of the profound and radical changes, specifically on the needs, that our current way of surviving from knowledge creation requires. Corbí (2013a, 2015a, 2015b, 2016, 2017) insists that one fundamental problem technoscientific societies face is that current active collective axiological projects are those of past forms of survival, mainly industrial and pre-industrial. Thus, we continue organising and cohering ourselves not as would be appropriate to technoscientific societies which thrive on creativity development, but as collectives living with axiological projects from extinct forms of survival, this has serious consequences.

Second, because humanities scholars have not focused on the implications of these radical changes in the way we live, they are devising, unknowingly, hostile solutions to adapt ourselves to the current situation. Humanities integration is one of these pretended solutions. By using axiological epistemology theorising, I argue that humanities integration comprises unformulated anthropological and epistemological assumptions, some being ideological. Thus, despite humanities' promoters' good intentions, the result of their approach is limited or even counterproductive to address the crisis "of responsibility or ethics" and to develop management skills for technoscientific societies. I argue that the integration of humanities in management education fails because the problem is not well posed.

2.3.8. The continuation of an ill-posed problem. The underlying assumptions of Humanities integration in management education.

According to proponents of educational innovations in higher education, humanities courses teach students to see the world beyond the narrow parameters of their daily routines. This emphasis on the importance of the humanities is argued as a central purpose in university education, and it is not specific to management studies (Cabot, 2013; Nussbaum, 2012; Association of American Colleges and Universities, 2002, 2007).

Moreover, humanism focuses on developing the whole person, not only their sensitivity but also their rationality and justice sensitivity. Humanists can weigh their lives with their critical reason; thus, humanities are associated with a moral and value-related concept focused on character building. Also, humanities provide students with the required capacities to make sense of the world and understand their situation in it, therefore helping them to contextualise management more responsibly. It is argued, that our current dire economic conditions are the result of humanities' absence in higher education, hence by focusing on the richness of humanities traditions we will be able to provide relevant answers to the economy and management education.

However, this proposed integration of the humanities in management studies has not adequately argued nor detected the cause of our management problems. Our current economic conditions impel us towards constant knowledge creation, science and technology are continuously growing, this produces continuous changes in our lifestyle, our way of organising and our way of relating to each other. Thus, our parameters of interpretation and understanding are frequently in constant dispute, are incredibly fragile, and often contradictory. This super-complexity (Barnett, 2000), is a higher level than simple complexity because it refers to our situation of unintelligibility in a world of interpretations and ways to survive continually changing, and at the same time, the constant demand to continue with this dynamic creative acceleration.

So, we live with an axiological crisis (Corbí, 1983), because unlike other historical periods, we have not created collective orientations that can orient, motivate and cohere us in this accelerated ongoing creation of understandings, ways to organise and act. Universities are thought to be in a unique position to be able to respond to this challenge (Delanty, 2001). The ability to know how to create these collective axiological projects and thus, how to manage humans axiologically becomes critical. For example, how is it possible to unite and motivate human groups in quality projects?

The impact of current technoscientific societies forces us to rethinking individuals' notion as collectively self-constituted. Hence, it has become relevant and

paramount to develop how to create these collective axiological projects. However, the proposal to integrate humanities in management education already presupposes an anthropology that prevents this formulation, and it is, therefore, unable to detect and respond to the root of the problem just posed. Humanities is not concerned in understanding how to constitute a symbiotic individual; it focuses on three outdated assumptions:

First, individuals are recognised as rational beings who by learning the humanities will behave in a pre-determined manner. Unfortunately, no studies are showing that by grasping an idea conceptually, it follows an associated action. Bloom (1994), renown humanities scholar and the creator of the Western canons of literature refuses to acknowledge that reading a specific type of book will create more responsible individuals. Although, it seems likely that by reading we increase our easiness in understanding different situations because it develops our ability to imagine many possibilities for our actions and therefore, we become more likely to be empathetic and reflective (Nussbaum, 1991). Thus, reading Shakespeare or Dante, a paradigm of good literature can enhance an individual's appreciation of responsibility and care. However, it might also be true that in everyday management situations, this acquired appreciation, achieved in our reading moments, is not useful nor relevant in organisations, because "business is business".

Second, humanities integration is justified because implicitly for a vast majority of scholars or supporters of the inclusion of humanities in management education, individuals have a defect, their lack of ethics or responsibility, and this deficiency can be remedied through training. Although, it could also be possible that individuals might already have an ethic, a feeling, and a responsible action, thus not lack anything, somehow, humanities integration endorsers might not deem it appropriate. Either way, advocates for the integration of humanities in management education consider students' ethics and responsibility are not correct.

For the proponents of integrating humanities in management education, humanities already embody all that is needed. Thus, future managers would also embody positive humanities traits, only if they study these humanities. Therefore, following this argument, we are implicitly accepting that the ethics and responsibility we are talking about is that in existence in text, for example, from one thousand, five hundred, one hundred or fifty years ago. It does not seem very logical to argue that the value of humanities is that we can extract the ethics and responsibility for management in technoscientific societies. This argument is assuming a mythical epistemology involving perennial, legitimised and transcultural knowledge, totally

accessible on the cusp works of our civilisation. Furthermore, this argument assumes that by "knowing" this knowledge individuals become responsible.

Third, advocates of the integration of humanities in management education do not question our current system of values. It is accepted as "given", as the nature of things, and therefore humanities' integration attempts to answer our axiological problem by adding an "ingredient" to management education without examining present values in place. Therefore, following this integration logic, management education would be composed of technical and practical knowledge, and a piece of additional humanistic knowledge, thus completing the instruction of the holistic individual.

Simplifying, advocates of the integration of humanities in management education accept current values in place, and therefore implicitly adhere, paradoxically, using axiological epistemology theorising, to the continuing of the unreasonable attitude of predation and exploitation disapproved by the humanities.

This attitude of predation and exploitation, for a different reason, is also considered unreasonable for axiological epistemology theorising, because the continuation of a collective axiological project appropriate for industrial and preindustrial survival forms is a recipe for disaster, hampering creation.

Similarly, it is paradoxical to implicitly maintain the current values of exploitation and predation, while at the same time demanding and providing for ethics. None of these approaches can solve the axiological issues that the reports of the American Academy of Arts and Sciences (2013) and the European Commission (2009) portray, which require answers to the detected lack of cohesion and motivation of collectives.

Accepting the underlying assumption that human beings are needed beings, it does not follow that predation and exploitation of the environment, and people is the most effective way to survive in technoscientific societies. This uncritical assumption of our collective conception of individuals is not questioned and continues to be accepted unconsciously. Thus, the crux of the matter remains. Current humanities integration approaches render impossible to problematize current underlying assumptions. It seems inconceivable to question this attitude of predation and reckless exploitation.

Axiological epistemology theorising takes as a theoretical foundation the link of axiological projects to how humans survive, and therefore the deduction that knowledge creation can only be constructed in collectives in technoscientific societies. Hence, different anthropological and epistemological assumptions from the current integration assumptions espoused by humanities in management education.

Hence, considering our current situation, and being aware of how organisations are compelled to provide new products and services continually, it becomes clear the importance of continuous technical and axiological creation. Our technoscientific societies require the development of axiological knowledge. The American Academy of Arts and Sciences (2013) has already detected that the creation of collective motivation and cohesion are pressing challenges for United States innovation. This axiological knowledge is not only needed in scientific organisations, but it is a requirement for any organisation to survive in technoscientific societies.

Technical and scientific creations are specific to each organisation, whereas axiological creation is a general need that affects all organisations. Given the importance of this issue, scholars would need to be able to investigate how to create cohesive and motivated collectives willing to share knowledge. Few organisations question how to influence axiological creativity in a precise manner, as it is suggested in the report of the American Academy of Arts and Sciences (2013).

Thus, considering current survival conditions, we cannot continue conceiving individuals as autarchic with a more or less humanistic predatory attitude. We need to alter our assumptions and envisage individuals as needing other individuals to be able to develop continuous knowledge. Therefore, current technoscientific axiological needs would require a re-formulation of human beings' education as becoming symbiotic individuals and hence humans would need to focus in developing our knowledge on how to manage human relations, cohesion and collective motivations.

In proposing the integration of humanities in management, education creativity is understood as a personal and individualistic endeavour. However, creativity, the cornerstone of innovation in our technoscientific societies, with the exponential growth of knowledge and specialisation, can only be developed within a group of relations. Humanities integration into management education is argued with the intend to inherit the knowledge of our civilisation cultural works, hence the purpose is to inherit the past, and not the ability to create knowledge. Furthermore, humanities are not purposely conceived to develop our understanding of how cohesion and motivations of the collectives could be designed and built. Therefore, humanities raised with these anthropological conceptions are of little use and outdated for creative societies.

These old anthropological and epistemological assumptions of the humanities are in place because last century anthropological findings have not been taken into account. Our viability as human beings depend on the socialisation we receive. Our genetic endowment is insufficient to ensure our survival (Morris, 1967). That is, to be viable, we need to be stimulated in a certain way and respond as our socialisation

defines, we should behave. Therefore, we are not independent beings; we are constituted by systems of values that make us viable within a culture.

I reason that current attempts of humanities recovery in management education are not a good response to our current axiological needs. We need to base our proposal within the detected foundations of our ongoing survival mode, the continuous development of science and technology.

Our accelerated research in science and technology affects us in two significant ways. First, science and technology are being used to exploit people, societies and the planet, accelerating social imbalances and harming our planet's sustainability. Second, these new sciences and technologies enable the creation of new interpretations and assessments of the world. It is the first time in human history that the continuous creation of knowledge becomes pivotal to our survival. These new interpretations and assessments favour the development of creativity and innovation, which is the backbone of our economic survival. However, despite opening unsuspected possibilities for our human creative development, there are many individuals unable to live under these ever-changing parameters, because they have not been educated for it. Thus, it would be interesting to develop educational proposals to respond to these axiological challenges.

Technoscientific societies are currently immersed in an axiological crisis because individuals, communities and nature's exploitation is allowed, and simultaneously collectives do not have any orientation or ability to manage these new continuously changing interpretations and assessment of science and technology. Collectives are unable to cope with this super-complexity. The answer to this situation would be to learn to constitute symbiotic individuals within collective projects; this means being able to develop an axiological knowledge.

2.3.9. Summarising humanities and liberal arts

Considering the three objectives listed by Colby (2011) and their proposed solution, the integration of humanities in management education is ill-posed. A recovery of the humanities as they were previously conceived is not the solution. I argue that a new conception of humanities able to develop an answer to the axiological crisis we face in technoscientific societies needs to be created. I proceed to argue humanities impossibility to respond to three objectives highlighted.

a) How are ethics and social responsibility taught? Advocates of the integration of humanities in management education assume that humanities can construct a moral and responsible individual. However, it is not explained how humanities can

"make" people more ethical or more "moral". If this were the case, a prolific reader would be very moral and very ethical. Hence, there is an uncritical assumption of humanities impact on individuals' morality.

- b) Is there a relationship between what is taught in universities and management practice? Supporters of the integration of humanities state that what is taught in universities is too specific and hence what is needed are general skills that enable the individual to be autonomous, to have initiative, and critical multicultural thinking. Humanities, for its advocates, provide these general education pieces of knowledge and attitudes than any person going through higher education should possess, and which is considered essential for any good manager. That is to say; one needs to know the geographical, political, social and cultural context in which the organisation operates.
- c) Are we educating? Alternatively, are we merely granting degrees to access good jobs? Proponents of the integration of humanities recognise that "real" education is about knowing the humanities, guaranteeing some basic knowledge of our Western culture and history. These necessary skills, they insist, are essential to be a good manager. That is, again, what is needed, what has value according to this understanding of the humanities, focused on general education rather than the specialisations offered by current management education.

These three objectives have in common the need to provide students with the required context to develop a management practice. That is, an understanding that management practice is situated, and therefore dependent on specific conditions. It cannot escape this analysis that these objectives can be assumed by other management disciplinary approaches such as economics, project management, entrepreneurship and different specific pedagogical approaches focused on sensitising the students about the complexities of the environment. Therefore, humanities would not be strictly necessary to achieve these objectives.

The problem with humanities integration proposal in management education is that the objectives are flawed, and the solutions are not well studied. Humanities' integration is structured as a struggle of "humanities knowledge" to gain relevance within the "core management knowledge". There is a war for "territory", in programs and curricula of management schools. The humanities have lost in advance this fight, although there may be some management schools that provide this kind of humanities knowledge. Humanities integration, as it is currently framed, cannot respond to the challenges we face in management education.

Although, the concerns are explicit in the 1959 and Colby studies and also repeatedly mentioned in many other research studies (Wankel and Stachowicz-

Stanusch, 2011; Muff et al., 2013; Thomas et al., 2014). If these humanities integration proposals were to be implemented, the resulting management education would continue to remain inadequate.

These proposals are insufficient because if studied carefully, they are presented as an option. Hence, humanities integration depends on the voluntariness of management schools, and as a result, are not genuinely necessary. In consequence, if this integration is not implemented, future managers are not perceived as inferior, whereas if a management school did not educate, for example, in marketing or finance, their education would be regarded as defective. **Therefore, because humanities are optional, although very positive, ideal, sensible and reasonable, in truth, humanities do not have enough operational force in management education.** Ultimately, the currently proposed integration of the humanities in management education will be an option because (1) the objectives and (2) the diagnosis are misleading, and (3) the humanities approach is not innovative.

Pierson's (1959), and Gordon and Howell's (1959) recommendations regarding management's scientization and systematisation were needed in organisations and management education. These were not genuinely voluntary choices; unless these recommendations were implemented, organisations would be swept away by others that did. Thus, Pierson, Gordon and Howell diagnose succeeded because they provided answers to the challenges that society and organisations had in the 50s. They were not optional or voluntary but were central and necessary. If Pierson (1959) and Gordon and Howell (1959) research had a huge impact, was because their problem diagnosis was spot on, and their recommendations were precise, focusing on the scientization and systematisation of management education. The outcome of their research and recommendations allowed tremendous economic growth and expansion of management education studies worldwide.

Thus, I have argued that focusing on current humanities integration in management education, taking into account the already defined problems diverts our attention, resources and energy. Furthermore, it makes it impossible to perform a reasonable diagnosis and appropriate response to our current economic and social situation.

The axiological crisis directly affects organisations because it makes them sterile for continuous creation and innovation. By using axiological epistemology theorising, humanities would need to focus on two aspects, first to develop options contrary to the current exploitative character of our value system, and second, the need to create interesting axiological orientations.

Humanities approaches continue to portray the axiological crisis as individuals' choice, depending on their rational goodwill. Also, it assumes that valuable orientations for managers of technoscientific societies are already in existence in the humanities. However, as explained, this approach does not work because of the outdated uncritical foundational assumptions. The remedy is not in the past but in the development of axiological projects that encourage individuals and collectives to collaborate. This scientific knowledge of the axiological is pivotal for technoscientific societies.

Thus, the current humanities approach does not develop collective orientations or actions. Because it is assumed that such directions are already present in the disciplines. According to these approaches is through the study of the humanities that individuals understand what is valuable, and therefore, individuals learn how to orient themselves and their societies. These values and orientations are transhistorical and transcultural. The underlying assumptions of this proposal are that individuals are understood as autonomous and rational and hence, by studying the humanities will become humanists, refined individuals. These humanities approach also shows:

-A mythical epistemology, humanities have already described how is the essential human reality, what is good, how to live, how do we create meaning, and how we have to be responsible. That is, all that knowledge is already given in the humanities, and hence we need to study the richness of over two thousand years of history; otherwise, our societies will be in crisis, as it is our current case.

-A non-detection of the necessity of scientific axiological epistemology, to orient collectives. The current approach assumes that if our individuals are humanist, then we will know how to orient and guide our societies. The humanist individual is the centre of the axiological crisis resolution and the centre of the proposed integration of humanities in management education.

Current integration proposals of the humanities in management education are not able to constitute a viable individual for technoscientific societies, but convert them in hypocritical or schizophrenic, because the value system continues to be exploitative at all levels. Thus, the proposed humanities integration in management education is decaffeinated and ineffective axiologically. Besides, as explained, their underlying anthropological and epistemological assumptions are hostile to the axiological needs of technoscientific societies and cannot solve the issues of motivation and cohesion detected by, for example, the American Academy of Arts and Sciences (2013). Our science and technology, as explained by axiological epistemology theory, would need of symbiotic humans in perfect communication for

the creative production of among others new services, products, science, technology, organisation and motivation.

Humanities and liberal arts cannot be re-imagined without considering the society in which we live. It is impossible that humanities can bring us back to what is holistic and of value because we live in technoscientific communities. Moreover, humanities cannot be moral or ethical referents and, thus, I defend cannot claim to form human character. Nevertheless, if we such assumptions are maintained, then we are harming irreparably any possible transformation of the humanities and the ability to create solutions to the organisations, communities and societies current axiological crisis.

Axiological epistemology highlights the radically new demands of our economy, and also, how to continue with outdated anthropology, and a mythical epistemology is damaging to our collectives. Technoscientific societies need to create and to innovate; therefore, humanities cannot be understood as legitimised content, with fixed understandings of what is valuable, and what is required to orient individuals' lives.

Academics would need to imagine a new type of humanities, which possibly we would have to rename to avoid falling into the trap of maintaining past uncritical assumptions. The challenge, following axiological epistemology, is to think of ourselves as individuals in permanent construction, self-constituted individuals enrolled in motivating projects able to create and innovate continually. This ability to design, build and develop collective axiological projects has to be learnt because our technoscientific societies demand creativity and thus the need to educate the constitution of these symbiotic individuals able to collaborate and cooperate with other knowledge specialists. These collective axiological projects would need to focus on developing a spirit of cooperation, communication, mutual service and above all, a permanent investigative attitude towards creating valuable dynamic futures.

2.4. Conclusions of the contrasting approaches of axiological epistemology and three axiological demands

Axiological epistemology underpinnings are related to the main engine of survival. Collective motivations are not optional axiological paradigms but are linked to the way collectives survive. Therefore, if the way collectives survive is transformed, then new appropriate minimal cultural configurations, that constitute human beings, which can thrive given specific survival conditions, would need to be created (Corbí, 2016).

As explained in the first part of this thesis, the way we survive has changed, we survive thanks to being creative in all its aspects. Thus, our collective axiological projects cannot be inherited from the past because those minimal cultural constituting configurations were not designed for knowledge creation. Thus, now, knowledge creation has become central in all work environments in most of the developed societies, and this has clear implications in the type of collective valuations and interpretations required.

However, one of the main issues is that axiological contributions from responsible leadership, spirituality, humanities and liberal arts are not centred on the creation of knowledge axiological requirements, but are still burdened with non-scientific assumptions, that compel these axiological options to being biased towards past axiological projects either extracted from religion or ideologies.

Technoscientific societies require collective axiological projects connected to creativity development and hence, due to the ambiguity of this goal need to appeal to individuals' free allegiance. Thus, these axiological projects need to be free from any axiological conditioning, for example, distilled from religion or ideologies.

I explained how data surveyed by Gallup (2017) between 2014 and 2016 showed that only 10% of the European workforce is motivated and enthusiastic about

their job. This persuasive data shows the enormous waste of individuals potential, thus affecting negatively our ability to create knowledge and be productive. If systems of values create motivations and engagement for individuals, as I contend, then whatever we have currently in place does not achieve these aims, as data shows.

One of the key findings of this second part is that management theory does not establish a relation between problems of engagement or motivation towards creativity development with systems of values and ethics or with spirituality.

These axiological approaches, those related to systems of values, responsibility, ethics, spirituality, humanities and liberal arts most of the times deal with an underlying assumption of a lack of compliance with among others, specific ideals of human relations, human work, which are distilled from now expired system of values.

I have shed light on the reason why past systems of values are obsolete, not because I hold a different opinion or a different ideal, but because those specific collective axiological projects are tied to ancient forms of survival, and hold unscientific anthropological and epistemological assumptions.

I have also clarified that humanities and liberal arts proposed integration in management education is focused on creating a more cultured and refined individual but does not concern itself with the creation of the personal and group conditions for collectives to thrive creating knowledge.

Also, I have discussed how is quite common to encounter, in management literature, views that frame business as opposed to responsibility, to ethics or values. It might be even the case that business is understood as evil. These positions give rise, in my view, to two different ways of dealing with business, either to domesticate the "business beast", or to create some palliative treatment that makes the injuries that business stabs less painful.

The approaches fall somewhat between proposing (a) suggesting a radical transformation of what is business about, (b) an evolution towards an aimed ideal or (c) focus on aiming at constraining and limiting the unethical actions of the business, which unfortunately most of the times fall short. A similar background assumption can be recognised, enterprises are seen as exploitative of resources, and their behaviour needs to be controlled. All of these axiological approaches without exception are normative, and thus, individuals need to comply and submit to these proposals.

One of the crucial insights of axiological epistemology contributions is that collective axiological projects in technoscientific societies, for first time in human

history, cannot be normative, cannot be imposed but need to be freely adhered to otherwise the required logic of technoscientific societies is not maintained (Corbí, 2013a).

Although many organisations have created their particular system of values with their accompanying ethics. Most of the times, these are imposed, people are coerced in different ways to submit to them. Axiological epistemology clarifies that these approaches are damaging to the businesses that want to thrive in technoscientific societies by creating knowledge. There are two dangerous understated assumptions in this endeavour:

First, every normative axiological system has up to now the kernel of being designed to be an enduring system. However, as I have already presented, systems of values in technoscientific societies are not fixed for extended periods; thus, a normative axiological system would not be possible nor suitable. Therefore, it is more advantageous to propose a scientific structure by which an impermanent axiological system could be created.

The second understated assumption of every normative axiological system is that it needs to be imposed. Thus, many of the issues surrounding its normative status have to do with its legitimation.

A dynamic axiological system can provide, from the outset, a second level legitimation, this means that the process of creation of a dynamic axiological system can be justified scientifically in a democratic society, which is not the case for any of the other previous axiological systems. A first level legitimation is achieved when the collective axiological program is useful in promoting the creation of knowledge.

The indispensable hypothesis to design, create and develop dynamic axiological systems, collective axiological projects, are as follows: the strategic delimitation of the concept value and ethics, and nature- no nature- of human beings, the importance of knowledge economy, and our capacity for creativity due to language.

I argued that although a plurality of axiological projects is possible, not all of them are valid. Therefore, I defended a non-relativistic approach for the theoretical contribution presented here. I explained the importance of language in allowing us to live a relative dimension linked to our needs and expectations, and an absolute one free from them, what we also termed a non-modelled aspect of reality. This absolute dimension is a datum, an untouchable internal dimension, created by language, where we revere that which is unknown, and all of us have access to it when we understand that the world is not made to our measuring. It is from this dimension that we can

discriminate and, discern, whether our axiological constructions are appropriate to our current material conditions.

Collective axiological projects, what we called dynamic axiological systems are created to incite, motivate and underpin symbiotic exchange of human beings fostering knowledge creation. Thus, motivation needs to be designed to sustain collective creation and development. Hence, under these premises, nothing can be fixed nor imposed. Change and doubt would need to be accepted. Therefore, there is not a set of defined values nor grounds for embracing those values because values cannot be imposed on others, claiming a heteronomous source or declaring an assured success. The free allegiance of individuals is what is sought.

Thus, for us, living in democratic societies, axiological systems would need to allow the coexistence of diverse projects of what is a good life, and as I explained particular axiological project could not impose a normative set of values, because these values need to be dynamic.

PART 3

THIRD PART: Re-imagining management. Re-thinking management education using axiological epistemology

3.1. Introduction

The first part of this thesis was oriented to establish the current survival conditions of technoscientific societies and discuss some of the current axiological demands. Accurately, I presented diverse approaches on creativity, responsible leadership, spirituality, humanities and liberal arts. In the second part of this thesis, I explored how axiological epistemology theorising can contribute to expand and clarify the underlying assumptions of these diverse approaches, and how this theorising can orient scholars researching axiological issues towards a scientific study of the axiological without metaphysical assumptions. This third part deals with explaining why and how constitutive motivations should acquire a centre stage in any management education program. I start with a quote by the council on competitiveness (2005) which I think summarises our current challenge: "Over the past 25 years we have optimised our organisations for efficiency and quality, over the next 25 years we must optimise the entire society for innovation". In past sections of this thesis, I have explained how axiological epistemology can contribute to creating collective axiological projects, i.e. collective motivations devised for collectives that thrive as a result of being able to be collectively creative. In this part, I will expand this theme.

3.2. Management education has been innovative

Management education universities have been in continual innovative development, their curricula and programs have been updated continuously since management studies became part of university programs in 1851 at the University of Louisiana and in 1852 at the Institut Supérieur de Commerce de l'Etat in Antwerp (Engwall, 1998).

Management education universities have continued to grow steadily, and nowadays, there is a fiercely competitive global pressure and rankings struggle (Lozano et al., 2018) to achieve competitive advantage through differentiation. Management education universities also have to cope with labour market exigencies, and students' demands to develop an excellent professional career.

Management studies growth is not expected to stop in the short term. Global demand for higher education is growing. Unesco (2015) estimates that globally, there will be 414 million students enrolled by 2030 compared to 99.4 million in 2000. This growth in demand for higher education is in line with overall population growth, and also with a more significant percentage of the population wanting to access higher education.

In these pages I would like to keep away from a general description, I am interested in offering strategic approaches and practical implications, focused on the following specific question: what kind of university education would be reasonable to provide to students who want to learn to create and manage organisations in technoscientific societies?. Moreover, I outline a simple implementation proposal.

Management education, unlike other professions, is not exclusive to higher education. To be engaged in the creation and management of organisations does not require any academic degree (Khurana, 2007). Therefore, management schools have

to prove the legitimacy of their educational offerings continually. Simultaneously, many organisations have developed their corporate universities, competing directly with management schools or developing joint programs. These corporate universities are dedicated to providing specific education to their employees (Allen, 2007; Baets and Linden, 2003; Paton et al., 2005). The advantage of the corporate university is that the education offered arises from a primary and direct need and entails immediate results.

3.3. Constitutive motivations as key focus for management innovation

3.3.1. Diagnosis: what type of management is needed?

I have shown how creativity development is the engine of our economy and society. Therefore, it is logical to think that by 2050, when our current students would have access to significant levels of power and management responsibility, this creative pressure will be soaring. My forecast is centred in this creative focus, which I think is core, and already clear. From this central issue, I can foresee possible consequences, and in this manner, this comprehension can become operative to propose, uniquely, axiological innovations in management education.

Also, because management education can be acquired in many other ways, as I have explained, I should clarify some premises that would make the offering of management education universities hard to avoid. Thus, management education in these universities should ideally:

- a) provide theoretical and practical knowledge that cannot be self-learned (books, online).
- b) provide knowledge that cannot be obtained "on the job" or by other applied means deployed.
- c) understand which educational objectives are serving and be able to assess the achievement of those objectives.
- d) differentiate the necessary academic knowledge to become a management professor from the academic knowledge required to be a manager in organisations (Schank, 2004)

In 1959, Gordon and Howell defined management continually changing. They recognised that management qualities, skills, attitudes and knowledge are specific to a given situation in history. They defended the scientization and systematisation of

management in response to increasing technical and scientific dynamic accelerating developments.

My diagnosis continues in this line, in fact, acceleration of the interaction of science and technology continues escalating; thus, complexity continues to rise, we can no longer speak of complexity but super-complexity (Barnett, 2000).

Thus, creativity is the centre of our world. Humans have always been creative but is only since the '70s in the Western world, that creativity development has become the engine of our economic development.

This super-complexity is thus a meta-complexity. In this super-complexity scientific, technical developments are not the panacea as they were in the 50s. Instead, they become an increasing effort because they require permanent human creativity to situate, interpret, represent, value and apply technical and scientific developments in new ways and new situations. Thus, axiological knowledge acquires unprecedented relevance.

Unlike the 50s, when Gordon and Howell developed their research, currently our frameworks to interpret and value the world fail individuals because the sheer speed of change has made these frameworks outdated, and scholars have not created new one's able handle this super-complexity. Those inherited conceptions which are automatic, evident, effortless, and most of the times unconscious, in the form of collective motivations, are currently interpreting and valuing reality as if continuous creation was not the crucial survival factor in individuals' lives.

It is also evident that the conceptions and interpretations, by which individuals nowadays interpret, value and thus give meaning to our world are continually challenged due to the increased acceleration of new scientific and technical creations that transform our way of life, of organising, of relating, of understanding and interpreting our world.

There is a time gap between the speed at which new scientific and technological knowledge, new products and services are created and the speed at which our axiological conceptions and interpretations change, i.e. our value systems. The mismatch is so profound that our automatic, evident, effortless, and most of the times, unconscious interpretations and valuations are sabotaging our much-needed creative efforts.

Thus, the ability to create new assessments and interpretations of reality in pace with scientific and technological development has become increasingly valuable. The ability to create axiological interpretations and valuations, i.e. dynamic systems of values in coordination with changes in science and technology has become pivotal.

It is the first time in human history that collective motivations need to change so fast and so continuously.

Therefore, the most critical resource in any organisation is the ability to create new interpretations and evaluations of reality, this is, the creation of new meanings that can generate new knowledge, new products and services. Thus, the ability to create axiological knowledge is the cornerstone of organisations in technoscientific societies.

3.3.2. Diagnosis: what type of managers are needed?

Increasingly, individuals are forced to understand themselves and their communities as subjected to dynamic axiological change, contrasting to earlier societies which were understood as static, because their ways to interpret, value and act in the world were inherited. Currently, individuals are subject to continuous changes that require them to live, relate and work in new ways. Consequently, individuals are subject to continuous axiological, organisational, technical and scientific changes.

Earlier societies understood themselves as static, because tradition and knowledge emanated from prior knowledge and experience, and these had immense value. In contrast, currently developed societies value the ability to learn, to create, not knowledge in itself. In this new kind of society, individuals understand themselves as being in permanent construction.

In this situation is particularly significant individuals' axiological creativity development, an area that never, humans needed to develop. In previous modes of survival, the human way of living, of organising and relating to each other was relatively stable over long periods. For example, hunter-gatherers lived for about 200,000 years in the same way, and humankind has lived in the agriculture axiological paradigm for about 10,000 years, however, nowadays individuals require to develop new axiological knowledge, adequate to changing technoscientific societies.

Individuals will need to learn and create knowledge, and those who are unresponsive to these demands will, eventually, be marginalised. Thus, creative ability development becomes the centre of individuals economic development. Therefore, based on this diagnosis, technoscientific societies will need managers able to create adequate conditions for creative development.

Interestingly, as a consequence of the increased specialisation of science and technology, creation will have to be performed in close collaborations, collectives,

groups or specific types of relations. Individual creativity will not be possible unless embedded in webs of creation.

Thus, for the first time in history, managers will need to create the conditions where all organisations' members can be creative. Managers essential worry would become how to foster symbiotic relationships and how to make sure that organisation members are motivated and cohered to adhere to the organisation's axiological project freely.

Managers would need to be able to motivate others to be creative, to know better, to decide better and to act better (Mintzberg, 2009). Therefore, managers will preferably be axiological innovators, creators of collective motivations, guidance and assessments that facilitate the symbiosis and personal and professional development of all organisations' members to encourage creative the creation of knowledge.

Then, it would be required to inquire about the type of education needed to develop such management. I argue that the following should be considered:

1. If survival is achieved as a result of the ability to create knowledge continuously, because technoscientific societies thrive as a consequence of scientific, technical, practical, relational, and organisational creation, then the most valuable knowledge that universities could advance, would be to teach how to develop their students' ability to create knowledge.

Inevitably because creativity can only emerge in symbiosis, due to the increasing knowledge specialisations, hence universities will need to promote, research and teach how to create and develop collective axiological projects, which create the necessary axiological considerations for creativity to thrive in collectives, groups, teams and organisations.

2. Consequently, in the case of management education, I would think that managers key focus would be to develop their creativity and the project members' creativity. Because the most critical task in technoscientific societies would be the ability to frame and solve problems with the participation of individuals with different specialities with incommensurable scientific languages and approaches. To solve any issue, communication among different individuals is crucial; thus, I would imagine that a leading matter is to create sufficient axiological conditions so creativity can thrive. Thus, axiological epistemology would be influential in creating the appropriate axiological conditions by providing theoretical tools to devise axiological projects that can motivate and cohere the group towards the creation of knowledge.

Thus, managers would need to become experts in the management of human motivations. Managers would need to be attentive to the development of organisation

members' creativity, so each organisation's members can develop themselves personally and professionally, so organisations can be creative.

Creativity development is a multifaceted research problem. Is not yet clear which elements make teaching for creativity successful (Nickerson, 1999; Jackson and Sinclair, 2006; Valgeirsdottir & Onarheim, 2017). Nevertheless, their non-reductive approaches, that present creativity as a confluence of factors, for example, Amabile's creative performance model (1983), Csikszentmihalyi's systems model (2014), and Wallace's and Gruber's evolving systems approach (1989).

From these well-known creativity development model, I focus on Amabile's model (1983), she describes three key factors to consider: motivation, creativity skills and domain knowledge. In a later paper, Amabile (2012) includes a fourth element, organisational factors.

Axiological epistemology studies how collective motivations constitute individuals and how these motivations directly impact on individuals' ability to survive. Thus, I could use axiological epistemology theorising to detail Amabile's model further and focus specifically on her motivation considerations.

Amabile (1983) researches motivation and explores the link between motivation and creativity, with a focus on the psychological and social aspects. However, Amabile does not study how collective motivations constitute individuals' motivations because psychology does not have the scientific tools to explore this theme. I have divided the motivation created from collective axiological projects, "constituting motivation" in two parts, one focusing on the personal conditions and another one on the social conditions. Collective axiological constitute collectives, thus by definition forms individuals' motivations and their relations.

3.3.3. Motivations for creative development: personal conditions and social conditions.

The problem of creating motivations that constitute human beings is a new problem in management, because axiological epistemology, is a science that is not yet part of management education.

Constituting motivations oriented towards creativity development, at the personal level, would mean the ability to develop the attitudes of IDS, Interest, Distancing and Silencing and also the attitudes of ICS Inquiry, Communication and Service (Corbí, 2010, 2013a, 2013b). These attitudes enable individuals to understand, interpret and influence reality in a proactive manner, by understanding and limiting the automatic mechanisms of axiological programming

If individuals can restraint axiological interpretations, logically, this means that they can create new understandings. Precisely, this is what is demanded in technoscientific societies, the ability to create new interpretations and valuations when required.

Axiological epistemology defines human quality as the explicit cultivation of these attitudes of Interest, Distancing and Silencing, simultaneously with the attitudes of Inquiry, Communication and Service ("ICS") needed in our current technoscientific societies.

Thus, human quality has not a specific form because these are attitudes, not results. Human quality is the ability to consciously live the two dimensions of reality, the Absolute Dimension, AD and the Relative Dimension, RD.

These two dimensions of reality are intrinsic to humans' biology of speaking animals. While many animals can communicate, none of them has a language. Human language is a ternary structure of communication, a biological tool that lets humans create meanings of what is, in a sound structure, the word. Language, words, and their meanings are not fixed but continuously change according to a community of speakers' needs. That which exists (AD) is bounded by our words (RD), according to our needs.

Human quality development allows individuals to be truly human because it favours the possibility of being creative by fostering the capacity to create new interpretations and new meanings of our reality. Animals are unable to escape their meanings, which are biologically programmed. Humans have a ternary structure of communication (1. humans - 2. words - 3. reality), and this implies that reality can acquire new and surprising meanings that require changes in individuals' actions.

This creativity is not possible in animals because they are subjected to a binary relation (1. they - 2. reality). When humans remain fixated in the meanings of their words and are not able to go beyond them, somehow, they are "over-writing" words to reality, and de facto converting a ternary relationship into a binary relationship thus approaching non-human animal functioning, and thus individuals lose their specific human quality.

Therefore, by developing human quality collectives are favouring creative development. An effective way to further develop human quality is first to understand the anthropological and epistemological theory in which the theoretical conceptualization of human quality is based to sustain these development efforts.

There is nothing ethical or moral in the development of human quality. For those who teach it, is a gift that is offered to the human species, making explicit an already implicit operation. If human quality is explicitly developed, this provides the ability to explore the absolute dimension of reality which does not depend on human words and human boundaries and thus fostering the ability to create knowledge. Moreover, de facto, as bonus collateral, humans might be favouring an "ethical" functioning by leaving aside automatic mechanism centred on the "self".

Also, socially, the requirement of creative development precludes individual and collective submission. Human quality development requires the creation of Collective Axiological Projects ("CAPs") which ensure individuals' orientation towards this personal cultivation. If Collective Axiological Projects are not created, then past collective axiological projects in place will continue constituting the values and interpretations of human beings, with dire consequences for our societies.

Consequently, human quality development cannot emerge unless collective orientation and social recognition materialize. That is, the cultivation of human quality and its effect on human creative capacities is not a spontaneous event and cannot be developed, with enough strength to affect all organisations of society, if CAPs are not created (Corbí, 2013a). Thus, the development of human quality at the individual level is not possible unless there is a Collective Axiological Project in place that creates adequate motivations for human quality development to take place.

The development of these collective motivations constituting individuals for technoscientific societies means clarifying some of the following concepts:

- (1) Knowledge creation = symbiotic creativity ≠ autarchic creativity. Creativity in technoscientific societies is symbiotic creativity; this means that personal expertise, effectively develops when open to ongoing communication with other expertise considering similar or adjacent problems. Collectives become central factors for creativity development, because human scientific and technical development, has propelled the need for specialization, and this fosters requirements for more capacity for communication and coordination of knowledge.
- (2) Knowledge creation = quality communication. Knowledge creation requires of quality communication. It is about building an open and trusting communication enabling collaboration and mutual service, is not enough to share information. Hence communication is the establishment of communion links favouring a mutual and trusting investigative service attitude.
- (3) Knowledge creation = Creating Collective Axiological Projects. For knowledge creation to take place at the rate technoscientific societies require it would be necessary to create and develop collective motivations that foster creative development. Collective Axiological Projects create and develop the necessary communion links by enabling honest communication, something that does not happen automatically but requires the creation of appropriate axiological conditions.

That is, axiological epistemology shows how to design and develop collective axiological projects (CAPs), which affect group motivations and promote the attitudes of full communication, collaboration and mutual service which are vital for creativity development.

- (4) Knowledge creation = Human Quality and profound human Quality. Collective axiological projects, human motivations, cannot be developed in whatever way. CAPs have to be designed in specific ways following axiological construction knowledge parameter, and simultaneously, they require human sensitivity and quality of the CAPs creators and team members.
- (5) Knowledge creation = freedom, equality, solidarity. Axiological projects that govern any creative human project will only have enough axiological finesse if those who design these projects develop their human quality and have symbiotic relationships with others and the environment. These symbiotic relationships presuppose attitudes of freedom, equality and solidarity.

Thus, axiological epistemology provides scientific knowledge for the development of human motivations by describing the design and development of CAP's and the development of human quality as essential elements to develop any creative process sustainably.

3.3.4. Misunderstandings and obstacles on motivations for creative development.

One entrenched belief is that individuals have to self-motivate themselves. In our culture, it is generally conveyed the idea that to succeed individuals must be entrepreneurial, and if they do not succeed is their fault. Motivation is a personal "affair" that is managed through personal discipline, "if we set out to be creative, we will invariably achieve it". This idea is an obstacle to the development of creativity.

Another idea is that education is about instructing a competent individual, an individual with the essential knowledge to be independent and autonomous. Somehow schools educate towards individualism, which means and implies a more or less refined exploitative attitude. Paradoxically, individuals know this attitude is not acceptable for organisations' development, and consequently, there are many appeals to spread emotional intelligence, responsibility and ethics. The idea of the individual is an obstacle to the development of creativity.

Also, it is common to think that the development of creativity is an individual issue, but for axiological epistemology, this is not the case. It is a problem that can

only be solved by creating common axiological approaches and proposals, so to constitute a creative individual.

Also, it is believed that we have a system of values. The moral crisis in which we are embedded is due to our lack of responsibility in applying the values we know. It is argued that we should be taught the development of virtues. Another commonly used approach is to coach individuals to be able to express these values, which are assumed to possess already, it is a matter or voicing them. However, what this means is not clear, nor how this learning is done pedagogically in considered free, democratic and pluralistic societies. Therefore, no one is busy investigating how collective value systems are created. Whoever can create theories able to create collective systems of values, will have a unique organisational competitive advantage.

Approaches of ancient Greece are studied, with the conviction that human beings are rational animals. However, taking into account anthropological current scientific knowledge, human beings could best be defined as animals constituted by language (Baumeister, 2005). Human beings are constituted by language because in order to be viable human beings need to receive specific orientations conforming to a space-time, a culture (Corbí, 2013a, 2015a, 2015b). As a result, currently, in management education, there is outdated anthropology in use. This anthropology of human beings conceived as rational animals perpetuates conceptions and approaches that are not valid in the 21st century and negatively affect creativity development. For example, this conception renders individuals autarchic and therefore, as a consequence, it concludes that creative development and motivation are a personal affair.

In technoscientific societies, it is intended that individuals work in teams and collectives, but unless collective axiological projects are developed, to cohere a collective will be hardly possible. Individuals will work together but will be unable to form a motivated and cohesive collective in full, trustworthy communication and mutual service to foster creative pursuits.

Collective axiological projects are essential to creating the conditions to be creative and thus to survive economically, and they are fundamental to develop human communities in total harmony and symbiosis with the environment and thus ensure the survival of the human species. Also, collective axiological projects are fundamental to stimulate humans for their personal and community development. This stimulation is essential for human fulfilment.

Understanding the need for collective axiological projects development means understanding that creativity is not an individual affair, but it is a collective axiological endeavour. This collective creation can be understood in different ways, as relations of collectives, networks, or organisations, always in communication and an investigative attitude.

Therefore, axiological epistemology theorising allows me to argue the following:

It is useless to appeal to humans' responsibility to create change in our organisations and our production system. Even if we believe in peoples' goodwill, creativity conditions and relationships between people cannot be transformed just with good intentions. It is not enough. We need to create collective axiological projects and educate individuals in our organisations to be able to create collective axiological projects.

If organisations want to create a knowledge culture, then they need to create their axiological configurations. Axiological configurations stimulate humans and orient them in specific directions. De facto, if collectives do not strive to create their axiological projects, then these collectives will operate under the axiological settings that are currently in place. However, the current system of values is not constructed to foster creative development, and thus foster the economic marginalisation and impoverishment of collectives due to their inability to be creative.

As a result, collectives lack of awareness of the current value systems in operation is leading individuals to their ruin, because collectives do not have any chance to promote creative development.

3.3.5. Operational proposals for management education

Conventional human understanding logic advises that nothing can potentially willingly change if there is no real understanding of the need to change. The issue at hand is of utmost importance. If collectives are not able to give an adequate response to the request of creativity development in our organisations, this will mean individuals marginalisation, poverty and the submission of our society.

Thus, if collectives are not able to educate future managers of organisations in developing their creativity, then collectives will be contributing to the failure of our society. We will not be able to create collective motivations that enable our organisations to create knowledge, products and services and our communities to develop a full and creative life unless we teach it. If we are not able to guide our universities towards educating creative development, then we are creating submissive, marginalised and poor societies.

Therefore, I would propose to communicate at all levels the challenge of developing creativity and the consequences that follow from this requirement, the

need to know how to create CAPs and developing human quality — therefore understanding the different elements needed for creative development.

The proposal would have to start becoming useful at the university. Taking into account the specific characteristics of the university as a professional organisation with an established culture, leadership should act in such a way that members of the university would endorse this need for the development of creativity and would form collectives and projects to execute it. Consequently, I would imagine universities' general manager function as a motivational guide, counsellor and facilitator of projects developed by universities' teams.

Universities' members would need to design and develop their CAPs because proposals ideally should be structured bottom-up, with the approval of management, because coherently in our super-complexity environment, we need the collaboration of many university specialists to create the processes, mechanisms, pedagogics, and appropriate curricula for management students.

However, universities' inertia can be extreme, and thus, I propose a dual strategy. On one side, I would argue the need to communicate at all levels our new orientations to foster creativity; on the other, a follow-up strategy is to encourage the creation of new educational programs.

I think the creation of new educational programs is the most practical strategy to encourage innovation in management education. Reform and curricula change might directly affect many people and few managers of business schools have sufficient determination and are creative enough to propel these changes (Thomas et al., 2014). Any existing programs are accredited, even if they are not adequate for creative development. That which is newly introduced has to prove it works; thus, it is full of unknowns.

It might be adequate to follow a strategy of creation of new programs or "versions" of existing programs, as a possible alternative to short circuit organisational anti-innovative functioning. Thus, this strategy should have the approval of universities' governing body, and the universities' leaders and managers. In the next pages I propose three options for a new Bachelor of Science in Business Administration:

First proposal: creating new "versions" within existing programs and regulations

One of the main difficulties in creating innovations is the rigidity of the existing regulatory frameworks. However, these frameworks are flexible enough to propose "versions" of already existing approved programs. Management schools

would be interested in creating "versions" for the following reasons, (a) to test new programs and courses, (b) to develop and promote innovative attitudes in the organisation (c) to present new students "profiles" in the labour market (d) to maintain current accreditation, rankings and programs status quo. These new versions could be done in two ways:

One option is to use electives that would become mandatory and would focus first on learning about the development of creativity, second the study and creation of CAPs, and third, the development of axiological epistemology. Students accomplishment statement would communicate their participation in the specialisation of "creativity and collective motivations."

Another option would be using technology to develop some, many or all lectures in online format and develop extensive group work, following the "flipped classrooms" logic and allowing a reduction of ECTs, consequently facilitating the entry of new contents, the development of creativity, the study and development of CAPs, and third, the development of axiological epistemology.

Second proposal: creating specialisations within existing programs and regulations

Using the group exchange, "cohort exchange", to a foreign university to encourage further international experience. This group exchange would favour the possibility of developing a specific focus for our university students and international students. For example, if the exchange were limited to 20-30 students, this would mean that for a period, the university would have 40-60 students, the addition of our university students and the foreign university students. Thus, the next period we would have none because all students would be attending the courses at the foreign university. This type of cohort exchange "products" generate interest from students and the labour market. Like the previous proposal, there is no need to change the regulatory framework of the degree.

Third proposal: creating new university programs with other institutions

The following proposals, unlike the previous ones, require more dedication because possibly the national and European regulatory framework might be affected.

One option would be the creation of new bachelor's degrees. Universities may decide to develop the entire field of creativity and collective motivations granting a new degree. This strategy allows a more direct view of the market and accreditation agencies and rankings. The university's educational innovation is "presented to the world".

Another option is that educational innovation is done in conjunction with another university interested in innovating conjointly. It is similar to a previous proposal regarding the cohort exchange; in this case, the university grants a new bachelor's degree. This option can be very appealing if structured as a cohort exchange among students from partner universities. Example: one semester in the first university (with students of the first, second and third university), one semester in the second university (with students of the first, second and third university) and one semester in the third university (with students of the first, second and third university). In our university semester, students would focus on the vital contributions of axiological epistemology, the development of creativity, the study and development of CAPs, and the study and development of axiological epistemology.

At present, there are institutions dedicated to the development of creativity with exciting practical innovations that could benefit from academic and practical approaches to the development of motivation and creativity. Hence, a possible collaboration could be beneficial. Examples are "THNK", "KaosPilots" and "Team Academy" among others.

3.4. Conclusions

My recommendations emerge from the diagnosis of the dominant element for economic and social development. Knowledge creation in all organisations' areas is vital to success. Thus, the notion of knowledge moves from transmission of content to a dynamic notion, where what is essential is being able to create new knowledge. Due to the increasing specialization and growth of science and technology, creation in technoscientific societies can be only produced by developing trustworthy relations among symbiotic humans. Consequently, collectives are the backbone of knowledge creation.

Thus, the challenge technoscientific societies face is tremendous; collectives would need to structure their educational response according to the logic by which humans survive. Then, what kind of knowledge is the most valuable? Knowledge which would allow individuals to develop and nurture their ability to create knowledge. Thus, human quality knowledge and the development of Collective Axiological Projects are the tools that will allow individuals to survive in technoscientific societies.

These two elements are crucial to developing individual's area of expertise in any field of knowledge. Thus, the creative collective is the backbone of individuals personal and professional development, and a collective does not become creative spontaneously but must develop the necessary conditions for this creativity to take place, human quality, and the collective axiological project. These conditions are the foundation of any creative collective in any field, scientific, technological, artistic, cultural, relational, and organisational.

If societies do not properly ponder the importance of this axiological approach and resolutely transform management studies, and universities overall, collectives will hopelessly advance towards marginalisation and poverty.

For the changes to be effective, management universities need to have convinced and motivated collectives, leaders and managers, capable of working on this axiological orientation, as well as motivating and persuading each of the members of the organisation so that everyone in their specific area can think, design, learn and organise new axiological approaches to education.

Simultaneously, as I have proposed, universities can develop initiatives that are committed to this metamorphosis while maintaining the status quo to avoid nervousness and organisational stress. This strategic approach allows universities to be able to innovate and learn in this new axiological area without having to deal with substantial changes, allowing slowly but surely an organisational transformation by favouring marginal innovative attempts as I have suggested with the proposals mentioned above.

According to Seneca: "where there is a will there is a way," a "will" that we have no other choice but to undertake, and that somehow is not that difficult, because creative organisations' development is central to the survival of technoscientific societies and planet Earth. Individuals want to survive and prosper, the faster humans are aware of this axiological challenge and commit collective resources and minds towards creating solutions, the sooner these will be achieved.

CONCLUSION

CONCLUSION

I want to re-imagine management and management education, and this thesis is the result of an attempt. I am not alone in this endeavour, the world also wants to re-imagine management, and as a result, management education. This re-imagination is needed desperately, although this re-imagining of management and management education is currently severely hampered by anthropological and epistemological assumptions that keep mainstream academics fettered to understandings of the axiological that frustrate knowledge creation.

Scientifically there is a lack of analytical tools to operate with the axiological; systems of values are mostly conceived within normative, religious and ideological paradigms. I hope this thesis succeeds in opening up the questions and in providing a scientific venue to understand paramount elements of axiological theory that would need to be thought about in organisations and management studies.

Axiological knowledge drives humans much more than they care to think or know. They are oblivious to the minimal cultural constituting configurations that construct the automatic mechanism by which they interpret and value the world. These minimal configurations are vital to coordinate symbiotic and vulnerable humans, to motivate them in such a way as to ensure survival.

These constituting configurations are primal, and individuals do not have concepts for them, because for humans, these configurations are qualitative, sensitive, concrete, evident and accurate. There are so vital that these configurations are transparent and thus invisible because they are constituting how humans are.

Most of the current axiological proposals in management studies are based on ideological conceptions of what is reasonable and necessary, based on systems of values from already extinct forms of survival, either from pre-industrial, as it is the case of religion or industrial times for ideologies.

Also, a vast majority of humans in Western societies view themselves as capable autarchic individuals that need to advance in the world; moreover, humans commonly view themselves as individuals separated from others. Thus, the axiological world in technoscientific societies is still heavily dependent on a concept of the individual inherited from pre-industrial and industrial axiological conceptions. These conceptions are also prevalent in the theoretical assumptions of disciplines such as psychology, sociology, economy and politics, which are frequently employed in management studies.

Many of the critics of the current system of values in the business world declare the wrongness of the prevalent value system in business appealing to a diverse variety of arguments, ranging, among many, from climate change to human dignity, to wellbeing, and global inequality. However, paradoxically, although there is a charming and well-intentioned narrative about, among other axiological solutions, those of responsible management, sustainability, values, and ethics, the world is not being ruled by these axiological possibilities.

None of the reproving appeals to how organisations generally conduct their actions seem to be working; one crucial dimension to focus on is that of voluntariness. Axiological epistemology shows how successful systems of values are linked to the collective's survival conditions. For axiological epistemology, there is nothing discretional in the system of values; they are compelled on human beings by the survival requirements. Thus, systems of values are always pack and parcel of what it means to be human in a specific time and place.

Thus, another essential faulty axiological characteristic from previous collective axiological projects is the conception of systems of values as created on top of what it means to be a citizen in time and place. Also, systems of values are not understood as constituting humans; so, following this logic, people could, in principle, opt-in and opt-out of specific systems of values. This conception of the axiological is problematic because the axiological is conceptualised as an add-on to an already viable individual. Thus, axiological systems are thought and presented as rational choices, and then these systems are not constituting individuals axiologically.

Moreover, as there is no theoretical relationship established between the system of values and survival requirements, then, management scholars are not aware that their attempts to argue and persuade about the need of particular systems of values is futile because their approaches are not connected to survival requirements. Thus, their arguments are not only unfruitful but also negative because their undertakings are certainly deterring the creation of knowledge and are contrary to the establishment and development of technoscientific societies.

The current conventional options of dealing with collective axiological issues at an individual level or not to consider axiological issues as relevant for organisations will continue to bring many problems to human communities, foremost, the inability to survive by creating knowledge sustainably, and most probably the unrelenting marginalisation of communities. Also, continuous axiological pressures, for an unprepared collective might provoke stress and pain in many axiologically unfit individuals.

Also, importantly, axiological epistemology contributes to detecting prevalent considerations, in management theory, of systems of values and collective motivations. These systems of values are framed within mostly religious, philosophical or ideological considerations. Thus, issues of cohesiveness and engagement are not relevant questions in these academic discourses.

However, even though, the issues of motivation, cohesion and engagement are studied, in management mainly within the field of psychology, the approach in this discipline is uniquely focused on the individual. This focus is expected, given psychology's prevalent anthropology. However, the crucial issue is that none of the prevalent anthropological conceptions of psychology, political science, economics, social psychology or sociology which potentially treat the issues of collective motivations and systems of values has the theoretical tools to connect systems of values to issues of motivation, cohesion and engagement directly linked to a form of survival.

Another possible prevalent approach to the deficit of engagement, scant motivation and insufficient cohesion is to focus on human resources, bringing in an array of, among others, coaches in communication, conflict management, and personal development to focus on a collection of "soft" issues. However, these approaches assume that collective cohesion will be automatically created by working on "improving" the individuals.

Claiming that values, systems of values and ethics are not needed in management means that the notion of what values are is merely wrong. It means that systems of values are understood as concepts, and as an alternative to qualitative knowledge. It also means that engagement and motivation are incorrectly understood as being self-generated by individuals. Corbi's work (1983, 2013a) shows how engagement and motivation are qualitative aspects linked to a way of surviving and connected to collective axiological projects.

To hold the view that current axiological proposals in management are limited, and in no small extent faulty, is not a mainstream consideration. However, there is further evidence that the study of systems of values and ethics in business, is not

operational in management because it is not considered crucial in management studies. For example, when business ethics is not taught in business schools or when it is taught as an elective in the management curriculum, the inference is that it is not a central subject. Whereas if marketing or finance were not to be taught in business schools, most people would argue that this particular business education was flawed. Thus, currently, axiological issues are not considered vital.

Axiological epistemology is introducing new assumptions in organisational theory by understanding individuals as constituted by language, thus totally dependent on the collective interpretations and valuations created by the collective axiological project. Thus, axiological epistemology provides analytical tools to go beyond current academic approaches about values, ethics, spirituality and responsibility, and possibly opens up new ways in which to claim a central position in what it means to manage and management education.

Invariably, like other times in human history, the collective axiological project will be connected to the way collectives survive, and thus, in technoscientific societies, valuable interpretations and valuations will be connected to creative development. Now, this creative need is 'resolved' by either focusing on the individual or at the collective level, as a group of individuals. None of these two treatments is appropriate.

This thesis aims to highlight the possibility of a different kind of logic. By definition, in technoscientific societies, a person, the manager, is ill-equipped compared to a collective, the organisation, to solve any issue. Any collective without an axiological project is, by definition set to fail. Because, there is not a system of values in place that coheres and motivates the collective to work together, towards conjointly created valuable objectives, and constituting able individuals to establish trustworthy relationships.

I hope I have clarified well enough the unique and precious approach that axiological epistemology could potentially offer to management theory. Also, I hope I have, at least partially, illuminated the pivotal consequences of linking minimal constituting cultural configurations, in the form of systems of values or collective motivations to the way collectives survive, together with the importance of human quality.

This axiological scientific approach is providing tools to academics and managers to foster a conscious involvement in shaping the future they want for humanity on planet Earth. Humans collective life is their construction, product of their choices and their projects. If humans in technoscientific societies are not consciously devising their collective axiological projects, then, inevitably they are

being carried away by old axiological frameworks that are hostile to the development of creative organisations.

Technoscientific societies have produced radical changes in the way they value and orient their life, the way they relate to each other and how humans organise themselves. However, there are also considerable risks posed by the increasing challenges of an ever more advanced science and technology. Thus, re-imagining management and management education is a pressing need, however, currently, the power of collective axiological projects and the need to develop human quality is unrecognised, and no collective axiological projects are created to manage axiological issues of technoscientific societies. If humans do not respond wisely to their current axiological challenges, nothing assures them that what many currently name progress is not humankind destruction.

LIMITATIONS

LIMITATIONS

There are three fundamental limitations of this thesis. First, I have chosen specific axiological elements in very particular academic outlets. These axiological contributions might not be central to management issues, for example, spirituality. Thus, these axiological contributions do not define or represent all current axiological contributions in management studies.

However, the axiological contributions of responsibility, humanities and liberal arts are effectively gaining track in management and management education. Despite their increasing importance, these axiological issues are still considered marginal as it is proven by their negligible role in everyday management and management education.

I have sufficiently investigated three of the current axiological contributions to understand the logic of their arguments. This work has been difficult because there are at least eight different disciplines involved, psychology, sociology, politics, religion, spirituality, business ethics, humanities and management. Thus, a second limitation is that this thesis is not focusing on depth but on the breadth of approaches to be able to understand the logic governing these approaches. Within all this disciplinary diversity, with their incommensurable disciplinary languages, the map to understand axiological contributions is breathtaking, however when the analytical work is focused on the original assumptions on which these axiological proposals are based, then it becomes easier to understand the various approaches and the conundrum in which academic and ordinary understanding of the axiological is embedded.

I hope I have convincingly argued about the three defective axiological prevailing axiological approaches studied in this thesis. I have argued about the

continued perpetuating logic of their peripheral role in management practice and their assumptions connected to past axiological projects. Thus, I have focused on substantiating their limited possibilities in creating responses to human current axiological challenges. For this work, I have employed axiological epistemology.

The third and final limitation is that axiological epistemology is a relatively new scientific discipline and still lacks necessary empirical research testing its models to design and create persuasive axiological argumentations. Thus, robust empirical work is required in testing the design, creation and development of collective axiological projects.

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