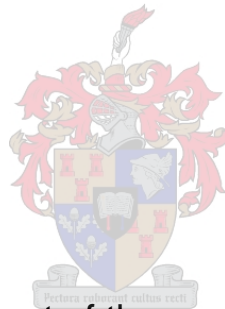# Structure and Sense: a study of organization based on the theories of Weick and Jaques

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Master of Philosophy (Information and Knowledge Management)

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# Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the authorship owner thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date: 24 February 2010

# Opsomming

Karl Weick se Teorie oor Organisatoriese Singewing en Elliot Jaques se Stratifiseerde Sisteemteorie word nie gewoonlik as komplimentêr gesien nie. Die algemeen aanvaarde siening is dat die twee teorieë eintlik pole aan weerskante van 'n teoretiese spektrum is. Die tesis probeer om die twee teorieë met mekaar in gesprek te bring en argumenteer dat organisatoriese singewing in 'n genoegsaam gestruktureerde organisasie verryk word.

Die kern van Stratifiseerde Sisteemteorie is dat alle mense 'n inherente kognitiewe potensiaal vir kompleksiteitshantering het. Soos mense natuurlik verouder kan hulle potensiaal vergroot word en kan hulle 'n volgende vlak van kompleksiteit hanteer. In organisasies beteken dit dat verskillende rolle in organisasies verskillende tydsperiodes vereis waarbinne dit suksesvol bemeester kan of behoort te word. In organisasies kan verskillende vlakke op hierdie manier geïdentifiseer word. Volgens Jaques gebruik 'n genoegsaam gestruktureerde organisasie hierdie vlakke om 'n hierargiese bestuurstruktuur daar te stel waarmee mense aangewend word op die vlakke waar hulle die effektiefste sal wees.

Singewing daarteenoor, is die kognitiewe vermoë om raamwerke op deurlopende vloeie af te dwing. Normaalweg is dit 'n outomatiese proses, maar in organisasies word singewing dikwels bedreig. Singewing en bestuur is twee aktiwiteite wat mekaar deurlopend beïnvloed.

Die soort raam wat op die vloei afgedwing word, die interpretasie van gebeure, die geloofwaardigheid van verduidelikings en die kontekstualisering van omstandighede hang saam met mens se kognitiewe vermoëns. Daar word geargumenteer dat die afwesigheid van diskontinuïteite in kognitiewe vermoëns is en 'n genoegsaam gestruktureerde organisasie singewing sal bevorder. Op hierdie manier word 'n brug geslaan tussen Singewingsteorie en Stratifiseerde Sisteemteorie. In die proses word eienskappe wat sentraal staan vir beide teorieë, soos vereiste varieteit, belang van vergaderings, vertroue en leierskap, uitgelig as gedeelde eienskappe tussen die twee toerieë. Laastens word die grys areas en besware bekyk en waar die grense van komplimentariteit tussen die twee teorieë lê.

# Summary

Karl E. Weick's Theory of Organizational Sensemaking and Elliot Jaques' Stratified Systems Theory are not often deemed to be complimentary. The generally accepted view is that these two positions represent two poles on a spectrum of organization theory. The thesis attempts to bring these two theories in conversation with one another and argues that organizational sensemaking is enriched in a requisitely structured organization.

The essence of stratified systems theory is that all humans have an inherent cognitive potential level of coping with complexity. As people mature they gain the potential to handle the next level complexity jobs. Similarly, jobs have a certain span within which they can or should be successfully mastered. In organizations one can then identify different strata, according to job complexity. A requisitely structured organization uses strata to create a managerial hierarchy. Jaques argues that a hierarchy is not repressive if applied requisitely as people will naturally be drawn to jobs in the strata where they are most effective.

Sensemaking on the other hand, is the cognitive ability to impose frames on ongoing flows and so make the world sensible. Normally it is an automatic process, but in organizations the sense made is often fragile and under threat. Sensemaking and management are two mutually interacting activities that influence each other constantly.

The type of frame imposed on an object, the interpretation given to events, the plausibility of explanations forwarded and the contextualization of circumstances is dependent on one's applied cognitive capabilities. It is argued that if there are no discontinuites in cognitive capabilities and if the organization is requisitely structured then sensemaking is enhanced. This argument serves as the bridge between Sensemaking Theory and Stratified Systems Theory. Other links are in pertinent properties that are common to both theories, for example, requisite variety, trust, meetings and leadership, which are fundamental requirements in both theories. While the theories are complementary, there remain some gray areas and some others of contention and these are considered towards the end.

# Acknowledgments

Thomas Scott noted that a man cannot leave a better legacy to the world than a well-educated family. A number of Thelejane generations have taken this to heart as their attitude has been that education surpasses most things. I am grateful to them and I have taken the opportunity to further my studies mindful that I am following in their footsteps and continuing a strong family legacy. Ke ea leboha Bataung ba Hlalele! My wife, Lerato, who also comes from a family that cherishes education, has been an encouraging, positive, patient, understanding partner, even as she has embarked on her own further studies. I hope that I can be as considerate and helpful to her as she has been to me. Thank you for your support. I have found my good thing. To my daughters, Tumelo and Matšepo, seeing the world through your eyes has added a new and better perspective to life. One day in the future I hope that you too will resolve to continue this education legacy. Bishop Tutu was correct, while one cannot choose one's family, they are nevertheless God's gift to us. As often as I can remember I therefore say thank you to my God for his grace, his unmerited favour not only in placing me where I am but in numerous other ways.

I would also like to extend a big thank you to the MIKM staff at Stellenbosch University. Mr Christiaan Maasdorp has been a treasure trove of good ideas and encouragement as he has gently pushed me to complete this thesis. I am also particularly grateful to Professor Johan Kinghorn who has given me great opportunities to grow as a junior lecturer and has stimulated my thinking in countless ways. He has definitely been my thought leader.

My final thanks go to Sappi, my employers and sponsors. I have had a number of mentors within the organization but special thanks must go to Dr John Job and Mr Andrea Rossi who have had the biggest influence on my career.

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# 1

# Introduction

## 1.1 Organizational theory delimitation

According to Pugh[1], we live in an organizational world. Some of the organizations that span our lives include our schools, universities, religious congregations and political parties. Banks, chain stores, oil companies and various levels of government (local, regional, national and international) all provide services that to some extent are defining social institutions of modern, economically developed, democratic, capitalistic society. In these economically developed countries livelihoods depend on what Jaques[2] refers to as "managerial organizations"[3] with over 75% of all people working for a living being employed in these managerial hierarchies[4]. Williamson[5] says that there is virtual unanimity amongst economists and non-economists that these managerial organizations, or as he prefers to call them, modern corporations[6], are important and complex economic institutions which, often through their sheer size and influence, have insinuated themselves into our everyday lives. Handy[7] concurs referring to business organizations as the linchpins of society.

Given the importance of managerial organizations, the study of organizational theory is a central issue of the modern world. However organizational theory is a broad subject covering subjects such as individual, group, interpersonal and inter-group behaviour, structure and processes or functioning of the organization. This vast span of theory lends itself to divergent views and camps, with protagonists from the different sides vigorously debating and advocating for their particular camps' view as

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[1] Pugh, 2007

[2] The spelling of Jaques does not have a c.

[3] Jaques, 1996. Jaques specifically refers to the organization as managerial organizations to emphasize the key role of management in the entity. There are specific management structures and behaviours that he emphasizes, which will be discussed later in the thesis.

[4] Jaques, 1996, does not reference the 75% figure used. It is unclear whether it is an estimation on his part or whether it is sourced elsewhere.

[5] Williamson, 1985

[6] It is interesting to note the use of different terminology to describe similar entities. The possible reasons for the differences are not pursued further in this thesis. The terminology used will generally follow that of both Jaques and Weick as they are the prime authors being studied.

[7] Handy, 1995

to where the emphasis of study should be directed. For example, in addressing the question of the amount of organization and behavioural control required for optimal functioning, Pugh[8] notes two broad distinct camps[9]. In the first camp are those referred to as organizers, who place greater emphasis in clear job definitions, routines, duties and lines of authority with effectiveness principally influenced by management of structure and culture of the organization. In the other camp are the behaviouralists whose greater emphasis is placed on behaviour and abilities to adapt to the ever changing environment and argue that increased control stifles creativity and innovations and hence minimizes organizational capability to effectively adjust to the ongoing environmental change. Greater individual autonomy, trust and minimal control are the necessities required for coping with this modern world which is in constant flux. This thesis looks to establish a link between the organizers and behaviouralists schools of thought by comparing Jaques Stratified Systems Theories and Weick's Sensemaking in Organizations thesis.

In an attempt to link the organizer and behavioural schools numerous thought leaders could have been selected. Taylor[10], Smith[11] and Fayol[12] are some of the classical scholars that advocated theories of a single best way to structure organizations. Each of these scholars added significantly to management theory but since they are long dead, they are not able to defend their theories, which even today are generally heralded or vilified. For example, Taylor introduced concepts which have been foundations for management theory such as rest breaks to allow workers to recover, increasing workers productivity by discovering best practices for a job and then

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[8] Pugh, 2007

[9] Pugh, 2007

[10] Taylor, 1911and Morgan, 1997. Frederick Winslow Taylor is considered the pre-eminent proponent of scientific management, and that movement is often referred to as Taylorism. Morgan writes that Taylor "is often seen as the villain who created scientific management". Scientific management advocated that an organization can be rationalized through precise instructions and maximizing the time and motion of employees. Taylor's contribution was to introduce the concepts of goal setting and rewards as motivators to remove human variability in work. Taylor's approach to his studies was systematic and encompassed factors such as human characteristics, the physical and social environments in which people operated, individual capability and monetary matters.

[11] Smith and Sutherland, 1998. Adam Smith, in his 1776, An Inquiry into the Nature and Causes of Wealth of Nations, argued for amongst other things, an organizational structure based on the division of labour, limited by the extent of the market.

[12] Henri Fayol is best known for defining the principal functions of management as planning, organizing, commanding, coordinating and controlling. Fayol also developed principles of administration which included division of work, the right to give orders, discipline, a scalar line of authority throughout the organization, order in the work place where everything had its right place, etc. His perspective differed from Taylor's in that he viewed the organization from the top down. See Gibson et. al., 2003

teaching the workers that best practice and division of work between workers and administrators, with one of the administrators tasks being to select the right workers for a job, that is matching workers and jobs[13]. Peter Drucker saw Taylorism as the forerunner of knowledge management as he interpreted scientific management's aim as the production of knowledge to improve processes[14]. Despite all of these positive influences, Taylorism has been severely criticized[15]. The first major criticism is that individuals differ from one other in respect of their personalities, mental capabilities and physically abilities and so while a best practice may lead to harder work, it could lead to inefficiencies as workers become disenchanted with their environment. For example, some such as Morgan[16], have interpreted Taylor's theses as metaphorically categorizing workers as machines. While Taylor advocated for machination, he never referred to workers as machines. He did however, refer to workers as easily replaceable factors of production thus treating them as mindless and emotionless. A second criticism is that Taylorism overemphasizes rules, regulations, work procedures, etc and is thus inflexible to changing scenarios. Yet another major criticism of Taylorism has been that management (administrators) and workers economic interests are rarely aligned. It can broadly be concluded that Taylor's notion of rewards as incentives resonate with administrators but are criticized by those on the side of the workers[17].

Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations*[18] and *The Theory of Moral Sentiments*[19] have had a profound influence on Western institutions and economic thought and are widely recognized as having given birth to eighteenth century capitalism. The key notions advocated by Smith, and accepted by the emerging capitalists, were limiting governmental intervention in economic progress and division of labour. Smith opined that self-interest was the principal motivator for economic agents in a capitalist society. This self-interest though, had unintended positive consequences in that the capitalists tended to manufacture those things in greatest demand and thus promoted the general welfare of society as their

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[13] Taylor, 1911

[14] Drucker, 1993

[15] In Morgan, 1997 Taylor is referred to as "one of the most maligned and criticized of all organization theorists, [and] also proved to be the most influential".

[16] Morgan, 1997

[17] Morgan, 1997 notes that Taylor had gained a reputation as the "enemy of the working man".

[18] Smith & Sutherland, 1998

[19] Smith & Haakonssen, 2002

material needs were met. Self-interest is a natural phenomenon according to Smith, and thus any intervention by government disrupts this natural order. Self-interest is tempered by people's desire to be approved by others and to be worthy of that approval. However to attract other people's sympathy[20], one's feelings need to correspond with what is considered reasonable in such a situation. This sense of sympathy that we feel is an important basis for legitimizing hierarchies. According to Smith, people have a propensity to respect those with wealth and success and should feelings of envy arise, these are considerably moderated.

In determining which author to select to represent the organizer camp, a relatively modern author, who would have dealt with some of the criticisms of the classical structural advocates, while covering large aspects of the classical authors' writings was sought. A large proportion of Taylor's, Smith's and other classical authors basic tenets are reflected in Elliott Jaques writings. For example, Jaques in the classical tradition, also advocates a single best way to manage and structure an entity. He has however deviated substantially in some regards. For example he has further defined and modified Taylor's notion of rewards and compensation by infusing it with what he calls "felt-fair" [21], which parallels Smith's advocacy of sympathy as will be seen in the next chapter. He has also redefined the division of labour according to an individual's cognitive potential and displayed ability.

In the periods after World War I and World War II, organizational studies included human and psychology factors in organizational studies. Aspects such as teams, motivation and individual roles within organizations came to the fore. Scholars such as Fayol[22], Herzberg[23] and Maslow[24] were at the forefront of these studies. The wars

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[20] Smith saw sympathy as the ability of one to account for and orient oneself in line with others assumed sense of generosity, kindness, compassion, mutual friendship, hatred, anger, happiness, sadness, joy or grief. As Smith put it, it was a "fellow-feeling with any passion whatever". Smith and Haakonssen, 2002.

[21] In his studies, Jaques was prone to asking employees across the organizational spectrum what they felt was a fair pay for various roles, hence the term "felt-fair pay".

[22] Henri Fayol was a French management theorist who argued that any organization can be divided into six functions, namely technical, commercial, financial, security, accounting and administration. With regards administration he argued there were five elements – planning, organizing, commanding, coordinating and controlling. These five elements were later reduced to four by later management theorists, usually omitting commanding. See Gibson et al, 2003.

[23] Frederick Herzberg introduced the Two Factor Theory, which is also known as the Motivation-Hygiene Theory. The theory postulated that people are influenced by motivation factors (which include recognition, promotion, growth, the work itself, achievement, etc) and hygiene factors (salary, status, working conditions, personal life, etc). Based on these he made conclusions such as inadequate hygiene factors lead to dissatisfaction but adequate motivation factors do not lead to

themselves, particularly World War II, where there was a necessity for studying large scale logistics, gave rise to interest in fields such as systems theory and complexity theory. Simon[25] and March[26] were some of the more influential theorists for these schools of thought and theories such as Bounded Rationality[27], Contingency Theory[28] and Organizational Ecology[29] were borne. With the advent of the IT revolution, labour requirements were reduced, people were made redundant, qualitative work became more pronounced and cultural explanations of organizations became more important. A leading scholar in this era was Weick who wrote *The Social Psychology of Organizing* in 1979 and *Sensemaking in Organizations* in 1995.

Weick's work builds upon the work of many expert authors. This is evident in an article[30] where he criticized Nonaka and Takeuchi's book, *The Knowledge Creating Company*[31] for superficially addressing matters such as politics and tradition in favour of the individual. In this article Weick wrote:

> Finally, this framework has drawn together a number of ideas that are currently fashionable within organisational learning: namely the view of organisations as complex adaptive systems[32]; the management of requisite variety within organizing processes; the development of practical wisdom through encouraging narrative rationality within communities-of-practice; and a structurationist concern for the factors

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satisfaction; hygiene factors operate independently of motivation factors, and so forth. See Gibson et al, 2003

[24] Abraham Maslow is known for his hierarchy of needs where basic needs (physiological needs) prop up the pyrimad and the self-actualization needs are at the apex. Gibson et al, 2003

[25] Herbert Simon was a Nobel laureate for his bounded rationality theories. Uncertainty about the future, costs in attaining information in the present, cognitive limitations and time to make a decision limit agents from making fully rational decisions. This rationally bounded decision-making process then leads to satisficing (rather than maximization) where the agent is happy.

[26] James March was also an influential decision-making theoretist, whose book, A Primer to Decision Making is an excellent introductory exposition outling how decisions are made. In the book various concepts such as ambiguity, limited rationality, meaning and interpretation are explained.

[27] See note 16 above.

[28] Contingency Theory says that a best way to lead, organize or make decisions does not exist. The optimal style is a function of the situation met and the constraints therein.

[29] Organizational Ecology is the use of biology, economics, sociological sciences in combination with statistics to understand the conditions that give rise to organizations, their growth and death.

[30] Preprint of an article published in The Journal of Knowledge and Process Management, 2001.

[31] Nonaka and Takeuchi, 1995

[32] Complex adaptive systems are systems where individual agents act according to their own internal strategies or mental models in an interconnected manner such that one agent's actions change the context for another. The outcomes of a complex adaptive system are non-linear and often novel. Organizations, families, stock markets, etc are examples of complex adaptive systems.

that may either enable or constrain practices within organisations. It has also been argued that this approach is congruent with aspects of Stacey's views of organising in terms of legitimate and shadow networks[33], Searle's concept of background[34], Aristotle's idea of practical wisdom[35] and Heidegger's notions of thrownness and authentic being[36].

While both Jaques and Weick, to varying degrees, draw on previous scholars work, they do not cover all aspects of these scholars. Since Jaques' Stratified Systems Theory[37] tends towards the organizers camp, while Weick's sensemaking views tend to emphasize behaviouralists views these works have been chosen to represent these camps. Despite the bias, it is important to note that within both these theories elements of both organizers and behaviouralists can be identified. In this thesis the various hues of the organizer/behaviouralist debate have not been discussed or reviewed extensively. The references to both theories are predominantly used to highlight their similarities and to point out areas of significant disagreement and contention.   As an example, in dealing with a central element of this study, hierarchies, organizers such as Leavitt[38] argue that hierarchies are natural intrinsic

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[33] One way of seeing organizations is as a collection of dynamic social networks. There are formal and informal works. Stacey refers to the formal networks, which prescribe roles, authority, resources and controls, as legitimate systems. The informal, unofficial, self-oragnized systems are referred to as shadow systems. Shadow systems are important in Stacey's formulation as they are the determining factor of whether organizations exercise creativity.

[34] Searle's premise is that to understand a rule, a sentence and such like, one needs to understand the context. In and of themselves, rules and sentences are not self-interpreting. This context is what he refers to as the background. The background is further divided into a deep background (universals which includes biological skills and human capacities such as eating and walking) and a local background (which includes culturally constrained skills like appropriate behaviours in various situations).

[35] Aristotle distinguished between two kinds of wisdom; theoretical and practical wisdom. Theoretical wisdom dealt with answering philosophical/metaphysical questions. Practical wisdom dealt with ethics and social philosophy, in other words knowledge of what individuals ought to do and knowing what is for the greater good, how society ought to be organized.

[36] Martin Heidegger was interested in the philosophical notion of Being, that is making sense of the human being's capacity to make sense. According to Heiddeger, irrespective of where we are or whatever moment in our lives, we have been thrown there. Who, why or where we are thrown is unimportant. What is critical, that which defines our Being, is how we relate to our state of throwness.

[37] The terms Stratified Systems Theory and Requisite Organization are used interchangeably throughout the thesis. However, as Ivanov (2006) notes in his PhD dissertation, the theory has undergone various names over time. In the 1970s Jaques called it "The General Theory of Bureacracy", in the 1980s he used Stratified Systems Theory, in the 1990s Requisite Organizational Theory and in 2002, he called it the "General Theory of Managerial Bureacracy".

[38] Leavitt, 2003

ways to deal with the complexity of the natural world. They point out that the make-up of biological organisms, respiratory system, skeleton and central nervous system for example, are as hierarchical as our mental processes in undertaking a task such as assembling a bicycle. Hierarchies also provide us with identity and self-worth. For example, if one is asked "Who are you?" most working age people will mention a role they perform or have performed within a hierarchy. Hierarchies provide structure and regularity through the routines, duties and responsibilities assigned to us.

In addressing the same topic, behaviouralists such as Burns[39] note the mechanistic nature of hierarchies, pointing out that due to the specialized differentiation of functional tasks the goals of individuals within an organization may be different to those of the organization. Furthermore, within an organization, information[40] tends to be concentrated at the top of the hierarchy. Matters such as these make it difficult for a hierarchical organization to innovatively and creatively adapt to its changing environment. Boisot[41] elevates the debate arguing that an organization's knowledge and knowledge assets can be embedded in the heads of its employees or in physical artefacts like documents. These differing substrates exhibit varying information diffusion characteristics which complicate its interaction with the environment.

This thesis does not attempt to answer the question of how much organization or control of behaviour is required for optimal effectiveness within an organization. It does, however, attempt to show that there are numerous complimentary views between the structural debate as articulated by Jaques' in *Requisite Organization*[42] and Weick's behaviouralist argument as formulated in *Sensemaking in Organizations*[43]. Both Jaques' and Weick's theories are knowledge-based theories and as Patriotta[44] notes, knowledge has become a "hot topic" within the fields of organization theory and strategic management and is seen as a factor of production or a resource to increase competitive advantage, irrespective of whether it is approached

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[39] Burns, 1961

[40] Boisot's (1999) distinction between data, information and knowledge is important here. Boisot notes that data is the property of things or events, while knowledge is an expression of human thinking. Information links data and knowledge and it is data refined through perceptual and conceptual filters. Thus, what is centered at the top of organizations is information, typically contained in reports.

[41] Boisot, 1999

[42] Jaques, 1996

[43] Weick, 1995

[44] Patriotta, 2003

from a knowledge creation angle adopted by Nonaka and Takeuchi[45], or Nahapiet and Goshal's[46] intellectual capital view or Boisot's[47] knowledge management formulation. Bridging Stratified Systems and Sensemaking theories is thus a pertinent and relevant study.

## 1.2   Problem statement

This thesis takes a comparative theoretical approach to the study of optimizing sensemaking through organizational structuration as a means to provide another bridge between the organizer and behaviouralist schools of organizational theory. In a sense the thesis is also a partial attempt to link the phenomenological approach taken by Jaques in developing his Stratified Systems theory with the constructivist approach taken by Weick in outlining his Sensemaking theories. In adopting a phenomenological approach Jaques empirically focussed on workers at work, often engaging them in discussion as they went about their tasks. It is interesting to note that while Jaques obtained his knowledge *a posteriori*, that is experientially, his conclusions deal with mankind's *a priori* knowledge, which is non-empirical knowledge[48]. In line with the social constructivism approach, Weick emphasizes the construction and interpretation of reality that one imposes upon a situation. Since there are multiple impositions and interpretations of events and situations, normative behaviour shapes the reality created until cognitive dissonance occurs and new realities are created. This is particularly so in an organizational setting where there are multiple interdependent networks of people and events. Bridging these two approaches, schools of thought and theories is done by separately presenting Jaques Stratified Systems theory and Weick's Sensemaking theory and then combining aspects of the two theories, highlighting areas of commonality. If the commonality drawn is relatively strong then the hypothesis that sensemaking is enhanced in a requisitely structured organization will have been positively answered. However, if the links found are weak then the hypothesis will have been shown to be wanting.

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[45] Nonaka and Takeuchi, 1995

[46] Nahapiet and Goshal, 1998

[47] Boisot, 1999

[48] The development of this theory emanated from Jaques studies of 196 individuals over a number of years, with some individuals studied for over 25 years.

## 1.3 Thesis layout

This thesis contains five sections. The first section is the introduction, methodology and enunciation of the problem above. The next section initially presents Jaques Stratified Systems theory and then reviews it against existing literature on hierarchies and time. Particular attention is paid to time due to its criticality as a foundational aspect in the development of Stratified Systems Theory. The section also outlines the fundamental assumptions on which the theory has been built. If these assumptions are found wanting then the theory is built on quicksand. Moreover, further criticisms of Stratified Systems Theory, contrasting them with Jaques writings which could be construed as responses to those criticisms, are presented. Included in these retorts are Jaques experiences as he developed the theory. The third section presents Weick's sensemaking theory with its criticisms and support. Initially generic sensemaking is presented by briefly outlining Weick's seven properties of sensemaking. This generic sensemaking is further whittled down to the organizational level using Wiley's formulation as a basis. Having laid out Stratified Systems Theory and sensemaking theories, the fourth section is used to derive common links in both theories using parameters such as work and its definition, organizational forms, contextualization, leadership, accuracy and plausibility, trust and so forth. The concluding section provides general views about sensemaking in requisitely organized structures and further outlines further research that could be undertaken.

# 2

# Jaques' Stratified Systems Theory

## 2.1 Hierarchies

Elliott Jaques asserts that managerial organizations have become critical and defining social institutions of modern free enterprise democratic society. In fact he argues that the central socio-political challenges for 21st century democracies are reconstituting healthy families and their values, revamping educational systems and restructuring organizations in a scientifically-based and requisite manner[49]. Jaques argues that with the demise of various other institutions, the managerial organization has become the pre-eminent social institution and the nature of the organization is the most important factor in the effective interaction of people. This assertion contradicts arguments that attribute people's personality characteristics as the most critical factor[50]. While Jaques concedes that there are myriad personal characteristics that could become dysfunctional[51], he is not aware of any positive temperamental characteristic requirement for effectiveness in a specific role[52]. To illustrate his point he argues that a researcher is not required to be more analytical than others as all work requires analysis. However, research workers need to value[53] learning and applying analytical methods in a similar manner that a manager has to value managing others. The

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[49] While many share these views, this view is stated differently and more broadly by Sir Adrian Cadbury, as reported in King II (2001). In discussing corporate governance Sir Cadbury has said the the goal is to hold "the balance between economic and social goals and between individual and communal goals…the aim is to align as nearly as possible the interests of individuals, corporations and and society."

[50] With this assertion, Jaques is arguing against the general theses of positive psychologists. Positive psychology is a relatively new sub-field of psychology, with its roots being traced to the late 1990s. Its pre-emininet proponents include Martin Seligman, Ed Diener, Barbara Fredrickson and CR Snyder. These assertions were Jaques', and as will be seen later, Weick's, response to this new sub-field.

[51] A common complaint is that hierarchies engender unsavoury human aspects such as greed, careerism, egotism and insensitivity. These negative human behaviors have led behavioural scientists to search for different, more cooperative non-hierachical organizational forms and Jaques argument here is that the negative behaviours emanate from misuse of the hierarchy and do not necessarily disappear with a change of organizational form.

[52] By role, Jaques is referring to a position within an organization.

[53] While values can be defined in various ways, Jaques definition is "Those things to which an individual will give priority or wants to do." In other words, "values are vectors which direct our actions". Jaques, 1996

confusion of personal characteristics and values has resulted in a preoccupation with assessing and changing personality factors, leading to their use as selection criteria to the detriment of personnel and the managerial organizations they work for. Rather, Jaques advocates changing managerial systems without resorting to attempts at changing people's personalities by applying "spurious single-step solutions"[54]. Gibson et al. [55], agree that universally agreed-upon methods managers can use to change personalities, attitudes, perceptions, or learning patterns do not exist. They contend that employees' behaviours are influenced by societal, cultural, hereditary and specific role factors. While Gibson et al do present well-known motivation theories such as Maslow's hierarchy of needs theory and Herzberg's two-factor theory[56], that is theories that have been popular management attempts to improve behaviour to attain goals, they also note the shortcomings of the theories. For example, they indicate that Maslow's hierarchy of needs theory has not "met rigorous standards of scientific testing"[57] and Herzberg's theory has not been replicated by others. It is these types of shortcomings and lack of scientific rigour that has led Jaques to assert that "there is not one single, well-established concept in the field of management on which you can build a testable theory".[58]

Others such as Gareth Morgan[59] have partially laid the blame of ineffective organizations on their hierarchical nature and proposed other forms of organization. While Jaques does not out rightly dismiss this argument as he recognizes that many organizations are steeped in "bureaucratic red-tape-ism, weak or autocratic leadership [and] unclear accountability and authority,"[60] Jaques decries as wrong all who like Morgan, argue that hierarchies are "old economy stuff"[61], that is, hierarchies were satisfactory for mass production work in the nineteenth and twentieth centuries. In a similar vein Jaques disagrees with Peter Drucker who predicted that hierarchies will be replaced by models such as symphonies without intermediaries[62], and refutes the

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[54] Jaques, 1996

[55] Gibson et al., 2003

[56] See footnotes 22 and 23 for further discussion on these theories.

[57] Gibson et al, 2003

[58] Kleiner, 2001

[59] Morgan, 1997.

[60] Jaques, 1996

[61] A. Kleiner, 2003 explains that Gareth Morgan was quoted in the *Toronto Globe and Mail* as saying that Jaques "has a powerful idea, but it's old-economy stuff".

[62] Jaques, 2000. Jaques argues that the symphony metaphor is used to express a desire for greater unity, togetherness. However he dismisses it by noting that at work individuals seek recognition and reward

assertions of people like Gifford Pinchot[63] that hierarchies will be replaced by models which are not based on domination and submission[64]. Jaques argues that it is not hierarchies that constrict human capabilities as Morgan argues, but rather their structuring or organization is inadequate. In fact Jaques' assertion is that hierarchies are natural human entities and therefore the "existence of the managerial hierarchy is a reflection in organizational life of discontinuous steps in the nature of human capability" [65] and postulates that the hierarchical system, which has been in existence for over 3,000 years, shall be in existence for another 3,000 more. According to Jaques, hierarchies are the "only form of organization that enable a company to employ large numbers of people and yet preserve unambiguous accountability for the work they do"[66]. It is his staunch defence of hierarchies that has led to Jaques being labelled "rigid, mechanistic, a fascist, and a Taylorist"[67][68]. Despite the criticism, Leavitt[69] agrees with Jaques and argues that hierarchies fulfil a deep-set human need as even in the newer forms of organizational structuring subordinates report to superiors, middle managers report to senior managers and departmental heads report to business unit leaders and so on. While the newer forms may have changed parts of the design, the blueprint remains the same. He further points out that human society continue to build hierarchies despite their professed dislike of them. In fact, the greater the intensity of the denunciations of hierarchies, the greater this highlights their durability. However, Leavitt[70] also notes that hierarchies can be poisonous in that they can lead to distrust, dishonesty and fear if leaders are unaware of the perceptions of the power they wield due to their position in hierarchies.

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despite the group's performance. This concept is further discussed in the section dealing with Jaques assumptions.

[63] Pinchot was the Chief of the United States Forest Service in the early 1900s. He was an advocate for the conservation of natural resources and coined the term conservation ethic.

[64] Leavitt, 2003

[65] Jaques, 1994. The argument posited here is that not only is there increasing degrees of complexity in a hierarchy but also there are step changes in complexity which allow the complexity of the work to be categorized. Increasing complexity in work is obvious but the step change in complexity is not so obvious. It is this step change that differentiates Jaques work from other management authors.

[66] Jaques, 1990

[67] A Kleiner, 2003

[68] While there are notable similarities between Frederick W. Taylor's (1911) and Jaques theories there is at least one notable difference in the two. Whereas Taylor distinguished managers as thinkers and other employees as doers, Jaques ascribes thinking to all work levels but differentiates the levels by the time horizons the people can effectively function at. Furthermore Weick addresses the major criticism of hierarchies as being insensitive and inhumane (see Morgan, 1997 for example on this topic) by introducing requisite managerial leadership practices as will be seen in the following pages.

[69] Leavitt, 2003

[70] Leavitt, 2003

## 2.2   Managerial Accountability Hierarchy

Jaques and Kathryn Cason[71], in their search for reasons to explain the existence of the managerial hierarchy, made fundamental mental processing[72] observations that Jaques refers to as "the big finding"[73]. The key findings were:

1. "There is a hierarchy of four ways, and four ways only, in which individuals process information when engrossed in work"[74]. Jaques and Cason have labelled these information mental processing methods as declarative, cumulative, serial and parallel[75].

2. These information processes recur within higher and higher orders of complexity of information. That is, in the world's largest and complex organizations where there are eight mental processing strata, the processing methods of declarative, cumulative, serial and parallel found in the lower echelons are repeated in the higher echelons but with a greater level of abstraction.

3. Each of these processes corresponds to a distinct step in potential capability of individuals.

4. There is a ".97 correlation between the universal underlying managerial layering of the managerial hierarchy and each discrete step in complexity of mental process (and thus, potential capability)"[76].

These findings led to what Jaques called managerial accountability hierarchies, to emphasize managers'[77] accountability over their immediate subordinates and the

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[71] Jaques and Cason, 1994

[72] Mental processing refers to the combination of applying discretion and judgement in decision-making. It is the way information is assimilated, mulled over, reorganized and contextualized to draw conclusions, make plans and decisions in order to take action.

[73] It is this assertion of this finding that led to many of Jaques ideas being black-balled. As Kleiner,2003 notes, Jaques often stated that his finding was the one and only management theory that was not a fad but was a panacea for organizational structuring and could withstand any credible, rigorous scientific scrutiny. All other modern theories he considered unscientific.

[74] Jaques, 1994

[75] These processes are further discussed and defined in subsequent sections

[76] Jaques, 1994. The processes and procedures used to attain these correlations can be found in Jaques and Cason's book, *Human Capability*.

[77] Jaques further emphasizes accountability in his definition of a manager as one who is "held accountable not only for his/her personal effectiveness but also for the output of others; and is

cascading of work[78] and accountability in sequential layers down the organizational hierarchy. This discovery formed the basis of Jaques thesis on making hierarchies work, namely differentiating between pay scales and hierarchical layers. Often companies set out pay scales which are two to three times the required working levels resulting in the negative behaviours often associated with bureaucracy – poor task setting, excessive passing of problems up and down the organization, frustrated subordinates, wary managers and ineffective performance appraisals. Many of these problems can be resolved if cognitive capability and pay scales needs are separated.

Before delving further into the details of the managerial accountability hierarchies, Jaques spent time differentiating between an association and managerial accountability hierarchies. He explains that an association is an entity (such as a company, church, nation, etc.) that elects its governing body (e.g. a board or government) and then mandates that governing body to effect its work through employees, hence giving rise to the managerial accountability hierarchies. Since members of associations are not employees, that is do not have a manager-subordinate relationship, organizations such as churches and partnerships construed in such a manner, fall outside the ambit of managerial accountability hierarchies. This view is the same as Weber's observation that "there is no such thing as a hierarchy of elected officials in the same sense as there is a hierarchical organization of appointed officials."[79]

Having bounded the discussion, Jaques explains that Stratified Systems Theory starts with an analysis of human nature, values, and culture, to derive a mission. The mission gives rise to functions and functional alignment. The aligned functions are then structured into a requisite organization[80] where managerial leadership and human sub-systems (such as selection, task[81] assignment, mentoring, and differential

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accountable for building and sustaining an effective team of subordinates capable of producing those outputs, and for exercising effective leadership". Jaques, 1994

[78] Jaques defines work as the "exercise of discretion, judgement and decision making, within limits, in carrying out tasks: driven by values, and bringing skilled knowledge into play". Jaques, 1996

[79] M. Weber, Legitimate Authority and Bureacracy, reproduced in Pugh 2007.

[80] Jaques1996. Jaques uses the term requisite in accordance with the Oxford English Dictionary of required by the nature of things to define the requisite managerial accountability hierarchies as an organization where patterns of connections "ought to exist between roles if the system is both to work efficiently and to operate as required by the nature of human nature and the enhancement of mutual trust."

[81] Jaques, 1996. Jaques defines a task as a quantitative and qualitative output to be completed within a given time and within specified resource, policy, regulatory boundaries. In other words, Jaques views

compensation) can be effectively administered.

## 2.3   Hierarchy of mental processing

As noted above Jaques and Cason's[82] critical finding was that there is a hierarchy of only four ways in which humans process information when engrossed in their work[83]. The lowest level of processing information is declarative. In this form disparate statements and positions are articulated. The person arguing does not make connections between the statements resulting in declarations of a position. Thus a person might argue as follows: "Here's one reason for my idea, here's another, I could give you others as well."[84] The next higher level of mental processing is cumulative where statements or ideas that of themselves are insufficient to make the point are brought together. This is similar to the way that a detective could argue where they might say, "If you take this first point (clue), and put it together with these three other items we have observed, then it becomes clear that such-and-such has occurred." [85] Higher yet in the mental processing hierarchy is serial processing. In this instance arguments are created by linking reasons to create a series. A typical argument might be "I would do A because it would lead to B, and B will lead on to C, and C would lead on to where we want to get." [86]   The highest level of mental processing is parallel. In this argumentation a number of serial arguments are held in parallel and can be rearranged and relinked to create an even richer argument. For example serial arguments ABC, DEF and MNOP could be rearranged and relinked to ABFOP resulting in conclusion Z.

Jaques and Cason[87] have also articulated five orders of increasing information complexity[88], namely pre-verbal, concrete verbal, symbolic verbal, conceptual

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all tasks as mini-projects, if one uses the standard definition of a project as an output with a defined time frame and resources.

[82] Jaques, 1994.

[83] Jaques, 1994. To simulate engrossment in an interview situation, Jaques and Carson asked interviewees to discuss a relatively common but contentious topic such as the use of drugs, abortion, reducing crime etc.

[84] Jaques, 1994

[85] Jaques, 1994

[86] Jaques, 1994

[87] Jaques, 1994

[88] Complexity of problems, strategies or tasks are dependent on the number, rate of change, clarity, ambiguity and extent of interconnectedness of the variables involved. Thus while each level of information processing inherently has a measure of complexity, the levels differ in degree (or quality) rather than in quantity.

abstract and universals[89]. Pre-verbal is self explanatory while concrete verbal is the world where thoughts and their articulation refer to things that can be pointed out, that is referring to concrete things. The concrete verbal world is generally the childhood stage. In the symbolic verbal representation thoughts and ideas do not have to directly refer to things that can be pointed out but rather recall a previously seen thing or understood concept. The conceptual abstract level differs from the symbolic level in complexity and depth. For example while the symbolic verbal level might deal with maintaining information systems and taking product orders from customers, at the abstract conceptual level in an organization socio-economic policies and large-scale international political problems are also tackled. The world of universals revolutionizes whole societies, creates new and lasting societal philosophies and ideologies and is the level of geniuses such as Karl Marx and Albert Einstein. Of these information complexity orders, Jaques and Cason focussed on the symbolic verbal and conceptual abstract. Combining these two orders of complexity with the four mental processes they developed a hierarchy of mental processing strata[90] as shown below:

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[89] These orders are simlar to those articulated by other psychologists such as Piaget. This is not surprising given Jaques training as a psychoanalyst.

[90] Jaques, 1994. Jaques and Cason noted that there was a "regular pattern of real earnings" and a consistent "growth of time-span in level of work" of their subjects. The findings were evident and verified in "countries ranging from industrially developed to less economically developed nations" and it was for these reasons that Jaques and Cason concluded that this regular pattern is a deeply inbuilt human characteristic.

| Stratum of Role (i.e. Level of Work[91]) | Complexity of Mental Processes Required[92] |
|---|---|
| Stratum I | Symbolic Declarative |
| Stratum II | Symbolic Cumulative |
| Stratum III | Symbolic Serial |
| Stratum IV | Symbolic Parallel |
| Stratum V | Conceptual Declarative |
| Stratum VI | Conceptual Cumulative |
| Stratum VII | Conceptual Serial |
| Stratum VIII | Conceptual Parallel |

Table 1: Jaques and Cason's hierarchy of mental processing strata

Stratum I roles involve routine work where there is constant supervision. The longest tasks in these roles have a time horizon of one day to three months. Stratum II roles have a time horizon of three months to a year and it is at this level where frontline managers and supervisors are found. The felt-fair pay[93] at this level is one-and-a-half times that of stratum I. Stratum III roles, where the time horizon is between one and two years, is the level where departmental heads, owners of multistore franchises and highly skilled technicians managing few people can be found. Felt-fair pay here is six times that of stratum I. Stratum IV, the highest symbolic level, requires an ability to deal with diverse functions and constituencies. It is at this level that managers of large factories and laboratories are found. The time horizon at this level is between two and five years with a felt-fair pay of twelve times stratum I. Stratum V is the lowest level of abstraction. This level is a critical level in large multinational organizations as it is

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[91] Jaques, 1994. Level of work refers to what is commonly described as the size of the position, how big a role one position is compared with another, or how heavy the responsibility is in a job.

[92] Jaques, 1994. It is important to note that Jaques and Cason differentiate between potential and applied capabilities. This table refers to both. Applied capability refers to the job an employee is currently performing, considering their mental processing capability, commitment to (or value of) their work and skilled knowledge developed. Potential capability is "the very highest level at which a person could work now, in work that was strongly valued and for which the person had had the opportunity to have gained the necessary skilled knowledge. (It is a function of that person's maximum complexity of mental processing)."

[93] Jaques, 1996. In his studies, Jaques was prone to asking employees across the organizations spectrum what they felt was a fair pay for various roles, hence the term "felt-fair pay". He found that the employees assessments were similar and he then developed the felt-fair pay concept. This is a critical component of the managerial accountability hierarchies.

the link between the symbolic machinations of factories and abstract workings of head offices. Many divisional executives and business unit heads are found at this level. The time horizon is between five years and ten years with a felt-fair pay of twelve times Stratum I. Strata VI and higher are people who have a time horizon over ten years with felt-fair pay of 24 times stratum I (for stratum VI) to 48 (VII) and 96 (VIII). Chief executive officers of the largest multinational companies in the world typically have a stratum VIII mental processing capability. Stratum VIII and the universals strata (Strata IX to XII) are excluded from this study.

Using Charan et al[94] terminology and attributes in Jaques formulation one would typically have an organization structured as follows:

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[94] Charan et al, 2001

| Cognitive Levels | Roles | Managerial Type | Examples of Skills, Time, Values | Salary (including bonus) |
|---|---|---|---|---|
| VII | CEO (International Co. Limited) | Managing Enterprise | *Strategic ability & vision –direction setting for the company* *Read a lot to stay abreast political, social, business trends* *Values asking questions & listening to groups* | VII High (H) - R9.6m VII Medium (M) - R7.68m VII Low (L) - R5.76m |
| VI | Regional CEO | Managing Group | *Allocate limited resources to competing units* *Time on corporate matters, explore new businesses* *Socratic supervisory approach* *Multi-dimensional thinking* | VI H - R4.8m VI M - R3.84m VI L - R2.88m |
| V | MDs (Manufacturing Facility A, B, C) | Managing Business | *Building business strategy* *Time management - subordinates, bosses, customers* *Inspired & energized communicator* *Translate profit requirements into behaviours* | V H - R2.4m V M - R1.92m V L - R1.44m |
| IV | General Managers for Operations, Finance, Marketing, etc) | Managing Function | *Skilled seeker & interpreter of info* *Time on functional strategy* *Think both long-term & short term* *Delegates & has control system in place* | IV H - R1.2m IV M - R960k IV L - R720k |
| III | Plant, Financial, & Technical Managers, Senior Technicians | Managing Managers | *Holding 1st line accountable for managerial work* *Time for unit evaluation* *Motivate & coach 1st line managers* | III H - R600k III M - R480k III L - R360k |
| II | 1st Line Managers (Production, Financial, Engineering) | Managing Others | *Planning, job design, delegation* *Annual planning - budgets & projects* *Results through direct reports* | II H - R306k II M - R252k II L - R192k |
| I | Operators, Foremen, Clerks, etc | Managing Self | *Technical/Professional ability* *Daily discipline - arrival, departure* *Results through personal proficiency* | I H - R169k I M - R140k I L - R112k |

Table 2: A hierarchical structure derived from Charan et al and Jaques

While there has been some agreement with Jaques' requisite organization thesis, there have been variations and changes suggested by others. For example, Rowbottom and Billis[95] agree that the concept of completing work within a given time frame is a logical measure of accountability, but they dispute the universal reliability and sensibility of time as a measure of innate ability above Jaques stratum V, suggesting that these longer time horizons are too ethereal. In so doing, Rowbottom and Billis proposed a shift away from time measures to the expected work of a role noting

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[95] Rowbottom and Billis, 1987

distinctions with other roles. Building on this idea Dive[96] formulated a premise that organizational hierarchical levels are a result of work complexity rather than mental processing capability. Dive called his formulation Decision-making Accountability[97].

Jaques[98] agrees that humans' ability to forecast for a time frame longer than 10 years does not engender confidence neither in the people making the forecast nor in their audience and concrete planning and budgeting is not feasible. Over 10 years there is a shift from forecast planning to an envisionment of a desired situation. Jaques, Bygrave and Lee[99] nevertheless argue that these long-term visions are a necessity, making some important observations in the process. Firstly they note that experienced executives of the large operations working at this level do not refer to the time horizons in years but rather in generations. So, for example a 50-year time horizon would be referred to as three-generation time frame. Secondly, they make the distinction that at these levels the emphasis is not on tasks but rather on the overall state or condition that the organization is being driven to, taking into account highly abstract assumptions of the long-term social, technological, economic and political condition of the world and life in the future. Finally, based on personal interaction with some of the CEOs of large corporations Jaques observed that these leaders develop well articulated long-term strategic goals ensuring the economic and managerial health of their organizations.

## 2.4   The role of time

Despite Dive's[100], Rowbottom and Billis'[101] misgivings at higher levels, the argument posited is that greater responsibility in an organization is an indication of an increased time horizon or as Jaques calls it time-span of discretion (also referred to as time-span)[102]. Time-span is an indication of the maximum time to complete a task based on the organization's goals and it is a direct measure to determine the level of the work. Not only is it the correct measure but Jaques argues that it is "an objective fact, since

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[96] Dive, 2004

[97] Dive, 2004. Dive instituted this idea at Unilever and Tesco and reported that the findings, although showing some measure of success, were incomplete.

[98] Jaques, 1996

[99] Jaques, Bygrave and Lee, 2001

[100] Dive, 2004

[101] Rowbottom and Billis, 1987

[102] Jaques, 1996

it is derived from an objectively stated decision of a manager."[103] Furthermore, time-span measures are "non-falsifiable, because managers are committed objectively to the target completion times set, and the effectiveness of their time-targeting can be checked by their own managers."[104] Thus in order to cope with higher strata roles, greater mental processing complexity is required. In other words, "the greater your potential capability, the greater your working outreach in time – the farther into the future you can not only plan, but can carry those plans through to the point of realization."[105] Floyd and Lane[106] have corroborated this with their finding that people with a longer time horizon are found at the higher echelons of an organization. In his studies on the pace and rhythm of organizations, Eisenhardt[107] noted that successful senior managers adopted and conformed to a temporal pace and horizon attuned to their competitive environment, while Schein[108] found that functional subgroups have a different temporal pace. Ancona et al[109], also hold the view that the incorporation of time-spans into organizational design would optimize organizational functioning. In their proposal they introduce three temporal zones in an organization, short-term, medium-term and longer-term zones and then link these with Type A or B personality types. The Type A personalities who have a higher degree of focussing on the present would deal with the shorter term work.

It is this concept of making time the underlying central structure of his thesis that gives one the ability to test Jaques ideas. Due to time's importance in Jaques thesis and its contentiousness, I will digress momentarily and briefly review some research on time. Goodman et al[110] refer to time as a "central issue in all disciplines of inquiry, from planetary physics to cell biology". Ancona et al[111] agree, further noting that disparate proposals such as Taylor's scientific management ideas, Durkheim's religious setting descriptions and Weberian organizational theory all have time as a foundation. Furthermore, they note that the Industrial Revolution was possible because labour was made a commodity that could be measured, standardized and

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[103] Jaques, 1996

[104] Jaques, 1996

[105] Jaques, 1996

[106] Floyd and Lane, 2000

[107] Eisenhardt, 1986

[108] Schein, 1992

[109] Ancona et al, 2001

[110] Goodman et al, 2001

[111] Ancona et al, 2001

traded because of clock time. Time remains a critical factor even in an information age as envisaged by Castells'[112] notion of timeless time. In Castells formulation previously sequential events are rearranged to work simultaneously creating his concept of eternal ephemerality. The idea of timeless time is fundamentally similar to Jaques idea of parallel mental processing in that both involve a rearrangement of processing events within a time period. Just as Jaques described four mental processing modes, Butler[113] has proposed four ways of explaining, understanding and reacting to time. Butler's four temporal styles of clock, organic, strategic and spasmodic time can be paralleled to Jaques mental processing modes of declarative, cumulative, serial and parallel. Other authors such as Sherman[114] have also described temporal personalities. These temporal personalities are unique and are borne out of one's cognitive and behavioural dispositions. For example, Blount and Janicik[115] have shown that Type A personality characteristics, self-control, impulsivity and a need for closure are personality traits that affect tolerance for delays.

Time also has different meanings in various cultures. Hall[116] introduced the notion of polychronic and monochronic cultures to describe the shared meaning of time for a given culture. Whereas people from monochronic cultures sequentially engage in one activity at a time, those from a polychronic culture may engage in a number of activities with a given temporal continuum. Slocombe[117] has built on this further proposing that polychronicity is an individual characteristic. This last proposal mirrors Jaques big findings.

In an organizational setting common conventions to segment and efficiently utilize time include defining business hours, fiscal year and project due dates. As Lauer[118] points out project due dates, appointments and meeting times become key temporal reference points. These temporal reference points allow managers to coordinate activities so that functions, groups and individuals can be managed in a rational manner without experiencing excessive uncertainty and dysfunctional conflicts which might otherwise occur if for example, parallel or sequential activities share resources

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[112] Castells, 2000

[113] Butler 1995

[114] Sherman, 2001

[115] Blount and Janicik, 2001

[116] Hall, 1959

[117] Slocombe, 1999

[118] Lauer, 1982

and have common transitional boundaries[119]. Not only do the references allow managers to coordinate activities by allocating temporal resources within an organization, cognitively these reference points also explain how people understand events. All events that conform to the reference points are experienced as normal. Events that differ from the norm require greater cognitive processing as stated in norm theory.[120]

As Blount and Janicik[121] note, temporal references are dependent on an individual's innate temporal tendencies, nonwork related influences such as culture and family and work context. For example, Schein[122] has observed that functional groups within an organization work at different temporal paces. The temporal rhythm of a research department differs from that of an accounting unit whose work is much more predictable and somewhat repetitive. In the case of the research department, process, which cannot be rushed, is the overriding factor, whereas in the accounting unit, closure is the goal. Similarly Eisenhardt[123] has noted that successful senior management teams adapt their temporal pace to the demands of their competitive environment. Schein[124] has also discovered that organizational temporal structures form important aspects of the organizational culture and are dependent on factors such as the degree of strict adherence to deadlines, the importance of punctuality, the preferred working pace, that is fast or slow, the value assigned to quality versus speed in decision making and allowances made for personal time to intrude into work hours.

Blount and Janicik[125] have also introduced the concept of an individual's prevailing temporal agenda which is an indication of how the individual perceives their work group and organizational temporal structure. The prevailing temporal agenda influences the way in which the individual then acts and reacts to activities within their environment. For example depending on an individual's prevailing temporal agenda due dates for reports, activity completion dates and meeting times could differ

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[119] Bluedorn & Denhardt, 1988

[120] Kahneman & Miller, 1986. In norm theory, Kahneman and Miller starting from an assumption that all information about something cannot be stored in memory, propose that summary representations typical of that category are used in working memory. These typical representations are called category norms.

[121] Blount and Janicik, 2001

[122] Schein, 1992

[123] Eisenhardt, 1989

[124] Schein, 1992

[125] Blount and Janicik, 2001

from the stipulated times. Cognitively the prevailing temporal agenda provides individuals with cues for time planning and utilization and provides meaning by contextualizing their work within the greater organization's goals. If an individual is pressurized to complete a complex task at a greater rate than their prevailing temporal agenda, then they could rely on suboptimal cognitive processing abilities resulting in substandard work and negative emotional outcomes[126]. Situations like these occur when project deadlines are shortened or people are promoted too early into more complex roles. This concept of a prevailing temporal agenda is Jaquerian.

## 2.5 Requisite structures and processes

Having articulated the double-headed thrust of his argument, namely that individuals potential capabilities are hardwired into them, can be determined, and that the complexity of each role in an organization can be differentiated according to its time-span, Jaques summarizes his most critical factor for a requisite hierarchical organization as the managerial accountability hierarchies "must be organized so that the hierarchy of successive organizational strata accords with the hierarchy of successive mental states of the individuals who inhabit roles in those strata."[127] In other words, the applied capability of the immediate manager must be one level higher in capability than the subordinate.[128] Examples of both requisite and non-requisite reporting lines are shown below.



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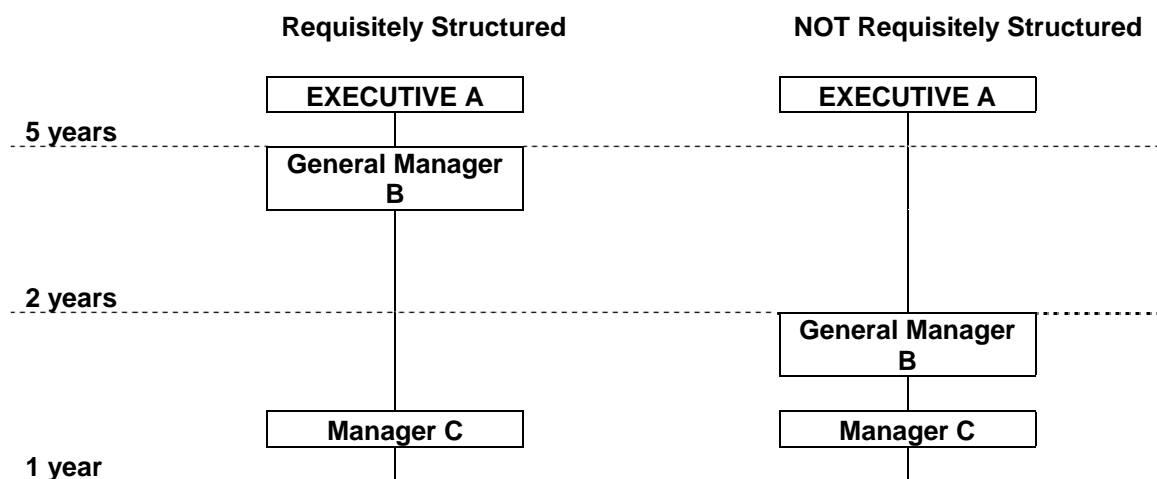
[126] Webster, 1993

[127] Jaques, 2000

[128] It is critical to note that Jaques is referring to applied capability. The MANAGERIAL ACCOUNTABILITY HIERARCHIES is still requisitely structured if an unskilled 20-year old with conceptual cumulative mental processing capabilites (stratum VI) is currently performing stratum II work and reports to a skilled 50-year old manager wth symbolic serial mental processing capabilities (stratum III) doing stratum III work. However, if the 20-year old develops the required skill and values their work over time, continued functioning in that role will render the situation anti-requisite.

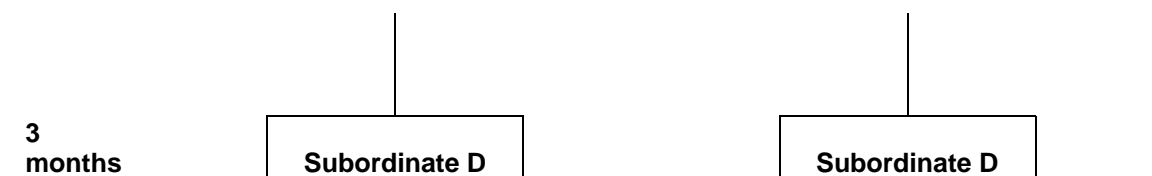| 3 months | Subordinate D | | Subordinate D | |

Figure 1: Examples of requisite and non-requisite structures

The critical and novel aspect of structuring work in this manner is that in managerial accountability hierarchies the manager is accountable for the results of all his or her subordinates and for assigning value to the work of the subordinates. This is particularly required for the head of an organization whose effective working capacity is the most important factor determining the growth, contraction, or the stability of an organization, which is "contrary to common belief that economic or market conditions produce these effects. Such conditions may provide the opportunities for organizational change, but not the changes themselves."[129]

To ensure and maintain a requisite structure, Jaques[130] argues that over and above structuring the organization in a hierarchy comprising a system of managerial accountability and authority layers with the establishment of specific functions at given organizational levels, there also needs to be:

a. *Two-way managerial team working* which are regular meetings with all immediate subordinates to discuss context, plans, problems and suggestions. In other words, all people at the meeting provide current information, brainstorm and seek guidance from their immediate manager.

b. *Context setting* where the background within which work must be carried out is regularly updated.

c. *Planning* which involves the presentation of alternative courses of action to deal with problems ensuring subordinates' understanding of their work and to get their inputs.

d. *Task assignment* in a way that the assigned tasks need to be just-in-time and just-within-quality standards.

e. *Personal effectiveness appraisal* where the manager is making a judgement of how well his or her subordinates are working and discussing their progress with them.

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[129] Jaques, 1994
[130] Jaques, 1996

f. *Merit review* is a periodic judgement and discussion of personal effectiveness and annual evaluation of applied capability with a decision on pay level within bands being made.

g. *Coaching* is helping individual subordinates learn how to handle a wider range of the processes that occur within the unit, so that they may advance in their careers. All managers are coaches.

h. *Selection and Induction* are practices for choosing new subordinates and for introducing them to the unit. Jaques' recommended selection practices are novel in that the accountability for selecting prospective subordinate A lies with manager C, who is manager B's manager. Manager B is the future manager of prospective subordinate A and his or her role is in vetoing a shortlist of candidates drawn up by manager C. Jaques reasons for such an arrangement include:

    i. A request for additional subordinates is an opportunity for manager C to review manger B's effective use of his subordinates and to check the assignment load of manager B's subordinates.

    ii. Manager C can reduce the role of his subordinates who are not coping and give those people who have too small a role opportunities to tackle larger roles.

    iii. Manager C also has an opportunity to review potential people to fill manager B's role in the near future. Manager B does not have a full and complete overview of his role and hence cannot see who might be able to do a similar job to him or replace him.

i. *Deselection[131] and Dismissal.* Based on the selection argument above it is feasible that managers can be assigned an employee who cannot cope with their role. Deselection is the manager's authority to initiate removal of an employee so that they can seek work elsewhere within the organization. If they are unable to secure work elsewhere they are released from the organization's employ with similar benefits to someone who has been retrenched.

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[131] Deselection is Jaques proposal to confer authority on a manager to remove an employee from a role while protecting the employee if they genuinely seek to contribute to the organization.

*j. Continual Improvement.* Jaques argues that individuals are not accountable for improving the way they work. They are only accountable for working at the level of the role they occupy. Thus continual improvement which is seeking minimal or zero process variance is the responsibility of all managers. One of the ways to achieve this is for managers to hold their subordinate managers responsible for maintaining updated process improvement project plans.

Hierarchies in the past have been accused, in many instances correctly so, of treating people as "automatons"[132]. These managerial requisite managerial practices, to a large extent, address these inhumane aspects that have been attached to hierarchies. The above are the key aspects of the managerial accountability hierarchy total system which Jaques claims has resulted in "gains of 100% to 200%"[133] in organizational effectiveness. Companies that are reportedly applying Stratified Systems Theory (or a version thereof)[134] include Rio Tinto, United Stationers, First National Bank of Omaha accountability hierarchies, Bank of Montreal, Commonwealth Bank of Australia, CIBC (Canadian Imperial Bank of Commerce), Hoffman Laroche and Unilever[135]. It is unclear whether they saw the gains Jaques claimed they could attain.

## 2.6 Stratified Systems Theory assumptions

There are a number of critical assumptions that Jaques has made which underpin his conclusions. Jaques has assumed that all people seek to work at levels where they can exercise their full capabilities and to be rewarded fairly for their work. For people to feel that they are being used to the fullest and are remunerated fairly it is critical that trust between people at all levels of the hierarchy is evident. One of the key goals of a requisite organization is to heighten the level of trust within the system by denuding the hierarchy of unnecessary layers. Redundant layering creates mistrust without

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[132] Morgan, 1997

[133] Jaques, 2000. Data to verify these types of gains was not found by this author.

[134] According to Charan, Drotter and Noel, 1999, General Electric uses a leadership pipeline methodology. This methodology is a qualitative corroboration of SST. Instead of differentiating according to time-span, the levels of managerial levels are differentiated according to managerial complexity.

[135] It is reported that there are numerous other companies using SST. For example the consultancy group Global Organizarion design, www.GlobalRO.org, says that there are over 200 organizations using SST and it lists some of the companies I have noted. However Kleiner notes that some companies do not publicize their use of SST lest they be blackballed by those opposed to SST. However the terminology used within companies makes it evident that they subscribe to SST. For example, when I approached Unilever to ask about their use of SST or levels of work, I was declined an interview, without a cogent reason given. Nevertheless language like "work levels" is commonly used at Unilever.

adding value. Jaques calls trust "the basic social glue"[136] of all reasonable human relationships. If mutual trust is evident, people do not have to like one another to work together in full collaboration and effectiveness. Jaques also eschews special awards and bonuses as a necessity for people to do satisfying work. In order to protect their psychological well-being, people desire the opportunity to do work that is valued by others, irrespective of where or what the job entails.

With regards the discussion of each person's potential for given levels of work, Jaques has assumed that potential capability will mature within a single maturation band across the modes contained within that band. Each person's potential is distinct and self-evident hence his argument that not everyone has the ability to become the chief executive officer of multi-national organizations such as General Electric or Microsoft. A further critical assumption and assertion that Jaques makes, is that the maturation process within a band overrides "all but massive catastrophic events that might befall a person."[137] This means that potential capability growth continues despite any lack of educational, socio-economic, or occupational opportunities. Just as importantly Jaques has assumed that every psychologically healthy adult's highest mental processing level can be ascertained and their most likely maturation path can be charted.

It is further evident that Jaques has assumed that individuals and not group dynamics and interactions are the critical building block in requisitely structuring a hierarchy.

Jaques downgrades the role of group interplay reasoning that the only true group is the board of directors since it is the only group that is corporately liable. Despite individuals working in a group from time to time, they are held individually accountable and the members of the group also seek individual recognition and career advancement despite accomplishments being accredited to the group. Furthermore, he argues, organizations do not employ groups but individuals. It is on this basis that Jaques is dismissive of proposals that emphasize groups. While these proposals discuss group authority, decisions and consensus, they are bereft of discussions on group accountability. In Jaques formulation authority stems from and is a secondary matter to accountability since the authority required should be enough to discharge the accountability. Thus, if a group is given authority but it is not held accountable it is

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[136] Jaques, 1996
[137] Jaques, 1994

dysfunctional. Furthermore, holding a group accountable is unacceptable to the individuals within the group.

## 2.7 Stratified Systems Theory criticisms

Jaques findings are controversial and are subject to disagreements and contention. In this section I have outlined some of the criticisms not mentioned in detail in the preceding chapters or requiring further emphasis and contrasted those with possible Jaques responses based on his writings. I have mainly used Jaques own responses as he has had to constantly address criticisms and blackballing of his ideas.

A perusal of Jaques bibliographies shows that much of his references are of his own previous work, his previous collaborators or people who have utilized his work. This opens him up to accusations of proselytizing, obduracy and closed-mindedness. There are three broad defences that Jaques uses to refute the criticisms. Firstly he refers to his extensive experience. Secondly he points out the weaknesses of his critics arguments (usually without referring to any specific writers) and finally he challenges all to use scientific means to test the validity of his findings. Jaques refutations are further expounded on below.

Jaques was a founder member of the Tavistock Institute of Human Relations. While at Tavistock, he initiated an organizational research project at the Glazier Metal Company in 1947, where numerous aspects of Glazier's organization and structure were researched. Even after he left Tavistock in 1952 he continued the research project until 1977 and his findings (some emanating from projects spanning up to 25 years) culminated in the concepts that he later called the Stratified Systems Theory. In 1965 he joined Brunel University to head up the newly formed School of Social Sciences and later directed the Brunel Institute of Organization and Social Studies (BIOSS). Jaques has also worked with the National Health Service, the Church of England, the Civil Service Selection Board in England, Conzinc Riotinto of Australia Ltd, a mining corporation in Australia which later became Rio Tinto Limited and the US Army Research Institute in the United States. However, Jaques is best known for his research on the term he coined, midlife crisis[138] [139]. Jaques uses the depth and

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[138] Jaques, 1965. Jaques coined the term "midlife crisis" in his 1965 paper "Death and the Midlife Crisis". He had studied the working patterns of over 300 extremely gifted writers, painters, composers, poets and sculptors. He noted that the later work of these geniuses differed significantly to their earlier works and that their productivity was reduced. He referred to the later works as "sculpted creativity" to emphasize the reduced spontaneity but noted that the product so created was more mature arguing, for example, that the best works of Bach were conceived in midlife. Based on

length of his research as one of his means to refute his detractors.

Jaques is dismissive of the "raft of panaceas, gimmicks and unworkable ideas [that] has accumulated over the years in the attempt to tackle the steadily mounting problems of bureaucracy."[140] These panaceas and fads include re-engineering programs, developing learning organizations, finding and defining competencies, self-managed teams, dual career ladders and new organizational forms such as matrix, organic, ecological, etc. He argues that they have never worked nor will they ever work because the solutions proposed are bereft of sound concepts and principles and are over-simplifications and distortions of complex problems, lacking precision in their definitions. These gimmicks have become slogans and exhortations for excellence and more trust, but lack a theoretical basis and gloss over their inadequacies by proclaiming that they are not theoretical. Goold and Campbell[141] agree with Jaques assertion stating that in most instances organizational design is neither an art nor a science but an oxymoron. They argue that organizational design is a morass of political haranguing, power plays, personality conflicts, grandstanding and numerous compromises often resulting in a more unwieldy and less strategic design. Despite many senior managers being aware of the sub-optimal functioning of their organization they desist from influencing the structure as they are either unsure of what to do or as they take all these variables into consideration they deem the challenge too complicated and rather frustratedly leave the structure to evolve haphazardly over time, sacrificing initiative, flexibility and collaboration which could yield even greater opportunities for the organization. Goold and Campbell further argue that complex structures such as matrix organizations fail due to uncertainty about responsibilities.

Nevertheless, as Kleiner[142] notes, a further criticism is that Jaques' managerial

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this and other similar observations he concluded that people in their mid-thirties undergo crises as death becomes more imminent. Midlife crisis was popularized by Gail Sheehy in 1976 in her bestseller, *Passages: Predictable Crises of Adult Life*. Whereas researchers such as Levinson (1978) and Ciernia(1985) were able to corroborate the existence of a midlife crisis, albeit at a different age, other researchers such as Shek (1996), Kruger (1994) and McCrae and Costa (1990) have found little evidence to support a pervasive midlife crisis. There seems to be agreement that midlife is a time of transition but there is disagreement as to whether this is a crisis.

[139] Jaques is also known to other organizational theorists. For example, Weick quotes Jaques (1951) definition of culture in *Sensemaking in Organizations*.

[140] Jaques, 1996

[141] Goold and Campbell, 2002

[142] Kleiner, 2001

accountability hierarchies is the epitome of bureaucratic rigidity. At most there are eight management levels without ambiguous chains of command and where staff relationships are well-bounded, i.e. the subordinate, the manager and the manager once removed (the manager's manager) all have clearly defined roles. There are two forms of defences used by Jaques and his supporters in addressing this criticism. Firstly they point to companies such as United Stationers that subscribe to and have implemented the managerial accountability hierarchies approach and argue that their employees have a sense of belonging because the structure is trustworthy. Secondly, Jaques criticizes widely accepted ideas such as the notion that effective managers' should not have more than six subordinates. In criticizing this idea, Jaques points out that the idea is neither founded in fact nor in theory and was originated by an Italian management expert named Graicunas[143] in the 1920s. The limitation of span of control is the number of immediate subordinates that a manager can effectively coach and judge their personal effectiveness. Span of control decreases as the variability of the conditions and the absences of the manager increase. The promulgation of small spans of control creates ineffective bureaucracies with excessive levels, resulting in the red-tape-ism that organizations seek to avoid.

In a general criticism of hierarchies, Fredrickson[144] notes that lower-level members in a highly centralized organization are exempted from important decision making and could thus ignore important information that could be useful to top management teams. Furthermore, as Shank et al.[145] point out even if the importance of the information is understood and appreciated, it nevertheless reaches top management filtered and diluted, sometimes rendering it useless. Schwenk[146] also points out that management teams of centralized organizations tend to look and accept *a priori* information that is aligned to their beliefs and preferences. This then results in a reinforcement of past actions and perspectives[147]. Similar criticisms to this have led to the continued proclamation of the unsatisfactory and unsuitability of the hierarchical model to the current and coming information age. Jaques' retorts to such criticisms

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[143] F Nichols has pasted a summation of the development of Graicunas' theory at http://home.att.net/~nickols/graicunas.htm. Jaques refers to Graicunas as an Italian, whereas Nickols refers to him as a Lithuanian based in Paris. Bedeian (1974) provides a biographical note on Graicunas addressing, amongst other things, his origin.

[144] Fredrickson, 1986

[145] Shank et al., 1988

[146] Schwenk, 1984

[147] Straw, 1981

are his oft stated refrain that hierarchies have never been soundly organized. Jaques argues that there is no further need for a new type of organization to replace managerial accountability hierarchies, but rather that the managerial accountability hierarchies is the one and only type of organization within which associations of any kind can employ people. The challenge is to use the managerial accountability hierarchies requisitely utilizing the management practices he has outlined.

Morgan has been quoted as saying that Jaques idea is a good one albeit outdated and belonging to the industrial age[148]. What Morgan has chosen to ignore however, is that the managerial accountable hierarchy is a knowledge structured entity. It is designed on layers of increasing mental processing, which when verbalized becomes knowledge. With its knowledge structural make-up the managerial accountability hierarchies is as current a structure as people who work in it. In fact, while Morgan dismissed Jaques' ideas, Craddock[149] points out that Nonaka and Takeuchi[150] attributed the key aspect of their theory of the knowledge-creating company to Jaques[151]. Furthermore Craddock notes that the early work of Weick, including his PhD dissertation, confirmed Jaques' equity theory, the forerunner of Stratified Systems Theory. In fact, Weick saw equity theory as being derived from dissonance theory.

Jaques states that the field of management science is a conceptual swamp, where there is "not one single unequivocally defined concept in the whole field."[152] He likens this "conceptual Babel" [153] to 15th and 16th century alchemy, where the "gimmicks are like the search for the philosopher's stone which would change dross to gold." [154] While most terms Jaques and Cason use have been precisely defined, Jaques concedes that

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[148] Kleiner, 2001. Morgan's disdain for this idea is not surprising. One could easily argue that Morgan's intense dislike of anything resembling scientific management means that he is likely to dismiss Jaques ideas. In Images of Organization, his greatest vitriol is reserved for scientific management and Frederick Taylor himself. This is how he describes Frederick Taylor: "Frederick Taylor, the creator of "scientific management," was a man totally preoccupied with control. He was an obsessive, compulsive character, driven by a relentless need to tie down and master almost every aspect of his life…scientific management was the product of the inner struggles of a disturbed and neurotic personality…anal-compulsive type of personality…"enemy of the working man"…Taylor had a productive neurosis!...a crank"

[149] Cradock, 2004

[150] Nonaka & Takeuchi, 1995

[151] Jaques, 1979

[152] Jaques, 1996

[153] Jaques, 1996

[154] Jaques, 1996

their terminology for orders of information complexity (gestural, pre-verbal…universal) are improperly bounded and defined. However, since their research has been confined to only two orders (verbal symbolic and abstract conceptual), they have been able to avoid the problem by describing the differences.

After Jaques has presented his findings and assumptions, and defined his most controversial ideas (i.e. relating levels of organization and complexity with time-span) in objective, repeatable ways, he challenges all to test his findings and conclusions. He is confident enough that all tests will corroborate his work that he states there is "one, and only one, requisite pattern of hierarchical structuring; that is to say, you can use any structure you like for your organization as long as you use the one I… describe!"[155]

Jaques addresses the critical question of why there hasn't been more widespread use of his Stratified Systems Theory by noting that currently levels have been organized according to pay and status rather than getting work done and thus changes are met with vigorous resistance by those in the more prestigious roles. He further notes that incorrect managerial beliefs such as determining the appropriate span of control are firmly entrenched and are reinforced by academics and consultants who despite knowing that the theories are untestable nevertheless propagate them.

As Kleiner[156] notes, if Jaques has deciphered the code that distinguishes between future business leaders, middle managers and coalface workers there remains potential for misuse of the methodology resulting in abuse, stereotyping, discrimination and mistrust. However, used correctly then the resultant requisite hierarchy will enhance organizational efficiency and hence increase organizational sensemaking.

## 2.8 Chapter Summary

Jaques has argued that managerial organizations play a prominent role in our lives. However, they have been poorly assembled and consequently have made effective work unnecessarily difficult. His view is to fix the organizational structure, arguing that there is only one way to do that, namely through the implementation of a total requisite organizational accountable managerial hierarchy.  Whole implementation of the system should eliminate problems such as excessive bureaucracy created by too

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[155] Jaques, 1996
[156] Jaques, 1996

many managerial layers, undefined cross-functional working relationships, false concepts of leadership and unclear managerial accountability and authority. Ultimately the culture of the organization will be transformed, trust will be enhanced, transparency increased and the desired organizational behaviours will be elicited once the structure is requisite.

Once an association has been constituted and has given an organization its mandate and the mission has been established, the first step in creating this universally-applicable organizational system is to ensure a requisite structuration of accountable managerial layers. These layers are created in such a way that managerial processes that include personal effectiveness appraisals, context setting, just-in-time and just-in-quality parameters task assignment, coaching, mentoring, career development, entrenchment of organization wide values and symbolic leadership are entrenched. In such a system managers hold immediate subordinates accountable for their own personal effectiveness in getting work done and for the output of their subordinates. Furthermore work and accountability cascades down successive levels, and a system of organizational layers or strata is formed.

However, the single most critical factor in establishing the managerial hierarchy though, is time horizon. Time horizon is a determination of how far into the future one can plan and carry out the plans to realization. So, within each role in a hierarchy there are maximum completion time targets for the longest tasks. These completion time targets are referred to as time spans and give rise to the hierarchical levels of the managerial accountability hierarchy. Each hierarchical level has a corresponding information complexity order and a mental processing style. Jaques argues that there are five orders of complexity of information, namely pre-verbal, concrete verbal, symbolic verbal, conceptual abstract and universals. The pre-verbal and concrete verbal orders are applicable to infants, children and mentally ill adults. Most working age people fall is the symbolic verbal order hierarchical level. This order encapsulates the four lowest hierarchical strata in Jaques formulation, with more people congregated at the lower strata. The four highest strata in organizations are found in the conceptual abstraction order. The universal order is rare to find in organizations and people belonging to this order are the geniuses of the world such as Marx, Einstein, Mozart, etc. Within each order of information complexity starting at the symbolic verbal, there is a quartet of mental processes styles namely declarative, cumulative, serial and parallel. In this manner the hierarchy is created so that the

lowest level of the hierarchy (stratum I) has a time span of 3 months, with a symbolic verbal information complexity order requiring a declarative mental processing style. Similarly, the fifth level of the hierarchy has a time span of 10 years, with a conceptual abstract order also requiring a declarative mental processing style. Each stratum within the hierarchy has a corresponding compensation level. This has been mentioned in the thesis but not examined in detail.

Having established the managerial hierarchy a talent pool analysis of the organization's employees must be conducted so that the various roles are filled, from top to bottom, with individuals having the capability that matches each role. To determine an individual's capability one has to consider their complexity of mental processing. Complexity of mental processing is the maximum scale and complexity of the world an individual is able to pattern and construe and function in, including the amount and complexity of information that must be processed in doing so. The very highest level of work that an individual could perform currently, given that they value the work and have an opportunity to acquire the necessary skilled knowledge is their potential capability. This is a direct function of an individual's complexity of mental processing. However, the level at which an individual is currently working is their applied capability. Applied capability is also a function of an individual's complexity of mental processing but is affected by their commitment (or value they attach to their work) and the skilled knowledge they are applying.

Finally, all managers must be trained in and compelled to implement all the requisite managerial leadership practices, which Jaques defines as follows:

- *Two-way managerial team working*: regular meetings with all immediate subordinates to discuss context, plans, problems, suggestions.
- *Context setting*: Regular up-dating of the background within which the work must be carried out
- *Planning*: Presentation of alternative courses of action to deal with problems, to ensure subordinates' understanding and to get their inputs.
- *Task assignment*: Assigning tasks to ensure just-in-time and just-within-quality standards working
- *Personal effectiveness appraisal*: Judging how well subordinates are working, and discussing it with them

- *Merit review*: Periodic judgement and discussion of personal effectiveness and annual evaluation of applied capability with decision on pay level within bands.

- *Coaching*: Helping individual subordinates learn how to handle a wider range of the processes that occur within the unit, so that they may advance in career.

- *Selection and Induction*: practices for choosing new subordinates and for introducing them to the unit

- *Deselection and Dismissal*

- *Continual Improvement*

Jaques managerial accountability hierarchy is novel in a number of ways. Firstly, Jaques has introduced the concept of time as the fulcrum around which all organizational and indeed human activity hinges. Secondly he has discovered universal mental processing styles which are repeated in the five orders of information complexity. Thirdly he has developed requisite conditions for a healthy managerial hierarchy. These conditions, which include leadership practices and pay differentials associated with levels of the hierarchy, address the inhumane limitations of hierarchies. Finally, through his precise definitions and concepts he has laid a scientific platform for which his concepts may be tested. Using terminology he uses often, Jaques has cleared the murky conceptual swamp that organizational studies have often wallowed in.

# 3

# Weick's Sensemaking

## 3.1   Weick's sensemaking formulation

In *Sensemaking in Organizations* Weick[157] defines sensemaking as a process where a sensemaker is surprised by discrepant cues, which do not fit into his or her past experiences, and he or she then says or does something to give credence to the cue. These surprises increase as systems that are rational are replaced by natural ones and those in turn are replaced by those that are open. In such situations structures, processes and environments that are relatively unambiguous are replaced by those that are more and more so, hence placing a greater premium on sensemaking. Based on Leiter's[158] and Weick's work, Brown[159] rewrites this as sensemaking processes are ways of interpreting and generating meaning as individuals and groups process and diffuse their interpretation of phenomena, producing intersubjective accounts. The result of sensemaking is enactment on the social world resulting in shared, negotiated, consensually agreed, written and spoken descriptors and meanings, creating organizations and their environments[160]. The enactment (i.e. the saying or doing something) which may be reviewed by an audience or be a result of the sensemaker's socialization or both, continues as it is propagated or reviewed and is focused by the emphasis the sensemaker places on certain cues. In other words, sensemaking is a process where the seven properties of "identity, retrospect, enactment, social contact, ongoing events, cues, and plausibility"[161] are evident. To make his point Weick gives the recipe of "how can I know what I think until I see what I say?"[162] and shows that it is an example of sensemaking and includes all seven properties. Identity is

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[157] Weick, 1995

[158] Leiter, 1980

[159] Brown, 2000

[160] The amount of sharing and agreement is illusionary at times as individuals' fundamentally different viewpoints are overlooked even if individuals may assume that their perceptions are similar as Gephart et al (1990) and Lynch (1985) note. As Brown, 2000 notes, the asymmetric power relationships within groups determine the sense that is accepted, wherever there are differences.

[161] Weick, 1995

[162] Weick, 1995

discovered as one understands how and what he or she is thinking. To understand one's thinking a retrospective analysis of what was said is undertaken. Once something is said or done an object to be seen and examined is created. This is enactment. The words that are spoken and the focus thereof are a result of one's prior socialization and awareness of the audience that will audit them. Talking and reflecting on what was said is ongoing, often resulting in revisions which in turn lead to further revisions. The point of emphasis, in other words the extracted cues, are the what in the recipe and are not audited for complete accuracy but rather for plausibility and sufficiency to allow further sensemaking.

The implication and assumption inherent in the recipe is that sensemaking is a conscious and controlled process. While Gioia and Mehra[163] agree that sensemaking is a conscious process when faced with situations that are novel, surprising and have not been experienced previously, they argue that sensemaking also occurs in unconscious cognitive processes. Much of organizational life is routine and does not require conscious information processing. If unconscious cognitive processes are excluded from sensemaking then the implication is that these routine operations are nonsensical. However these routine situations are full of sensemaking as they require optimal actions and reactions in adjusting to the situation, hence their argument to include unconscious processes. Despite this "relatively arcane"[164] point, Gioia and Mehra mainly support and agree with the findings in *Sensemaking in Organizations*.

The raw materials of sensemaking are the cues, frames, and connections, where "frames and cues can be thought of as vocabularies in which words that are more abstract (frames) include and point to other less abstract words (cues) that become sensible in the context created by the more inclusive words."[165] Connecting the frame and the cue is the act of sensemaking. This connection links the past to the present as frames tend to be representations of the past and cues tend to be current. Thus all organizational sensemaking terminology (e.g. ideology, third-order controls, paradigms, theories of action, traditions, and stories) are descriptive connectors of past or present moments.

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[163] Gioia and Mehra, 1996

[164] On the whole Gioia and Mehra agreed and endorsed Sensemaking in Organizations but differed on the issue of conscious sensemaking. They did not consider this a critical difference, hence the reference to the criticism as being, in their own words, relatively arcane.

[165] Weick, 1995

As the connections are made, i.e. as the sensemaking process unfolds, problems[166] arise. These problems are either problems of uncertainty or ambiguity and the manner in which they are solved differs. Uncertainty is a matter of equivocality, i.e. selecting a preferred outcome from a number of plausible options, whereas ambiguity is a matter of understanding what options are available. However in the state of weakened resources for sensemaking, there is at times a grasping for the first available explanation since "we tolerate the unexplained but not the inexplicable"[167]. These initial explanations are heard often, lack depth and have been accepted without rigorous questioning. Moreover the initial meaning of events is linked to how we feel about the events and this initial feeling is often one of fleeing or fighting. This feeling, although lacking deep explanation, is soothing and allows one to cope. Weick and Sutcliffe refer to this stage of sensemaking that assuages the initial insecurity of the sensemaker as "superficial simplicity" [168]. This stage lasts for as long as there isn't a need for a more nuanced explanation. As soon as the initial explanation is deemed to be too simplistic or it starts to unravel and people grapple with the possibility of returning to the superficial simplicity stage then further understanding is sought and the second stage of "confused complexity" [169] is reached. In this stage people are compelled to grapple with the complexities as any inertia at this stage will paralyze the sensemaker. As people deal with these complexities they then move towards a state of "profound simplicity" [170]. Profound simplicities differ from superficial simplicities in that they have been tested mentally by the sensemaker and have a more profound meaning to him or her. Weick describes them as "simplicities that have been tested by mentally simulating their consequences, simplicities that reaffirm what it means to be a human being"[171]. In order to reach this stage one would have used the seven properties of social, identity, retrospect, cues, ongoing, plausible and enactment which form the acronym SIR COPE. This acronym is Weick's clever way of reminding one of the sensemaking properties required to cope.

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[166] GF Smith 1998 quoted in Weick describes a problem as "an undersirable situation that is significant to and may be solvable by some agent, although probably with some difficulty".

[167] E Goffman's comment from p30 of his book, *Frame Analysis*, cited by Weick and Sutcliffe, 2001

[168] Weick and Sutcliffe, 2001

[169] Weick and Sutcliffe, 2001

[170] Weick and Sutcliffe, 2001

[171] Weick, 1995

Weick and Sutcliffe[172] do not argue that these are the only stages in the sensemaking process but they do argue that these stages are part of the process people follow when grappling with the inexplicable. Jaques might ask if indeed all are capable of moving from simplified to profound simplicity. If the answer is that not all are capable of developing a more nuanced explanation, one could then develop the various cognitive levels proposed by Jaques. So perhaps instead of talking about hierarchies one could refer to levels of profound simplicity or levels of nuance. The connotations of a hierarchy are, as Jaques also concedes, red-tapes, unwieldy bureaucracy.

In this thesis however, sensemaking will be principally approached using Weick's seven properties, which are further expanded on below.

## 3.2   Weick's seven properties: Identity Construction

Self is critical in sensemaking. As people act and react to an environment, as they project themselves into the environment, they take their cues about their identities from the actions and reactions of others and the environment. For example, an organization shapes and controls the sensemaking process by the measures and incentives used for rewarding or penalizing the reporting of anomalous cues. This could lead to difficulties in confirming one's self, and thus an intentional process of sensemaking is initiated. The actions and reactions are part of one's maintenance of a positive self-conception and trying to influence the environment. Brown[173] concurs, further noting that rewards or penalties are disruptions of normal expectations, established patterns of meaning and associated behaviour whose ambiguity leads the sensemaker to evaluate the stimuli in a manner that meets their needs. The tendency of the sensemaker is to then delve creatively into their memory, embellishing the story somewhat as they attempt to give a plausible account of what is happening such that their self-esteem and self-efficacy is retained or enhanced. Furthermore this might lead to others altering their behaviours in response to the rewards, penalties and plausible story. This leads onto Weick's apt summation that perhaps "self, rather than the environment, may be the text in need of interpretation[174]."

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[172] Weick and Sutcliffe, 2001

[173] Brown, 2000

[174] Weick, 1995 refers to sensemaking as constructing and reading text, that is, sensemaking is about "authoring and reading."

In instances of inquiry sensemaking, where the inquisitors are not normally participants in the anolomous situation but are tasked with extracting sense from the occurrence, the sensemakers' identities are not directly at stake in the proceedings, as Brown[175] points out. The inquisition process is a step removed from the occurrences and as such the inquisitors are better able to lessen their personal stake in their accounts of what happened. There is though, a sense in which the inquiry team members insert themselves as subjects into the situation in accordance with their self-esteem needs during the inquiry proceedings[176].

While self is often referred to in the singular throughout *Sensemaking in Organizations*, people are a compendium of selves in accordance to the context they have defined. Thus, an African woman, for example, could be a very senior manager in a multinational organization and yet in her community could be expected to be subservient to her subordinates' subordinates, who are much older than her. The changed context requires a different identity. As Weick[177] points out, the greater the number of selves one has access to, the richer the meanings and interpretations one can impose and extract in any given situation. Moreover, with access to a greater number of selves, the likelihood of being surprised or astonished is significantly reduced even though the possibility of being confused by too many possibilities remains. It is this overabundance of possibilities that forces one to deal with equivocality. The richness in the results of dealing with equivocality could readily be construed as a capability to hold a number of various arguments at once, which is akin to Jaques orders of cognitive capabilities.

## 3.3   Weick's seven properties: Retrospect

Weick[178] notes that the focus on retrospect is perhaps the most distinguishing characteristic of the present conceptualization of sensemaking. Retrospective sensemaking is a reconstruction of the past, giving rationality, clarity and order where rationality, clarity and order may not have been present at the time of the event reviewed. Since the process is retrospective, some aspects of the past have been erased as the outcome is known. This partial erasing means that the recollection is not

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[175] Brown, 2000

[176] Banaji and Prentice, 1994 and Ring and Van de Ven, 1989, referenced in Brown, 2000.

[177] Weick, 1995

[178] Weick, 1995

an exact replication of the true events. It is also important to note that once a measure of rationality, clarity and order is attained, the sensemaking process stops as the sensemaking goal has been achieved.

Gioia and Mehra[179] agree that to some degree sensemaking is retrospective. However they further argue that sensemaking should be further expanded to include a future (prospective) sense. They disagree with the notion of conducting prospective future sensemaking in the pluperfect tense where future events are sensible only when imagined as if they have already occurred. This, they argue, is dismissing everyday phenomenological experience where possible future states and possible sequences leading to those states are considered. Prospective sensemaking is making sense of the future by "creating meaningful opportunities for the future. In a loose sense, it is an attempt to structure the future by imagining some desirable (albeit ill-defined) state. It is a means of propelling ourselves forward – one that we conceptualize in the present but realize in the future" [180]. Due to the vague, idealistic symbols and images used to represent future aspirations, prospective sensemaking tends to be more tentative than retrospective sensemaking. Despite these limitations, Gioia and Mehra argue that Weick's implied dismissal of prospective sensemaking limits sensemaking by underemphasizing prospective sensemaking. In as much as they concur with Weick in that there are difficulties in separating prospective and retrospective sensemaking, they nevertheless believe that there is some value in accounting for the differences. Finally Gioia and Mehra note that if "sensemaking were not retrospective, we would be forever incapable of making sense of our past – whether real or imagined. And if sensemaking were not also prospective, we would be forever at a loss when asked where we want to go" [181].

Notwithstanding Gioia and Mehra's arguments, sensemaking, whether recall, retrospect or prospective is mood congruent[182], meaning that people better associate with events that have the same emotional tone as what they currently feel. If an organized action sequence is interrupted for a long time then the stronger the emotional intensity. An interruption that slows down accomplishment generates anger, while that which accelerates accomplishment creates pleasure. If the

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[179] Gioia and Mehra, 1996
[180] Gioia and Mehra, 1996
[181] Gioia and Mehra, 1996
[182] Snyder and White, 1982

interruption can be bypassed then people are relieved. As organizations engage in sensemaking, they attempt to stabilize their environments to minimize those events[183] that might lead to a severe disruption of action sequence or are mood incongruent with their goal of rationality, clarity and order.

Weick also links sensemaking and organizational structure by noting that both share the retrospective characteristic. He reinforces this by citing Starbuck and Nystrom who noted that structure is itself "an artefact of postdiction, observation, and explanation"[184].

## 3.4 Weick's seven properties: Enactive

Sensemaking can be belief-driven or action-driven and it is the result of trying to more closely link actions and beliefs. If sensemaking is belief-driven then it will be noted as arguing and expecting, whereas if it is action-driven it will appear as manipulating or committing. Belief-driven forms start as premises, self-fulfilling prophecies, anticipations, hypotheses and such like. However, having said all this, Weick argues that determining whether the sensemaking process is belief-driven or action-driven is not as important as commencing the process.

The four forms, that is arguing, expecting, manipulating and committing are often coupled, e.g. arguments can lead to an agreed upon action, which could clarify the expectations and result in manipulation of a social setting. Belief-driven sensemaking is captured by the think-then-act rational mantra and action-oriented sensemaking is driven by a seemingly irrational act-then-think recipe. While the act-then-think recipe seems irrational, it could easily be thought of as seeing is believing, which for some is an entirely rational approach. It is important to note all of this is an outcome of people's own making, i.e. a result of their enactment on their environment. As Weick points out, "managers keep forgetting that it is what they do, not what they plan, that explains their success. They keep giving credit to the wrong thing – namely, the plan – and having made this error, they then spend more time planning and less time acting. They are astonished when more planning improves nothing."[185]

From an organizational sensemaking perspective, understanding the differences in procedure and outcomes of commitment and manipulation is important. Commitment

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[183] As Weick, 1995 notes, a sensible event is one that resembles a previous event.

[184] Starbuck and Nystrom 1981

[185] Weick, 2001

is focused on a single action, often requiring specific situations to occur, resulting in an orderly logic, with richness in detail, often generating even stronger commitments. Commitment focuses sensemaking on binding actions. Manipulation, on the other hand, focuses on multiple simultaneous actions in such a way that the environment is changed into something with clearer outcomes and is more manageable and comprehensible. Manipulation is a sensemaking process that generates meaningful, stable actions such as daylight savings time.

## 3.5  Weick's seven properties: Social

Sensemaking is social in that people share beliefs, values, and assumptions that encourage them to make "mutually-reinforcing interpretations of their own acts in ways that have mutual relevance."[186] The regularity of people's symbiotic interactions tends to lead to a communal understanding, behaviour and language. However, communal understanding always results in losses of unique understanding as self is sacrificed for the sake of order and control as the recipe of "how can I know what I think until I see what I say" becomes "how can we know what we think until we see what we say". At times the losses, when looked at retrospectively, may lead to richer understandings but their value is not always important for effective coordination. Thus the social property tends to be an auditing mechanism in the sensemaking process. Burns and Stalker refer to this auditing mechanism when they note that in "working organizations decisions are made either in the presence of or with the knowledge that they will have to be implemented, or understood, or approved by others. The set of considerations called into relevance on any decision-making occasion has therefore to be shared with others or be acceptable to them" [187]. The result of this auditing mechanism leads to people of similar mindsets congregating at various levels of the entities they belong to so that the reading of the same events is similar. For example Lanir, Fischoff and Johnson[188] have noted that people at the top of militaries have a more abstract, strategic broad outlook and are more prone to taking calculated risks, while those at the lowest levels tend to have a more tactical, localized outlook where boldness and exploitation of surprise is critical.

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[186] Smircich and Stubbart, 1985 cited in Weick

[187] Burns & Stalker, 1961 quoted in Weick, 1995

[188] Lanir, Fischoff & Johnson, 1988 in Weick, 1995

## 3.6  Weick's seven properties: Ongoing Flows

The complexity and transient nature of the environment we enact upon and live in, with our myriad social interactions, beliefs, physical innovations, experiences and perceptions, demands that people continuously engage in sensemaking. While time steadily and smoothly progresses, our lives are continually interrupted. Our reactions to these interruptions may vary from mild irritations to autonomic arousal (which is caused by a perceived severe disruption of an action sequence) affects retrospective sensemaking where all or few of the frames we have created collapse and we are temporarily rendered incapable of dealing with the situation we are experiencing. In this aroused state, everything becomes irrelevant and the interruption is the only focal point. In this state a leader provides a frame to help the aroused person to deal with the situation.

Thus  in order to thrive in this complex and transient world, Weick advocates thinking in verbs and not nouns as verbs denote acceptance of "life as ongoing events into which we are thrown, and less likely to think of it as turf to be defended, levels of hierarchy to be ascended, or structures to be upended."[189]  While we seek to impose an order on our environments by truncating life's flows, re-ordering the way in which things occur and manipulating society so that we can make temporary sense of events, nevertheless we cannot stop the ongoing events and so have to continuously keep making sense.

## 3.7  Weick's seven properties: Extracted Cues

Weick says that sensemaking tends to be a swift process, which is noted to have occurred only when its products are seen. The process of sensemaking itself is rarely seen unless people are observed dealing with puzzles and dilemmas. As sensemaking is happening, one must pay attention to the way cues are extracted, embellished and developed to get a greater sense of what may be occurring. These extracted cues are important in "generating a point of reference, against which a feeling of organization and direction can emerge.[190]"

The context within which the cue is extracted affects the way the cue is interpreted and provides limits for the meaning attached and the subsequent action. So, as

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[189] Weick, 1995
[190] Smircich and Morgan, 1982 cited in Weick.

Dearborn and Simon[191] have suggested, people with similar functional backgrounds will have similar perceptions. Thus limited functional diversity restricts environmental observations while increased functional diversity could enhance and enrich the collective view of the environment[192]. Contextualization brings details to the fore and links the cues thus making more sense. This process repeats itself in a cyclical manner until more coherent deductions are made. At the point that the sense maker can make a seemingly comprehensive and logical decision, the process is stopped. The starting point to get to this point is not crucial in sensemaking, since action is the goal of starting the process.

## 3.8    Weick's seven properties: Plausibility

Sensemaking is not primarily concerned with accuracy. There are a number of reasons accuracy is a secondary consideration in sensemaking. Firstly, people filter data to prevent being overloaded with data. As Weick notes, "accuracy is meaningless when used to describe a filtered sense of the present, linked with a reconstruction of the past that has been edited in hindsight."[193] Secondly, when faced with equivocality, the quick response can render all subsequent interpretations as obsolete as the fastest response enacts that environment. In a rapidly changing complex environment, one cannot hope for exactness. The decisions taken at the time are precursors for further action and further decisions, which hopefully will further audit the previous decisions taken. Accuracy, as the popular phrase, paralysis by analysis, indicates, renders the sensemaker immobile, affecting what is believed and rejected. Finally, it is also difficult to determine whether a perception, at the time of decision making, was accurate or not "because perceptions are partly predictions that may change reality, because different predictions may lead to similar actions, and because similar perceptions may lead to different actions. Many perceptual errors, perhaps the great majority, become erroneous only in retrospect."[194]

Accuracy is better replaced by stories as stories maintain plausibility, enhance coherence, embody past experiences and expectations, can be constructed retrospectively and can also be used prospectively and allow for embellishment to fit current oddities. Weick and Roberts argue that words, stories "organize know-how,

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[191] Dearborn and Simon, 1958 cited in Sutcliffe, 1994

[192] Weick, 1987

[193] Weick, 1995

[194] Starbuck and Milliken, 1988 cited in Weick.

tacit knowledge, nuance, sequence, multiple causation, means-end relations, and consequences into a memorable plot."[195] Stories are readily used to cohesively knit various divergent views and themes into collective galvanizing action. Stories are about accounts that are socially acceptable and credible and as such are valuable instruments in problem-solving, thus helping people cope with our complex world. As Bruner [196]and Orr[197] have noted, narrative skills therefore, are important in collective settings such as in organizations. Boland and Tenkasi[198] consider narration as the basic organizing principle in human cognitive processes as it is an important tool in establishing perspective within a community. Bruner further views narratives as means of dealing with the mutability of human intentions, identifying specific modes of thought through which people can collectively debate, engage in dialectics and assessment. Furthermore, Patriotta[199], using Czarniawska's[200] argument that narrating is organizing, proclaiming that one could regard an organization as a story where day-to-day equivocality is dealt with when the counter arguments between action and text unfold. Ricoeur[201] takes the debate a step further when he says that action can be regarded as text as it is subject to conflicting interpretations that can only be resolved by argument and debate.

Weick and Roberts[202] analysis of the interrelations on an aircraft carrier flight deck to develop the concept of the collective mind[203] in organizations provides a good example of combining all seven properties. The aircraft carriers are referred to as "a million accidents waiting to happen"[204] which almost never happen. The reason that there are few errors is due to heightened or heedful interrelating and increased comprehension, in other words depth in sensemaking. Weick and Roberts put it thus:

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[195] Weick & Roberts, 1993

[196] Bruner, 1986

[197] Orr, 1990

[198] Boland and Tenkasi, 1995

[199] Patriotta, 2003

[200] Czarniawska, 1997

[201] Ricoeur, 1981

[202] Weick & Roberts, 1993

[203] The issue of collective mind is important for this thesis. Weick and Roberts specifically avoids the term "group mind" which is used by Wegner, 1987 and Wegner et al, 1991, and "organizational mind" as they wants to accentuate that they are referring to individuals acting within a group, in other words the indivual mind is not lost in the collective. So while the individual contributes to the collective mind, the "collective mind is distinct from an individual mind because it inheres in the pattern of interrelated activities among manhy people."

[204] Weick & Roberts, 1993

> Actors in the system construct their actions (contributions), understanding that the system consists of connected actions by themselves and others (representation), and interrelate their actions with the system (subordination). Ongoing variation in the heed with which individual contributions, representations, and subordinations are interrelated influences comprehension of unfolding events and the incidence of errors.[205]

In other words, one's contributions is understood within the social system aboard the carrier and as those aboard go about acting out their duties, paying particular attention to cues from their own and others actions they minimize the possibility of errors. While one might have a full and exact understanding of what is unfolding, comprehension (plausibility) increases over time. Throughout the paper Weick and Roberts provide numerous examples that underscore sensemaking processes. For example, when a pilot lands an aircraft on a carrier (which Weick and Roberts argue is better viewed as a recovery) this is a social act with "nine to ten people on the landing signal officer's platform, up to 15 more people in the tower, and two to three more people on the bridge"[206]. While there is redundancy, all those people are continuously extracting cues from the situation so that if a problem arises they can wave the aircraft off. Alternatively when a pilot taxies onto a catapult for launching he is constantly reviewing the situation he has subordinated himself to for plausibility based on what he has been taught or experienced in the past. Moreover, in a situation where there are five aircraft waiting to land, with some of them experiencing hydraulic problems, another with apparent control problems and perhaps one or two low on fuel, the controller has to draw on his or her past experiences and training, interact with other participants such as the ground crew and the pilots to prioritize landing.

## 3.9   Wiley's levels

Weick also points out that there are other ways of talking about sensemaking. For example, while the above discussion of generic sensemaking has at times touched briefly on organizational sensemaking, it has generally focused on the individual

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[205] Weick & Roberts, 1993
[206] Weick & Roberts, 1993

level. In focussing on organisational sensemaking, Weick pursues Wiley's[207] argument of three levels of sensemaking above the individual level of analysis, namely the intersubjective, generic subjective and extrasubjective levels. At the intersubjective level, individual thoughts, intentions and feelings are fused into a communal sense during conversation and I is transformed into we. Generic subjectivity is an abstract level higher where the communal we, which still makes individual self important, has been replaced by a social structure where individual self is merely a follower of rules and a filler of roles and has been replaced by the generic self.[208] The last level in Wiley's formulation is the extrasubjective, where the generic self yields to a "subjectless batch of culture"[209] such as capitalism or mathematics. Organizational forms are seen as the link between the intersubjective and the generically subjective. In other words, organizations are seen as social entities that fuse the routines of generic subjectivity with the interpretations of intersubjectivity through ongoing communication. This ongoing communication either reinforces the link between the interpretations and routines or it results in new interpretations and routines being sought and generated. In other words the ongoing communication is a sensemaking exercise. The routines and interpretations are also modified somewhat when people are replaced or substituted for one another within the organization. This is expected as identities have to be reconstructed. Thus, there is always a loss of common understanding with these changes, but the effect of these changes varies in importance for effective co-ordination.

To further reinforce the definition of organizations as the link between the intersubjective and the generic subjective, as well as to emphasize the social nature and communicative aspects, Weick quotes a number of organizational definitions. For example he quotes Resnick, Levine & Teasley's definition of an organization as a "network of intersubjectively shared meanings that are sustained through the development and use of a common language and everyday social interaction." [210] Weick then reinforces the social aspect of this definition by highlighting the words network, intersubjectively shared meaning and common language contained therein.

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[207] Wiley, 1988

[208] Examples where generic subjectivity is emphasized is the utterances of the African National Congress (ANC) leadership which sometimes argues that while they may hold a different view on a specific subject to that of their political party they are nevertheless compelled to tow the party line. It is the party and not the indiciduals in leadership that are emphasized.

[209] Weick, 1995

[210] Resnick, Levine & Teasley, 1991

Furthermore, the definition implies that one's behaviour is then shaped and audited by that of others irrespective of whether they are present or absent. In another example, Weick quotes Smircich and Stubbart's definition of an organization as "a set of people who share many beliefs, values, and assumptions that encourage them to make mutually-reinforcing interpretations of their own acts in ways that have mutual relevance"[211] to give further support to the idea of an organization as a bridge between the intersubjective and the generic subjective. In yet another example, Schall's[212] description of an organization as an entity that comes into being and is maintained by continuous communication is used to reinforce the importance of the communicative aspect. This communication is the sharing and exchanging of interpretations of intersubjectivity and communal understandings of generic subjectivity. March's observations that organizations are as much about intellect, interpretation and metaphors of theory as they are about decision-making and coping with the pervasive ambiguity within our environment is yet another argument used to drive home the point that organizations are links between the intersubjective and the generic subjective.

Hage, Nameth and Straw interpret an organization as a link between the dominant tension of innovation (which is intersubjective) and control (which is generically subjective). These dominant tensions must be managed. The intersubjective forms that create, preserve and implement the innovations that arise from intimate contact must be balanced by the generic subjectivity practices that focus and control energies of that intimacy. While these controls, through incentives and measures, are the invisible cords that bind organizations they nevertheless affect sensemaking. It is thus the manager's duty to minimize negative affects of excessive control. Peters is of the opinion that creativity will be lost when face-to-face interactions are replaced by one-way interactions such as when computers are used excessively, i.e. when what he calls "management by screening around"[213] is the dominant form, replacing "management by walking around."[214]

Shotter[215] refers to the role of manager in managing these tensions as that of

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[211] Smircich and Stubbart, 1985
[212] Schall, 1983
[213] Peters, 1992
[214] Peters, 1992
[215] Shotter, 1993

conversational authors, where the manager's principal task is to formulate the problem situation out of incoherent and disorderly events and framing it by articulating current actualities and pointing out further possibilities. All of this is done by continually engaging in conversation with the stakeholders involved. To reinforce this point, Weick draws on Thayer's[216] argument that a leader is a sense-giver who guides his/her followers by telling them of the world as it might be rather than as it is and thus presenting a different view or face. The result of these managerial and leadership practices is a closer linking of the individual's character and the organization's image. Once this happens, then the individuals are motivated to preserve the positive aspects of the organization's image as Dutton and Dukerich [217]argue.

## 3.10  Inquiry sensemaking

Not all sensemaking is oral. To further unpack this, an analysis of inquiry sensemaking is presented. Brown[218] examines inquiry sensemaking by analysing the Allitt Inquiry report on attacks on children at Grantham and Kesteven Hospital in the UK.

The Allitt Report was an independent tribunal initiated in May 1993 by the United Kingdom's Secretary of State for Health and was ultimately produced to assuage the anxiety felt by the general public after a nurse, Beverly Allitt was successfully prosecuted for the murder of four children, attempted murder of a further three children and causing grievous bodily harm to six more children[219]. The inferences drawn by the public and the medical profession was that hospitals were not the safe havens they were purported to be and medical staff were not benevolent, gentle and compassionate participants. In other words since the deaths had disrupted the public's normal expectations and the efficacy of established patterns of meaning and associated behaviour, there was a need to "'make the unexpected expectable', to comprehend the casual relationship such that they can be 'predicted, understood, and

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[216] Thayer, 1988

[217] Dutton and Dukerich, 1991

[218] Brown, 2000

[219] The Allitt report explained how children collapsed and died unexpectedly. Initially the nurses and doctors attending to the children, although thinking of the deaths as unusual, nevertheless explained the deaths on the basis of each child's medical condition. However as more children died and collapsed the initial bewilderment became alarm. Most tests conducted did not reveal anything untoward. It was only when a blood test revealed that a child had been injected with insulin that police were called in to investigate and Allit was arrested.

possibly controlled'"[220].    In this instance though, what was essentially an opportunity for deep sensemaking, was at times an exercise in power to help a society "cope with mysterious events and broker anxiety by enticing [it] to engage in fantasies of control"[221].

Brown set about analyzing the depth of sensemaking within the report. There were a number of issues raised which pose challenges to sensemaking that need to be addressed. The first issue in this instance was the use of a public inquiry as a sensemaking tool. Drawing on Gephart's[222] and Shrivastva et al's[223] work, Brown refers to public inquires as "ceremonials that assemble explanatory accounts of the events under scrutiny from the statements of witnesses"[224] as long term organizational responses to crises. In effect though, these public inquiries are "exercises in power, where power is defined as the capacity to extend hegemonic reach by suppressing or overwhelming competing accounts such that one's own interpretation dominates"[225]. This power is exercised to legitimize organizational and institutional assumptions and perceptions of socially acceptable norms, values and beliefs. The goal of the report produced by this inquiry team (made up of a retired professor of clinical neurology, a former senior civil servant and a director of quality of children's hospitals) was to persuade the public to accept what may have been contestable interpretations of events, in other words to view the constructed narrative as plausible, authoritative and verisimilitudinous. While the public may have initially accepted the findings, Brown shows the superficial and arbitrary manner in which the Allitt inquiry team used to understand the events and to ultimately apportion blame to an individual to minimize further investigation and interpretation that may lead to undesired conclusions. Specifically, Brown argues that Allitt was presented as outwardly normal so that the failure to detect Allitt's anti-social behaviour sooner was plausible. This approach was used to mitigate any criticism of doctors, nurses and administrators working at the hospital and to maintain the legitimacy of the medical profession. In short, as Brown notes, sensemaking is "affected by conventionalized notions regarding what constitutes reasonable and adequate description of human social behaviour".

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[220] Brown, 2000
[221] Brown, 2000
[222] Gephart, 1984
[223] Shrivastva et al, 1988
[224] Brown, 2000
[225] Brown, 2000

The second challenge presented by the Allitt inquiry report is the investigation of sensemaking processes using textual data. Textual data is often taken to be reasonably true accounts of the events described. However, as was evident in the Allitt report, text can sometimes be the result of strategies of selection and omission of information using rhetorical devices to underline a particular understanding of circumstances. Text is a "monologue, a univocal representation that omits, marginalizes and selectively highlights in its suppression of interpretive plurality"[226]. As Brown points out, organizational studies scholars have recognized sensemaking as narrativization and have shied away from written texts, possibly because they have understood text to be a power effect. Dearborn and Simon[227], Eihorn and Hogath[228] and others[229] have noted sensemaking distortions that result due to incomplete or inaccurate information processing. Argyris and others have noted similar distortions due to ego-defences. Further sensemaking distortions are covered by Sternberg's[230] twenty impediments to the full realization of intelligence. These impediments are:

1. Lack of motivation

2. Lack of impulse control [impulsive behaviour that detracts from intellectual work]

3. Lack of perseverance and perseveration [giving up too easily and continuing to work on a problem long after they should have quit]

4. Using the wrong abilities

5. Inability to translate thought into action

6. Lack of product orientation

7. Inability to complete tasks and to follow through

8. Failure to initiate

9. Fear of failure

10. Procrastination

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[226] Brown, 2000

[227] Dearborn and Simon, 1958

[228] Einhorn and Hogarth, 1986

[229] Kahneman et al, 1982, Levitt and March, 1988, Hedberg, 1981

[230] Sternberg, 1986

11. Misattribution of blame [blaming others for own mistakes]

12. Excessive self-pity

13. Excessive dependency

14. Wallowing in personal difficulties

15. Distractibility and lack of concentration

16. Spreading oneself too thin or too thick

17. Inability to delay gratification

18. Inability or unwillingness to see the forest for the trees

19. Lack of balance between critical, analytic thinking and creative, synthetic thinking

20. Too little or too much self-confidence

The Alitt report analysis highlights that some sensemaking artefacts, such as this that report, may be "public discourse myths, which help modern societies cope with mysterious events and broker anxiety by enticing us to engage in fantasies of control."[231]

In order for the report to appear verismilitudinous it had to concur with current sensemaking theory. If there were differences in sensemaking theory and the report then either sensemaking theory would be questioned or the report would not be perceived as an authoritative analysis of the events. An example of the agreement between theory and the report is given when the inquiry team outlines a pattern that was discovered by the police. Allitt was left alone with a child and then reports unusual behaviour in the child. The other medical staff come to her assistance but at that stage the child has collapsed. The child would either die after collapsing or if they were transferred to another hospital they would recover. The question then was whether this pattern should have been noticed by the medical staff. The doctors noted the 'unusual' collapses but attributed these to random occurrences exacerbated by a lack of resources.  The fact that no pattern was noticed is in line with current sensemaking theory and hence the medical staff could be absolved. Sensemaking theory suggests that for a pattern to be noted, the continuous flows must be segregated

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[231] Brown, 2000 based on the work of Boje et al, 1982, Bormann, 1983 and Gusfield, 1981

into moments and cues must be extracted from those moments[232]. For the cues to be extracted there needs to be an interruption of expectations[233]. However, not all interruptions will lead to a search for a pattern. For the behaviour to warrant understanding it needs to be labelled as a potential problem which cannot be assimilated to expectations[234]. In the Allitt case, one of the doctors puzzled over the initial deaths, could not connect the two and therefore ignored the rest of the deaths until such time that a post mortem revealed high levels of insulin in one of the dead children and police were called to investigate. However, one of his colleagues, who was thought to be unpredictable and was wont to fanciful ideas, indicated at a conference that someone was harming children in the hospital. This seems to have been discarded as the rest of the staff accredited the deaths to infections and lack of resources. So, once more when the satisficing tendencies of all but one of the doctors were met, in other words when superficial simplicities were articulated, the necessity to further probe was discarded. Brown also notes that the report indicated that the staff, even when faced with prima facie evidence, was reluctant to use words like "murder" and "murderer". In this instance, when one of the children was discovered to have excessive insulin in their blood, the staff expended energy in trying to determine if he had not been harmed accidentally. The report also noted that meetings, which Weick refers to as "the infrastructure that creates sense",[235] were rarely held with more than three people and thus flawed partial understandings and arguments remained as information was not adequately shared. Since there was congruence between the Allitt report and sensemaking theory, the report seemed authoritative.

## 3.11  Criticism of Weick's sensemaking

Further to the challenges above, criticism of Weick's work generally deals with whether sensemaking has a prospective element, which has been dealt with previously, whether sensemaking is metaphorical and the concerns of excessive negativity raised by positive psychologists. These last two elements are discussed below. There is another issue that Brown[236] raises, namely whether Weick's textual

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[232] Weick, 1995

[233] Fiske & Taylor, 1991

[234] Bruner, 1986

[235] Weick, 1995

[236] Brown, 2000

data is a wholly true account of the events described or whether it is part of an authorial strategy of selection and omission to emphasize a point.

Weick addresses the criticism of positive psychologists that his work on the collapse of sensemaking in organizations is riddled with adversity, error, failure and pathology, in other words, negativity by noting that his work is partly about tragedy as some of the facets and insights of his work contribute to positive organizational scholarship. For example in examining a tragedy such as a bushfire there are numerous virtuous issues such as a fire fighter sacrificing his life in an attempt to save others and irrespective of whether they are successful or not pride is reaffirmed in the heroic identity many hold of the fire fighting corps. Alternatively new escape routes and recovery pathways are created by other fire fighters and volunteers to assist those trapped by heavy smoke and fire, or communications are maintained over radios to forestall panic. Weick does concede that a clinging to optimism in such dire situations allows a sense of organization which gives hope to sensemakers and shields them from possibly more sinister underlying cues which could lead to a greater sense of uncertainty and panic. However this is a superficial and temporal state and Weick argues that if the search for more cues ceases then the threat of the disastrous situation remains. Even if the tragedy is cloaked positively it nevertheless remains a tragedy and it is imperative that further cues continue to be sought so that the necessary pre-emptive actions may be taken to minimize further tragedies in future. The very fact that one is talking about fatalities and failures suggests that there is more to be learnt from the tragic events and perhaps there is more to be learnt than the initial truncation after reaching a level of plausibility that reassures people to minimize chaos.

Weick makes it clear that sensemaking is not metaphorical. This is a direct retort to Morgan's[237] assertion that sensemaking is a metaphor. Sensemaking, according to Weick, is about making sense of something and must be understood literally and not metaphorically.

## 3.12  Chapter Summary

Sensemaking according to Weick is a theory of cognition, communication and behaviour that is:

1.  Grounded in identity construction

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[237] Morgan 1997. Morgan used the enactment property of sensemaking in building his case of culture as an organizational metaphor.

2.  Retrospective

3.  Enactive of sensible environments

4.  Social

5.  Ongoing

6.  Focused on and by extracted cues

7.  Driven by plausibility rather than accuracy.

These seven sensemaking conditions are necessary conditions for the sensemaking process. Whenever the normal flow of events is interrupted by surprising, ill-fitting cues, this is an occasion for sensemaking to occur and identity construction begins. . The discrepant cues seen are noteworthy only because they do not corroborate past experience. In other words, these cues are ill-fitting when looked at retrospectively. The referral to past experience is an important identity construction process and those who have access to multiple selves are less likely to be surprised by these cues. Moreover, in organizations for example, reporting of unusual events is enforced through incentivizing those who report unusual events and penalizing those who do not report such events thus reinforcing one's sense of self.

Retrospective sensemaking is however not a true reconstruction of the past. Often elements are partially erased to better attain a greater sense of order, clarity and rationality. This selective acceptance of cues is a means to deal with equivocality. Once order, clarity and rationality are achieved then the retrospective process ceases and the sensemaker experiences relief, pleasure and a sense of accomplishment. Where the feeling of order and clarity is delayed or not achieved then emotions such as irritation, anger and rage are experienced. The emotional being of a sensemaker is important as recall and retrospect tend to be mood congruent and people recall events having the same emotional tone as what they currently feel.

While the focus on the retrospective aspect of sensemaking is the most distinguishing characteristic, it is not enough to just recall prior experience. Sensemaking also requires an enactive aspect and Weick argues that the object to be seen and inspected is created when one does or says something. He further points out that what is seen is usually the outcome of the sensemakers prior actions; it is something of their own making. Now, enactment can begin with beliefs or actions. Beliefs are forms of arguing and expecting while commitments and manipulations represent sensemaking

that commences with actions. Beliefs and actions are related and sensemaking is the process of tying them more closely together, resulting in meaning. For example arguments can lead to consensus on the action to be taken or committed actions can uncover accepted justifications for their occurrence. Whether action is a result of beliefs or actions is secondary. Of principal concern is that actions commence.

Sensemaking is also social in that one's actions are a result of who socialized them, how they socialized the person and the anticipated audience that will assess the conclusions reached. In organizations people of varying beliefs, values and assumptions make mutually-reinforcing interpretations so that activities become more mutually defined, predictable and subject to a common understanding and language. The interpersonal, interactive and interdependent quality of organizational life audits the simplifications sensemakers make and the perceptions they hold as they act on their environment. Moreover these interpersonal qualities ensure that people with similar beliefs and tendencies to act congregate on similar rungs of organizational structures.

Senesemaking, however, is not a once off event. It is ongoing and it is reflected on after the events have been concluded. Sensemaking is spread out over time and competes on an ongoing basis against other projects. Sensemaking has to be ongoing through necessity as organizations are continually in a sense of incessant tension. These tensions take many forms but perhaps the most significant are between the past, present and future and could manifest themselves as a tension between innovation and control. This is not to suggest that an organization must choose either innovation or control. Oftentimes both are required for the long-term sustainable future of an organization. Rather, the tension is often one of where on the agenda either innovation or control need to be placed. The stability level of the environment in which an organization functions and its current social and economic status usually dictates the agenda.

As the sensemaking process commences and unfolds tangible outcomes are generated. These are the extracted cues that form the building blocks of sensemaking. Extracted cues are familiar structures that form the basis for people to understand what is occurring. However for richer sensemaking to occur the extracted cue, its context and the relationship between the two must be defined. The frame, which is the structure of the context, affects the way that an extracted cue is interpreted. As Weick puts it, it is

a cue within a frame that makes sense, not the cue alone or the frame alone. In other words, sensemaking needs a frame, a cue and a connection between them. This connection binds the past to the present as frames tend to be past moments of socialization and cues are present moments of experience.

Sensemaking is about plausibility rather than accuracy. There are a number of reasons for this and some include the following. Firstly, sensemaking is swift and often all that is seen are its products rather than the process. Quick responses shape events and influence the environment rendering speed secondary. Secondly, sensemaking is forgiving in that any point of reference will do, so long as the cognitive structure is stimulated, leading to action towards a sense of order. Thirdly, people filter and distort to avoid cognitive dissonance. Fourthly, whether something is accurately depicted or not is often difficult to predict. Finally, accuracy tends to paralyze as captured in the phrase paralysis analysis. Although accuracy is not critical in sensemaking, there are instances when it is a necessity. In those specific situations, accuracy is critical only for short periods of time and with respect to specific questions.

In effect sensemaking is about creating good stories. Good stories are plausible and coherent, reasonable and memorable, embody past experiences and future expectations, are constructed retrospectively but can be used prospectively, capture feelings and thoughts, allow for embellishment and resonate with other people. In short, good stories encapsulate the seven properties of sensemaking. Whether the story is orally given, as preferred by Weick, or is written down as in an inquiry report, it needs to be socially acceptable.

There are other ways to describe sensemaking. One of these ways is to use Wiley's levels of analysis. Wiley argues that there are three levels of sensemaking above the individual. These are the intersubjective, the generic subjective and the extrasubjective. At the intersubjective level, individual thoughts, feelings and intentions are merged to transform "I" into "we". The intersubjective level is the last level of selves. The generic subjective level is of a higher abstraction where concrete selves to not exist but rather structures are created where roles and rules are filled and followed in an interchangeable manner. The highest level of abstraction is the extrasubjective, which is associated with symbolic reality as embodied is subjects such as mathematics or systems such as socialism.

# *4*

# Bridging Stratified Systems & Sensemaking Theories

## 4.1   Organizational links of SST and Sensemaking theory

A common feature of sensemaking and requisite organizational theory articulated by both Weick and Jaques is that both are system theories discussing organizations, although from different vantage points. Jaques Stratified Systems Theory, SST, or Requisite Organization theory links individual capability, inherent work complexity, higher organizational structure levels and managerial leadership practices. Weick's sensemaking theory uses the seven properties of identity construction, retrospective analysis, environmental enactment, socialization, ongoing determinations, a focus on extracted cues and plausibility as a template to determine when a sensemaking process has occurred. In this section, an attempt is made to address each of these theories in terms of the other, noting areas of both agreement and contention.

## **4.2   Organizational theory and the sensemaking paradigm**

Weick argues that a theory of organizations characterizing the sensemaking paradigm does not exist. However, sensemaking can become a central focus in organizational structuring and its environment if approached from different angles. For example, if social constructions are institutionalized into agreed upon behavioural norms, then sensemaking is linked to institutional theory by the norms. Sensemaking becomes the feedstock for institutionalization. Nevertheless, Weick cautions that sensemaking students are sceptical of institutional ideologies that assume a homogeneity that is applicable to larger sets of people than has been shown[238].

Be that as it may, organization and sensemaking processes are cut from the same cloth as organizations impose a sense of order and clarity by simplification, connection and minimizing deviations. Sensemaking is a similar process of creating something

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[238] This is based on Zuker 1991 study.

tangible by filtering, framing and reconstructing the subjective. Organizations structure and are structured by sensemaking processes. Weick further connects sensemaking and organization structure by noting that retrospect, a key property of sensemaking, is a key component that leads to structure.

## 4.3    Organizational forms

In discussing organizational forms and their impact on sensemaking, Weick states that organizations are "loosely coupled systems in which action is underspecified, inadequately rationalized, and monitored only when deviations are extreme."[239] Jaques agrees with this assessment, further noting that most organizations have "too many layers, undefined cross-functional working relationships, false concepts of leadership [and] unclear managerial accountability and authority"[240]. He also notes that very often the work at the top of organizations is often underestimated, resulting in appointments of patently under qualified leaders. Furthermore, management experts and theoreticians have promulgated numerous simple-minded possible solutions to these problems, creating cynicism to any well thought out proposal. Apart from harming the morale of the organizational managers and other employees, such systems have a deleterious impact on rich sensemaking and further militate against achievement of the stated goals of the organization. Jaques' proposed managerial accountability hierarchy, is designed to reduce the bureaucratic[241] behaviour by matching individuals' potential and applied capabilities with the level of complexity of the task.

Weick remains wary of bureaucracies, concerned that "participants in bureaucracies inherit explanations of what they are doing rather than construct them continually."[242] These inherited explanations are not synchronized with current events as they tend to be chronically out of date[243]. Being out of date, the meanings within a bureaucracy cannot build current justifications for newer actions and so bureaucracies themselves make less sense. Jaques counter argument though, is that the managerial

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[239] Weick, 1995

[240] Jaques, 1996

[241] Jaques is aware that the managerial accountability hierarchies is referred to as a bureacrcy, and he does concede that it is a bureaucratic hierarchy. His contention though is that the managerial accountability hierarchies is not mired in the "red-tape-ism" that bedevils "anti-requisite" structures.

[242] Weick, 1995

[243] This is a typical behaviouralist approach. Morgan has also argued that while the idea of a Requisite Organization is a good idea it is dated, and irrelevant for the modern information age.

accountability hierarchies is potentially a creative human institution if properly understood and applied. The managerial accountability hierarchies is not about centralization or decentralization, but is concerned with assigning the right tasks to the right levels to create clear accountability and authority relationships within organizations[244]. Furthermore if the subordinates' contexts are continually updated as required in managerial accountability hierarchies then the hierarchies are continually brought up to date. The fact that a manager is not executing his role (i.e. updating the context for his subordinates) does not render the managerial accountability hierarchies obsolete. Jaques argues the practicality of his thesis by pointing out organizations that have achieved success in applying the system[245]. Others, who have also applied the system, whether as recommended by Jaques or in a modified form, have also reported a measure of success[246]. Jaques defence of the managerial accountability hierarchies is reminiscent of Max Weber's statement that the bureaucratic structure is "superior to any form in precision, in stability, in the stringency of its discipline and its reliability. It thus makes possible a high degree of calculability of results for the heads of the organization and for those acting in relation to it[247]." If the Weberian assertion is correct and accurately defines the managerial accountability hierarchies, then the managerial accountability hierarchies enhances sensemaking.

Citing Starbuck and Milliken, Weick raises another concern about the political struggles of organizational design, noting that people with expertise in tasks that are new to the organization tend to agglomerate at the lower rungs of hierarchies and tend to interpret events in terms of these newer tasks while gravitating towards changes that will lead to promotion opportunities and bring their expertise to the fore. People

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[244] By arguing that centralization or decentralization is not an issue with regards the managerial accountability hierarchies, Jaques has eloquently recused the managerial accountability hierarchies from criticisms of centralization as articulated by authors such as Fredrickson (1986) and Schwenk (1984), Staw (1981) and Shank et al. (1988). Fredrickson argues that since lower-level employees are omitted from important decision making they may ignore or fail to note important cues with organizationwide ramifications. Shank et al. note that even if the information was passed on the amount and detail of that information will be altered in the transmission process and sometimes rendering it useless. Schwenk then notes that even if the information were useful when it reached the upper echelons of centralized management only information that confirms and reinforces existing expectations and beliefs could be accepted. Such a situation increases commitment to past actions and reinforces old worldviews.

[245] It is unclear whether there has been a quantitative improvement in the companies using SST such as Rio Tinto and United Stationers. There are qualitative improvements attributed to these companies. These include increasing trust, creating a greter sense o belonging, providing greater operational clarity, etc.

[246] For example, in Human Organization, successes at Unilever outlined. The application there though was a slight modification of Jaques' SST, where time was not used as a measure of complexity.

[247] Max Weber cited in Gibson et al, 2003.

at the higher levels of organizational hierarchies are typically well versed in older and more stable tasks and are prone to interpret events in terms of these tasks. These upper level leaders are wont to favour strategies and personnel assignments that will centralize these tasks. While such a notion would be acceptable in the Aquarian approach, Jaques also points out that if you are unfortunate enough to be promoted to a managerial role at a stratum above your level of potential capability, you cannot be a successful managerial leader thus implying that artificially attempting to manipulate the hierarchy is a short term fix. If an organization does not, over time, fix this temporal situation it will fade into oblivion.

Weick echoes Miller's concerns that a drift to an "architecture of simplicity"[248] such as outlined in the managerial accountability hierarchies, requires greater attention to sufficient cues in order to enrich the sensemaking process[249]. The change of form could lead to increased innovations to manage complexity, resulting in generic communications replacing or significantly diminishing face-to-face interactions and resulting in poor sensemaking processes. Jaques is in agreement with such a notion and has outlined requisite managerial leadership practices as necessities[250].

These managerial leadership practices, lead to another concern that Weick discusses; control. Weick argues that the imposition of first and second order controls on subordinates leads to complex situations that spiral in unexpected directions with unanticipated consequences. The result creates an incomprehensible situation for the top management and they handle the situation by using third – order premise controls. All of these controls are not "a cause action but rather affect action"[251], which is critical in sensemaking. A logical conclusion may then be to eliminate top management as current organizational structure trends indicate. Since "the organization makes sense, literally and figuratively, at the bottom, that is all the design that is necessary. Current organizational forms involving teams, lateral structures, and dynamic networks seem to embody this lesson. They do so because the newer designs appear to have all three forms of control at each level. And the number of levels is held to a minimum."[252] An example of such an organization is the

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[248] Weick, 1995

[249] Miller 1993

[250] These management leadership practices can be found in section ???

[251] Weick, 1995

[252] Weick, 1995

organized anarchy described by Olsen[253]. This organized anarchy is "a collection of choices looking for problems; issues and feelings looking for decisions-in-process through which they can be mediated; and solutions looking for questions."[254] The sensemaking process of the organized anarchy is current and is not bound by trite, rote routines. "Because they generate so many commitments and justifications, anarchies should make more sense to members than they do to observers."[255] Jaques is in agreement with the idea of minimizing levels, but would perhaps qualify it by calling for a reduction to a requisite minimum. The other proposals of different organizational forms differ with Jaques formulation and he has called all these forms academic pap since the concepts and principles contained therein are without sustenance and they cannot be practically implemented by serious executives.

Despite Weick's apparent intrigue with the new proposed organizational forms, he raises concerns about the new forms, perhaps agreeing, albeit partially, with Jaques assertion. Weick notes that the generic subjectivity routines and roles of bureaucracies are replaced by intimacy and discretion in these smaller collectives where people do not behave as experts but rather as collaborators. If the units that people work in continue to change their mission and size then generic subjectivity will be meaningless. If intersubjectivity sensemaking replaces generic subjectivity, then more cues will go unnoticed as intersubjectivity by nature is more deliberate and takes less for granted, meaning attention is focussed on an area, leading to more controlled information processing with fewer cues. A possible consequence of this might be that problems remain undetected for a long time and are only noticed when they have become difficult to solve. Weick summarizes his concerns by appealing for greater understanding of how these new organizational forms affect processes such as "selection, socialization, and scanning"[256].

## 4.4   Mental processes

Sensemaking is an act of filtering, with the filters influenced by the beliefs and values that the sensemaker holds. This is in line with Jaques four methods of mental

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[253] Olsen 1976

[254] Olsen, 1976

[255] Weick, 1995

[256] Weick, 2001

processing[257]. In Jaques model, the applied mental processing capability of an individual is a function of complexity mental processing capacity affected by the developed skilled knowledge and the value of or commitment to the job by that individual. According to Huber and Daft, occasions for sensemaking occur when information load[258], complexity[259], and turbulence[260] are present. As information load increases then people take steps such as omitting, filtering and discarding cues until a level of order, clarity and rationality is achieved. With increased complexity, the increased numerosity, diversity and interdependence of cues leads to a reversion to habitual and routine processing, which may be misleading. Turbulence leads to choices of the processes used in sensemaking. For example, one might choose to rely on intuition rather than on deliberate mental processing in highly turbulent situations.

Jaques combines information load, complexity and turbulence into the mental complexity capability aspect and adds value and skilled knowledge as further requirements to capture attitudes. Weick is in agreement with the two additions arguing that "clarity on values clarifies what is important in elapsed experience, which finally gives some sense of what that elapsed experience means."[261] The goal of order, clarity and rationality is the same in sensemaking and stratified systems theory. Jaques agrees with Weick that when information load exceeds one's mental processing capability then omitting, filtering, discarding and dealing with the cues in a simpler manner results. He, however, takes the idea a step further arguing that he can actually work out the level of mental processing and thus work out how the information will be analyzed, reorganized, judged and acted upon, i.e. processed. The importance of these observations is captured by Sutcliffe[262] who points out that organizational information processing is a function of top managers' informational processing capabilities. The greater the degree to which the top managers' perceptions accurately depict the actual environment observed the more the organizational information processing is enhanced. Conversely, where top managers are not able to effectively filter the large quantity and diversity of relevant and accessible

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[257] The four mental processing methods, declarative, cumulative, serial and parallel can be reviewed in section I.

[258] Information load is defined as a mixture of the quantity, ambiguity and variety of information that a person has to process

[259] Complexity is an increased number of ways that diverse elements can interact

[260] Turbulence is the combination of instability and randomness

[261] Weick, 1995

[262] Sutcliffe, 1994

information, the more limited is the organization's information processing capability. Bourgeois[263], Dess and Keats[264] are amongst other authors that have presented empirical evidence showing that organizational performance is more effective when managerial perceptions match environmental characteristics. In combining the views of behaviouralists (Hambrick & Mason[265], Daft, Sormunen & Parks[266], Hambick[267] and Kefalas & Schoderbek[268]) and structuralists (Huber, O'Connell & Cummings[269] and Leifer & Huber[270]), Sutcliffe identified three environmental factors that were repeatedly mentioned that affected top managers' information processing, namely characteristics of the management team, the organization's structure and the information acquisition processes used by an organization.

Weick seems to differ with Jaques in that he suggests that mental models are not hardwired into people but rather evolve through socialization. For example, he argues that within an organizational setting, people who regularly see each other at the same times and places will over time, directly and indirectly imitate one another thereby mutually defining their activities and will become more mutually dependent and predictable. Moreover, if the people socialize informally, whether through belonging to the same clubs or living within close proximity of one another and as they face a common enacted environment, then their mental models will converge.

So while Jaques and Weick agree that people of different mental models congregate at various strata of an organization, they differ on whether this congregation is primarily a result of nature or nurture. These differences are similar to those of Piaget and Vygotsky, the two authors whose work is considered the most prominent in the field of cognitive development[271]. As Sternberg notes:

> Jean Piaget proposed that cognitive development centers on
> increasingly complex adaptations to the environment, based primarily

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[263] Bourgeois, 1985

[264] Dess and Keats, 1987

[265] Hambrick and Mason, 1984

[266] Daft, Sormunen and Parks, 1988

[267] Hambrick, 1982

[268] Kefalas and Schoderbek, 1973

[269] Huber, O'Connell and Cummings, 1975

[270] Leifer and Huber, 1977

[271] Sternberg, 1999

on changes due to physiological maturation…Lev Vygotsky's theory of cognitive development more strongly emphasizes the importance of the social context, rather than physiological maturation, as a determinant of cognitive development.[272]

## 4.5   Time horizons

In Jaques theory, the key to measuring and determining mental processing capability is time-span or time-horizon. As discussed previously, time-horizon is about people's enactment of the future by forecasting and controlling while still comfortably performing their roles. This is not a foreign concept to Weick as he agrees that sensemaking varies "as a function of how far into the future a line of action extends, the availability of news, the capability for scanning… the tolerance for risk, the design of the news-collecting structure, and the ease of movement toward sources of news."[273] However, from a sensemaking perspective, Weick argues that forecasting and planning are irrelevant without referring to prior actions and history. Jaques agrees that prior actions and history are important when he argues that current capabilities are partly a function of skills developed. He further makes a bold statement that it is human nature to be able to organize complexity out to a 7- to 8-year time-horizon while retaining the ability to predict or forecast with sufficient confidence to undertake budgeted plans and projects. Beyond 10 years there is a conceptual shift from forecast planning to long-range envisionment of what we would like to accomplish. Most people cannot concretely plan and resource beyond 10 and 20 years. In other words, Jaques says that effective, tangible future enactment on the environment is limited to 10 years. While Weick is emphatic about enactment, he does not give time spans in the Jaques manner. In fact, without stipulating the time-horizon he is dealing in, Weick argues that enactment occurs because people have acted on their interpretations and have indeed created the future they have forecast or predicted.

Weick, in line with his stated argument that sensemaking has a strong retrospective element, argues that decision makers are only as good as their memories[274]. Memory is only as good as the detail retained within it. Good decision makers are also aware

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[272] Sternberg, 1999, chapter 13

[273] Weick, 2001

[274] Weick refers to Berger and Luckmann, 1967; Giddens 1976 and Daft and Weick, 1984 as examples that have also reached the same conclusion.

of choice points that could be added to a narrative of earlier events to increase its plausibility. Jaques is in agreement with this stating that all knowledge is verbally articulated, and is held in memory.

## 4.6    Managerial leadership practices

A requisitely organized entity is also aligned by its managerial leadership practices. The generic values are valuing the individual and his/her development, mutual trust and confidence, shared values and commitment, and democratic free enterprise and its opportunities. Specific values, according to Jaques, are:

- *Work for everyone* at a level consistent with their level of potential capability, values and interests.
- *Opportunity for everyone* to progress as his or her potential capability matures, within the opportunities available in the organization.
- *Fair and just treatment for everyone*, including fair pay based upon equitable pay differentials for level of work and merit recognition related to personal effectiveness appraisal.
- *Leadership interaction between managers and subordinates*, including shared context, personal effectiveness appraisal, feedback and recognition, and coaching.
- *Clear articulation of accountability and authority* to engender trust and confidence in all working relationships
- *Articulation of long-term organizational vision* through direct communication from the top
- *Opportunity for everyone* individually or through representatives to participate in policy development.

These values are achieved by the requisite practices that have been discussed previously, namely two-way managerial team working, context setting, planning, task assignment, personal effectiveness appraisal, merit review, coaching, selection and induction, dismissal and deselection and continual improvement.

In so much as these values and practices aid alignment, they assist sensemaking by making lines of action clear, which is a necessary component of enactment. However, controlled work creates nonroutine spin-offs which require interpretation and judgement. These spin-offs could lead to third-order premise and ideological controls which have an impact on sensemaking, which Weick is wary of. Jaques is also concerned with such behaviour and insists that practices such as hiring and firing,

which are taken as the "sine qua non[275] of any managerial role"[276] do not merit a place in a managerial accountability hierarchies. The deselection process, which has been discussed previously[277], is the authority needed to deal with anti-social behaviour. Hiring is the responsibility of the manager once removed (i.e. the manager's manager) with the manager being able to deselect unsuitable people. Moreover, hiring is an opportunity for evaluating managerial utilization of the subordinates. In addressing other issues such as continuous improvement, Jaques argues that individuals should not be held accountable for improving their own work. The employees should be held accountable only for working at a level of work required for the role they occupy. Continual improvement is achieved by managers allocating the resources to influence improvement. Control measures such as bonuses should not be paid for a manager embarking on a continuous improvement process; this is an expected practice for all managers.

It is interesting to compare Jaques formulation of essential managerial practices with those advocated by a behavioural scientist such as Mintzberg[278]. According to Mintzberg, the essential skills of a manager are

> ...developing peer relationships, carrying out negotiations, motivating subordinates, resolving conflicts, establishing information networks and subsequently disseminating information, making decisions in conditions of extreme ambiguity, and allocating resources. Above all, the manager needs to be introspective about his work so that he may continue to learn on the job.[279]

While one can note the areas of commonality and overlap, such as disseminating information, resolving conflicts and making decisions, the interesting aspect is in the areas emphasized by Jaques and either omitted or de-emphasized by Mintzberg and how the common areas are achieved. In brief, Mintzberg steers clear of words similar to Fayol's classical mantra of managerial work as planning, organizing, co-ordinating and controlling, as he deems the mantra phenomenologically unsupportable and

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[275] Sine qua non is Latin for an essential indispensable condition or factor.
[276] Jaques, 1996
[277] See section 3.4
[278] Mintzberg, 1975
[279] Mintzberg, 1975

useless[280]. Mintzberg emphasizes negotiation, motivation and introspection. Jaques emphasis on the other hand, is relatively close to the mantra. Words such as task assignment, deselection and dismissal, context setting and merit review are related to organizing, co-ordinating and controlling. Thus wherever Jaques is in agreement with Fayol, he differs with Mintzberg.

## 4.7    Work and its definition

Jaques says that work is about problem-solving. He argues that the absence of problems[281] means there is nothing to do. Work has to do with problem-solving, which is choosing a field of endeavour and then finding a way to traverse the field to reach a goal. If you do not have a field to traverse then there's nothing to do. Weick adds more to this analysis pointing out that problems often are not readily defined but rather have to be constructed from the problematic, puzzling or uncertain situation. This definition of the problem requires a certain kind of work that is, to create sense out of a nonsensical situation or stated differently, to indicate what will be attended to and to frame the context of that being attended to. These views are complimentary. For example, in Jaques idea of traversing a field, he indicates that there are only two pathways – a known or certain pathway and an uncharted or uncertain way. Known pathways take the form of retrieval of previously learned knowledge or calculations based on known routines. Of importance is that Jaques highlights that these retrievals and calculations are not true decision-making. Of greater interest to both Jaques and Weick are the uncharted pathways that require judgement and choice-making decisions. It is these pathways that are used to determine the time-horizons that Jaques uses to determine mental capabilities.

Before leaving the discussion of work, one needs to point out some statements that Jaques makes which are of interest to the sensemaking student. Jaques says that work is "the effort in giving energy and direction to the non-verbal mental aspect and bringing or allowing the outcomes to be brought into verbalizable awareness, so that

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[280] Mintzberg's argument is that Fayol's mantra provides vague objectives of a manager's work. To emphasize his point Mintzberg uses scenarios such as a factory having burnt down and the factory's manager making temporary arrangements to meet a customer's needs or an employee being awarded a gold watch for long service to point out the vagueness of the mantra. However, proponents of the mantra could argue that despite the vagueness the elements of planning, organizing, co-ordinating and controlling remain in the scenarios.

[281] Weick uses the GF Smith, 1988 definition of a problem as "an undesirable situation that is significant to and may be solvable by some agent, although probably with some difficulty." Jaques analyses this undesirable situation as the unavailability of something needed or wanted by oneself or someone else.

they can become part of your knowledge and available for conscious use in problem solving."[282] From this he then concludes that "human work can *never* be exclusively knowledge-based."[283] He also argues that removing non-verbal judgements out of a decision changes the decision to a computation that can be mechanized or computerized. "Human work is the application of mental concentration over target time…and the possible outcomes are always unpredictably open."[284] Any discussion on matters that verbalize that which was noted, recreated and added to the environment, is of interest to sensemakers and builds yet another bridge between the two theories.

## 4.8 Contextualization

In the preceding section, it was shown that part of the work in problem-solving was contextualization. This contextualization is an ongoing process that allows all those working to stay abreast of changing circumstances, enabling clear understanding of the situation being addressed. As Leiter explains, "without a supplied context, objects and events have equivocal or multiple meanings." [285] This argument is in line with Shotter's argument of the manager as "a 'practical-ethical author,' a 'conversational author,' able to argue persuasively for a 'landscape' of next possible actions, upon which the 'positions' of all who must take part are clear" [286]. In this role, the manager formulates the problem, frames or contextualizes it by placing it and limiting the possibilities to be pursued. All this is done in conversation with the various stakeholders. This is in line with Jaques argument where he notes that in a practical managerial situation the major aspects of the context are an understanding of the overall wider vision of an organization, one's manager's assignments and problems and one's own problems. Once this context is provided, then people are tied together by salient information and justifiable actions.

## 4.9 Trust

Trust is a critical value in the optimal functioning of the managerial accountability hierarchies and Jaques calls it the "basic social glue"[287]. The vast majority of working

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[282] Jaques, 1996

[283] Jaques, 1996

[284] Jaques, 1996

[285] Leiter 1980 cited in Weick

[286] Shotter 1993

[287] Jaques, 1996

people function in an organization and they have to trust that they will be treated fairly and be given an opportunity to contribute to the organizational goals. Mistrust and suspicion are called the "prime enemies of reasonable human relationships"[288]. Furthermore, as Dutton and Dukerich[289] have reported, there is a close link between an organization's image and individual's character with individuals self perception (identity construction) formed and modified by the way others view the organization where they work. While trust is overtly identified as a principal value in organizational structure, it is also an important factor in sensemaking, despite it not being singled out specifically in Weick's writing.

## 4.10  Leadership

Throughout *Requisite Organization*, Jaques couples management and leadership referring to them as managerial leadership. He couples them so that values of importance cannot be attached to one over the other. In fact, all managers must carry out requisite leadership practices when dealing with their subordinates. A manager, as was previously described, is "a person who is held accountable for the output of others, for sustaining a team capable of producing those outputs, and for giving effective leadership to that team."[290] Leadership to Jaques, is "the accountability in some, but not in all roles, to influence one or more others – followers – *willingly* to accept the leader's purpose and goals and all to move in the direction set by the leader by suffusing authority with leadership practices appropriate for that role." Citing Thayer[291], Weick argues along similar lines, saying that a leader is one who alters or guides the manner in which his followers mind the world by giving it a compelling face…A leader does not tell it as it is; he tells it as it *might* be, giving what is thereby a different face. Thus a leader is then a *sense-giver*. Leadership breeches those scenarios where events do not make sense and our ability to make sense of the chaotic situations is weakened. In such a scenario, Weick argues that we embrace any explanation, especially the ones that we have heard the most, as a partial solution is better than an inexplicable situation. Weick refers to this step as superficial simplicity. However, as these superficial simplicities start to unravel and people seem as if they will be engulfed by inexplicable situations, the leader then listens, tells and structures

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[288] Jaques, 1996
[289] Dutton and Dukerich, 1991
[290] Jaques, 1996
[291] Thayer, 1987?

the explanations to create a more nuanced solution leading to confused complexity. Once these confused complexities are mentally tested and their consequences are understood then profound simplicities remain until the next crisis.

It does not require a big mental leap to link Weick's three stage argument of leadership and Jaques hierarchy of mental processing. The superficial simplicities that Weick refers to are similar to the declarative and cumulative mental processing capabilities that Jaques proposes and the confused complexities are comparable to serial and parallel mental processing modes. The profound simplicities are a repetition of declarative and cumulative mental processing but at a higher level of abstraction. The lowest level of profound simplicities corresponds to Jaques stratum V, the lowest level of cognitive abstraction and yet a critical level in large multinational organizations as it links the symbolic machinations of factories and abstract workings of head offices. As Jaques argues, this is the lowest level of a unified system within an organization.

There is however an area which is not clear in Weick's argument that may lead to disagreement. Weick does not stipulate whether all are capable of developing the nuanced explanations that move one from simplified to profound simplicities. If one were to interpret Weick to imply that everybody is inherently capable of generating profound simplicities, then Weick's and Jaques formulations differ significantly. If however one were to interpret Weick to mean that not all are capable of mentally processing information in such a way to generate profound simplicities, then the managerial accountability hierarchy could also be referred to as hierarchy of levels of nuance or simplicities.

## 4.11  Mentoring

Another managerial leadership practice that Jaques articulates which differentiates the managerial accountability hierarchies from many other bureaucracies is his concept of mentoring. Jaques argues that not only must an individual have a mentor, but the mentor must not be the immediate manager, but should be the manager once removed. The reason that the immediate manager is unsuitable is that he or she does not have "*the breadth of perspective nor the articulated understanding of their own level of work*."[292] In other words, the immediate manager cannot give a complete sense of the role they occupy. This is an interesting concept from a sensemaking perspective in

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[292] Jaques, 1996

that the subordinate has a broader and greater variety identity construction, socialization and linking of extracted cues.

## 4.12 Meetings

Meetings are critical factors in the success of requisite organizations and sensemaking processes. In a requisitely structured organization, there are three important types of discussion in the meeting; provision of current information, discussion leading to a decision and exploratory brainstorming where a decision is not made. From a sensemaker's perspective, Weick argues that meetings assemble and generate minorities and majorities, and in doing so, create the infrastructure that creates sense. In fact, "meetings are sensemakers"[293] since "meetings define, represent, and reproduce social entities as well as relationships."[294] As Jaques further notes, meetings provide an opportunity for managers to work together with their subordinates and so managers are encouraged to convene them regularly. Weick, quotes Schwartzman who remarked that "meetings can both generate and maintain an organization by providing individuals with activity and with a way to make sense of this activity and their relationship to each other" [295] further adding to that by asserting that "meetings may be *the* form that generates and maintains the organization as an entity"[296] Weick also notes that meetings are the one managerial activity where sensemaking requisite variety can be mobilized.

## 4.13 Accuracy and plausibility

Weick successfully argues that accuracy is a secondary consideration in sensemaking since distortion and filtration have to happen to ensure that the sensemaker is not overwhelmed by data. Also, sensemaking is often constrained by time limitations, requiring quick decision making. In such instances, the importance of accuracy is secondary to plausibility. Furthermore, sensemaking is about embellishment and elaboration and in such a case, "accuracy is meaningless when used to describe a filtered sense of the present, linked with a reconstruction of the past that has been edited in hindsight."[297] Other reasons brought to the fore by Weick include aspects of auditing interpersonal auditing, individual capabilities and the immobilizing power of

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[293] Schwartzmann, 1987 cited in Weick, 1995
[294] Schwartzmann, 1987 cited in Weick, 1995
[295] Schwartzmann, 1987 cited in Weick, 1995
[296] Schwartzmann, 1987 cited in Weick, 1995
[297] Weick, 1995

accuracy.

Accuracy is also secondary in managerial accuracy hierarchies. The critical skill is exercising judgement and making decisions. As Jaques points out, if all the reasons that lead to a decision can be stated, then a calculation has occurred. A decision, on the other hand, is made when a choice is taken from a number of options. This is the real human work and its difficulty lies in the pathway that has to be constructed and traversed. The goal is rarely the problem. The decision in deciding the pathways to be taken is influenced by skills, values and purpose and it is impossible to determine if the decision taken was the best as other options were not tested nor were some of the reasons formulated and verbalized.

## 4.14  Communications

According to Schall[298], organizations are developed and maintained by continuous communication. Where communication is interrupted, the organization malfunctions or in the case of permanent cessation, the organization collapses. Weick concurs with the analysis since the communication activity is the organization as intersubjectivity and generic subjectivity happen through continuous communication. The managerial accountable hierarchy formalizes communication by stipulating who is empowered to inform who about what. For example, in the managerial accountable hierarchy, policies, regulations, etc cannot flow from lower strata to the top, but rather should flow from the top down. News is a sensemaking occasion that stimulates people to determine how the news arrived at its initial destination. How the news was derived implies the actions to be taken next.

## 4.15  Knowledge and Language

Jaques links knowledge and mental processing by remarking that knowledge is the articulated outcome of mental processing held in memory[299]. He asserts that if something that is sensed cannot be stated, that is cannot be made tangible, then it is not known. This is a similar line of reasoning taken by Weick. Weick argues that words are important if people know what they think when they see what they say. Words constrain what is said, categorized and labelled. For Weick, sensemaking in organizations is understood by focusing on the language used therein. As Gioia and

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[298] Schall, 1983

[299] Words are a part of the articulation. Other forms of articulating knowledge include formulae, designs, communications symbols, etc.

Mehra[300] note, deconstructionists would also very quickly point out that to understand Weick's analysis of organizational sensemaking one also needs to focus on the language he uses. However, Weick's concern that organizational structure scholars overlook or are unable to make the link between language and character, is allayed by Jaques' managerial accountability hierarchy. Jaques defines the requisite and anti-requisite organizations in terms of their use of knowledge[301]. This is unsurprising since the managerial accountable hierarchy is built on knowledge strata. Work that can be performed without having to think about the work is referred to as skills by Jaques. He refers to skilled knowledge to emphasize that the skills can be learned. What is important to note though, is that work and skilled knowledge differ in that work requires paying attention to, thinking about and making decisions on the work inducing activity, whereas skilled knowledge does not require one to think about the work.

## 4.16  Application

Jaques has developed what he calls "Archimedes Principle of Organization"[302] wherein organizations are limited by the working capacity of their chief executive officer. Jaques further goes on to say that the single most important factor determining the future growth of an organization is the mental processing level and growth of the chief executive officer. This principle can be explained using premise control theory. A premise is a supposition that enables subordinates to act but influences that action. Premises are more critical at the top of organizational hierarchies where work tends to be non-routine. As Weick remarks, premise controls limit the flow and content of information, limit the search for alternatives, focus the definition of what is dangerous, and constrain expectations. It is then evident that the richness of sensemaking is dependent on the mental processing capabilities of the highest ranking official of the organization. The richness of sensemaking should be patently obvious if one compares organizations headed up by chief executives at different strata of Jaques mental processing potential chart. For example, an organization led by a

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[300] Gioia and Mehra, 1996

[301] Jaques refers to the anti-requisite organization as that which uses knowledge to manipulate others and to control personal networks. The requisite organization is devoid of behavioural manipulation using knowledge.

[302] Jaques, 1996

stratum V chief executive will work within the bounds of a "unified whole system"[303]. An example is a large business unit of an organization. Work at stratum VI is of a greater complexity and takes into consideration and influences world-wide technological, social, political and economic factors. The boundaries within a stratum VI organization are thus not as easily bounded as those of a stratum V organization. Jaques refers to the stratum VI and above as the corporate level.

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[303] Jaques, 1996 uses the term unified whole system in a systems theory manner to depict a system intact and complete in itself and operating in an unbounded environment.

# 5

# Conclusions

In a sense, this thesis has sought to address how our rapidly changing world has challenged the hierarchical structures that have dominated organizational practice and theory and assessing how hierarchies can withstand the challenges. A critical question is whether hierarchies, that have been in existence for so long, can truly cope with the dispersed, quick responses needed in organizations for this and the coming centuries? In this thesis this question has been asked in another way: is sensemaking enhanced by well structured hierarchies? If hierarchies can enhance sensemaking, without their generally accepted dehumanizing limitations, then organizational theorists and practitioners will be to compelled to adopt hierarchies and where feasible to optimize the structure. Furthermore, all the associated fundamental behavioural practices will need to be assimilated.

Elliott Jaques has argued that he has developed the optimal universally-applicable organizational structure and that his creation results in manyfold organizational effectiveness increases over any other organizational form. This managerial structure is hierarchical and accounts for the way individuals' process information when engrossed in their work, hence its name, the managerial accountability hierarchy. Since individuals either use declarative, cumulative, serial or parallel processing methods with varying levels of complexity to process information, the hierarchy is built by repetitive steps of these processes at symbolic, abstract and universal levels. The level that an individual can operate within this managerial accountability hierarchy is determined by time span, which is the direct measure to determine capability or the potential level of work that an individual can or will be able to successfully execute and gives an indication of the maximum time to complete a task.

With regards the dehumanizing limitations of hierarchies Jaques has argued that there are managerial processes that must be entrenched to ensure the requisite functioning of the organization. These processes include regular manager-subordinate meetings to discuss context, plans, problems and suggestions; a regular updating of the context within which work is performed; planning, which is presenting alternative courses of

action to deal with problems; assigning tasks to ensure that they are just-in-time and are just within the required quality constraints; personal effectiveness appraisals; annual evaluation of applied capabilities to determine pay; coaching; continual improvement; deselection and dismissal. These processes build upon a number of fundamental assumptions Jaques has made about people. Firstly he has assumed that all people want to do work where they can exercise their full capabilities and to be rewarded fairly for their work. Secondly, he has assumed people seek to do work that is valued by others. Part of this valuation is evident through clearly defined and restricted differential pay levels commensurate with the managerial layers. Within each pay level there are three sub-divisions which allow the immediate manager to reward subordinates according to their deemed effectiveness. Thirdly, he has assumed that potential capability matures within a maturation band and that individual differences between people are evident. Therefore, provided an individual is psychologically healthy, their mental processing level can be ascertained and their potential capability growth can be plotted independently of educational, socio-economic and occupational opportunities.

Even if one were to accept that Jaques' Stratified Systems Theory is the way to structure hierarchies, there remained numerous questions of whether the managerial accountability hierarchy and its associated behaviours would lead to enhanced sensemaking. These questions, which were answered in the thesis, include the following: Does Stratified Systems Theory enhance instances that, in Karl Weick's sensemaking in organizations formulation, are grounded in identity construction, are retrospective, enactive of sensible environments, social, ongoing, focused on and by extracted cues and are driven by plausibility? Do the ideologies, third-order controls, paradigms, theories of action, traditions, and stories of managerial accountability hierarchies lead to rich raw materials of sensemaking namely the cues, frames and connections? Are the managerial accountability hierarchy's cues (which are present moments of experience) novel, persistent, difficult, discrepant and do they disturb the normal flow of events? Do the cues sufficiently matter to warrant a place on one's agenda? Are the managerial accountability hierarchy's past moments of socialization, the frames, sufficiently flexible to allow new, meaningful relational vocabularies when the frames and cues are interconnected? Do the initial stages of sensemaking processes, the auditing of cause-effect linkages, lead to problems of uncertainty rather than equivocality, placing a greater premium on sensemaking? Do the managerial

accountability hierarchy's stories and conversations, the oral components, as well as other sensemaking instances such as artefacts like inquiry reports become propaganda tools that are often used to deliberately filter and censure information to fit a preconceived goal? Are these instances within the managerial accountability hierarchy monologues flowing from the top down, often given further weight as their authors are typically experts in their fields wielding considerable formal organizational power?

Another way to view sensemaking is to use Wiley's three levels of sensemaking above the individual level. These levels are the intersubjective, the generic subjective and the extrasubjective. The intersubjective is a transformation of the singular into the collective as conversations between people lead to a merging of thoughts, feelings and intentions. Whereas the self is still evident at the intersubjective level, self is reduced to an interchangeable part of a system that fulfils a role and is expected to adapt to the prevailing norms and rules. The extrasubjective level is the highest level of abstraction where symbolism is used to reflect reality and the generic self is replaced by concepts and ideas as would be found in socialism and mathematics. Are these levels of sensemaking comparable to the strata of Stratified Systems Theory?

The short answer to all these questions is that in general Stratified Systems Theory and sensemaking theory are in accord. In addressing these and other questions, a dialectical approach was used and the arguments and counter arguments of both the Stratified Systems and sensemaking in organizations theories have been constructed and deconstructed. After each theory was presented separately, they were compared and contrasted to one another on significant management items that the theories discussed. The result was one of general consonance rather than conflict. It has not been necessary to retract significant elements of one theory in favour of the other. Examples of the complementary nature of the two theories, along with a few disagreements, are provided in the following paragraphs.

On the matter of structure and bureaucracy, a surface examination might indicate some dissonance. However a deeper inspection reveals commonality from both authors, with Jaques addressing the problems highlighted by Weick. Weick, like many other modern organizational theorists, remains wary of bureaucracies, concerned that participants in bureaucracies inherit out of date explanations of what they are doing rather than continually constructing their own views and ideas. This could, for

example, happen when people with expertise in tasks that are new to the organization agglomerate at the lower rungs of hierarchies and tend to interpret events in terms of these newer tasks. People at the higher levels of organizational hierarchies though, are typically well versed in older and more stable tasks and are prone to interpret events in terms of these tasks. These upper level leaders are more likely to favour strategies and personnel assignments that will centralize these tasks. Jaques' managerial accountability hierarchy is designed to reduce the bureaucratic behaviour by matching individuals' potential and applied capabilities with the level of complexity of the task and insisting on specific behavioural norms. These behavioural norms or requisite managerial leadership practices as Jaques refers to them, address Weick's concern that simple structures such as the managerial accountability hierarchies require greater attention to sufficient cues in order to enrich the sensemaking process. In effect Jaques hierarchy is built in such a manner that managers are skilled cue noticers and extractors. If a manager is not more capable of noticing, extracting and interpreting cues and then connecting them to frames both internal and external to their environment, they cannot manage their subordinates.

However not all organizational theorists are convinced about the applicability of hierarchies in all forms of organization. Some of these organizational theorists have proposed newer organizational forms based on advances in subjects such as biology, cybernetics, neurology and so forth. Weick's and Jaques responses to these newer forms differ somewhat. Jaques dismisses these newer forms as academic pap while Weick is intrigued even though he raises concerns about them. Despite the intellectual curiosity, Weick notes that in these newer forms generic subjectivity could be rendered meaningless with more cues going unnoticed. Consequentially problems could remain undetected for a long time and are only noticed when they have become difficult to solve. Weick summarizes his concerns by appealing for greater understanding of how these new organizational forms affect processes such as selection, socialization, and scanning.

With regards to the mental processing capabilities of individuals in an organization, Jaques and Weick are mainly in accord. Jaques combines information load, complexity and turbulence into the mental complexity capability aspect and adds value and skilled knowledge as further requirements to capture attitudes. Weick is in agreement with the two additions as the goal of order, clarity and rationality is the same in sensemaking and stratified systems theory. Furthermore Jaques agrees with

Weick that when information load exceeds one's mental processing capability then omitting, filtering, discarding and dealing with the cues in a simpler manner results. Both note that the greater the degree to which the top managers' perceptions accurately depict the actual environment observed the more the organizational information processing is enhanced.

Moreover, there is general agreement about time spans and horizons. Weick argues that sensemaking varies as a function of how far into the future a line of action extends but cautions that forecasting and planning are irrelevant without referring to prior actions and history. Decision makers, according to Weick, are only as good as their memories. Memory is only as good as the detail retained within it. Good decision makers are also aware of choice points that could be added to a narrative of earlier events to increase its plausibility. Jaques agrees that prior actions, history and memory are important when he argues that current capabilities are partly a function of skills developed and that all knowledge is verbally articulated, and is held in memory. He further makes a bold statement that it is human nature to be able to organize complexity out to a 7- to 8-year time-horizon while retaining the ability to predict or forecast with sufficient confidence to undertake budgeted plans and projects. In other words, Jaques says that effective, tangible future enactment on the environment is limited to 8 years. While Weick is emphatic about enactment, he does not give time spans in the Jaques manner. In fact, without stipulating the time-horizon he is dealing in, Weick argues that enactment occurs because people have acted on their interpretations and have indeed created the future they have forecast or predicted.

Both Weick and Jaques have developed models of their theories and one can link Weick's three stage argument of leadership and Jaques hierarchy of mental processing. The superficial simplicities that Weick refers to are similar to the declarative and cumulative mental processing capabilities that Jaques proposes and the confused complexities are comparable to serial and parallel mental processing modes. The profound simplicities are a repetition of declarative and cumulative mental processing but at a higher level of abstraction. The lowest level of profound simplicities corresponds to Jaques stratum V, the lowest level of cognitive abstraction and yet a critical level in large multinational organizations as it links the symbolic machinations of factories and abstract workings of head offices. As Jaques argues, this is the lowest level of a unified system within an organization. A gray area arises as Weick does not stipulate whether all are capable of developing the nuanced

explanations that move one from simplified to profound simplicities. If one were to interpret Weick to imply that everybody is inherently capable of generating profound simplicities, then Weick's and Jaques formulations differ significantly. If however one were to interpret Weick to mean that not all are capable of mentally processing information in such a way to generate profound simplicities, then the managerial accountability hierarchy could also be referred to as hierarchy of levels of nuance or simplicities.

The one area where Weick differs sharply with Jaques is where he suggests that mental models are not hardwired into people but rather evolve through socialization. So while Jaques and Weick agree that people of different mental models congregate at various strata of an organization, they differ on whether this congregation is primarily a result of nature or nurture.

They do however agree that mental models are utilized for work. Both Jaques and Weick define work in terms of problem-solving. The absence of problems means there is nothing to do. Work has to do with problem-solving, that is choosing a field of endeavour and then finding a way to traverse the field to reach a goal. If you do not have a field to traverse then there's nothing to do. Of greater interest to both Jaques and Weick are the uncharted pathways that require judgement and choice-making decisions. It is these pathways that are used to determine the time-horizons that Jaques uses to determine mental capabilities.

To prevent equivocality or multiple meanings the work has to be performed within a context. This means that one has an understanding of the overall wider vision of an organization, one's manager's assignments and problems and one's own problems. Once this context is provided, then people are tied together by salient information and justifiable actions. The context provider in this instance is the leader. The language used by both Jaques and Weick to describe a leader is complimentary. Jaques uses words such as accountability, influence others, leadership practices and authority while Weick uses phrases such as guides the manner in which followers mind the world, tells it as it might be and is a sense-giver.

One of the ways that context is given is through meetings. Meetings are critical factors in the success of requisite organizations and sensemaking processes. Weick says that meetings assemble and generate minorities and majorities, and in doing so, create the infrastructure that creates sense. Meetings are sensemakers that define,

represent, and reproduce social entities as well as relationships. Jaques gives a similar argument using different words.

With regards other matters such as accuracy, communication, language and so forth, Weick and Jaques are in full agreement.

The outcome to the thesis has been a confirmation of the hypothesis that the requisitely structured managerial accountability hierarchy enhances sensemaking. In other words, not only are both theories complementary, but the intellectual and authoritative energy required to establish and maintain a managerial accountability hierarchy significantly enhances sensemaking. Managerial accountability hierarchies and sensemaking processes are cut from the same cloth as managerial accountability hierarchies impose a sense of order and clarity by simplification, connection and minimizing deviations. Sensemaking is a similar process of creating something tangible by filtering, framing and reconstructing the subjective. Managerial accountability hierarchies also structure and are structured by sensemaking processes. In fact, instead of talking about hierarchies, one could use Weick's levels of simplicity or nuance as the generic structure with Jaques cognitive levels giving further definition to the structure. This is particularly true when the sensemakers in the structure are faced with instances of equivocality.

# Glossary

*Alderfer's Three-Level Needs Hierarchy* – Also know as ERG (Existence, Relatedness and Growth) Theory. This theory is a modification of Maslow's hierarchy of needs. It has reduced Maslow's hierarchy of needs to three as Maslow's middle levels overlap.

*Applied capability* – refers to the job an employee is currently performing, considering their mental processing capability, commitment to (or value of) their work and the skilled knowledge developed.

*Behaviouralists* – organizational theorists whose greater emphasis is placed on behaviour and abilities to adapt to the ever changing environment. Behaviouralists argue that increased control stifles creativity and innovations and hence minimizes organizational capability to effectively adjust to the ongoing environmental change.

*Bounded Rationality* – Uncertainty about the future, costs in attaining information in the present, cognitive limitations and time to make a decision limit agents from making fully rational decisions. Herbert Simon referred to this rationality as bounded rationality.

*Complex adaptive systems* – Systems that are complex in nature and have the capacity to learn from past experience.

*Complexity of mental processing* – the maximum scale and complexity of the world an individual is able to pattern, construe and function in, including the amount and complexity of information that must be processed in doing so.

*Confused complexity* – Confused complexity refers to the point where we realize that our initial response in dealing with an inexplicable event may have been simplistic and we then seek a more nuanced explanation.

*Contingency Theory* – The key principle of this theory is that a best way to lead, organize or make decisions does not exist. The optimal style is a function of the situation met and the constraints therein.

*Cues* – Cues are the concrete or less abstract artefacts extracted from a context and focused on as part of the sensemaking process. Oftentimes cues are representations of the present as Karl Weick points out.

*Deselection* – is the manager's authority to initiate removal of an employee so that they can seek work elsewhere within the organization. If they are unable to secure work elsewhere they are released from the organization's employ with similar benefits to someone who has been retrenched. This is Jaques proposal to confer authority on a manager to remove an employee from a role while protecting the employee from abuse if they genuinely seek to contribute to the organization.

*Extrasubjective sensemaking* – Extrasubjective sensemaking refers to the highest level of abstraction where reality is purely symbolic such as that embodied in subjects such as mathematics or systems such as socialism.

*Felt-fair* – In his research Elliott Jaques was prone to asking employees across the organizational spectrum what they felt was a fair pay for their various roles, hence the term felt-fair pay.

*Frames* – Frames are the more abstract artefacts extracted from a context and focused on as part of the sensemaking process. Oftentimes frames are representations of the past. Sensemaking is the process of connecting cues to frames, linking the present to the past.

*Generic subjective sensemaking* – Generic subjective sensemaking is sensemaking at an abstract level where concrete selves do not exist but rather structures are created where roles and rules are filled and followed in an interchangeable manner.

*Herzberg's Two Factor Theory (Motivation-Hygiene Theory)* – The theory postulates that people are influenced by motivation factors (which include recognition, promotion, growth, the work itself, achievement, etc.) and hygiene factors (salary, status, working conditions, personal life, etc.). Based on these factors, Herzberg made conclusions such as inadequate hygiene factors lead to dissatisfaction but adequate motivation factors do not lead to satisfaction; hygiene factors operate independently of motivation factors, and so forth

*Intersubjective sensemaking* – In intersubjective sensemaking individual thoughts, feelings and intentions are merged to transform individual sense into a communal sense amongst a group of people.

*Managerial Accountability Hierarchies (MAH)* – This Elliott Jaques term is used with regards to hierarchies but emphasizes managers' accountability over their immediate subordinates and the cascading of work and accountability in sequential layers down

the organizational hierarchy. This hierarchy is developed by ensuring that managers have one level higher stratum or task complexity than their subordinates.

*Maslow's hierarchy of needs theory* – Abraham Maslow proposed a theory where people's physiological needs (breathing, food, water, etc) are their most basic and prop up a pyramid of needs where self-actualization needs (morality, creativity, problem solving, etc.) are at the apex. Between these two extremes are esteem, love and safety needs.

*McClelland's Theory of Learned Needs* – Also known as McClelland's Theory of Needs, postulates that individuals needs are acquired over time based on their life experiences. These needs can be classed as achievement, affiliation or power needs.

*Orders of information complexity* – Complexity of problems, strategies or tasks is dependent on the number, rate of change, clarity and ambiguity of and extent of interconnectedness of the variables involved. Thus while each level of information processing inherently has a measure of complexity, the levels differ in degree (or quality) rather than in quantity.

*Organizational Ecology* – Organizational Ecology is the use of biology, economics, sociological sciences in combination with statistics to understand the conditions that give rise to organizations, their growth and death.

*Organizers* – refers to organizational theorists who place greater emphasis in clear job definitions, routines, duties and lines of authority with effectiveness principally influenced by management of structure and culture of the organization.

*Potential capability* – is the highest level at which a person could work in a strongly valued job provided the person has gained the necessary skilled knowledge. This is the person's maximum complexity of mental processing.

*Profound simplicity* – Profound simplicities are the meanings of an inexplicable event one is left with after mentally processing the consequences of that event. This is the final stage of unravelling an inexplicable event after superficial simplicity and confused complexity.

*Requisite structure* – The Oxford English Dictionary defines requisite as required by the nature of things. Thus, Elliott Jaques refers to a requisite structure as an organization where patterns of connections ought to exist between roles if the system is both to work efficiently and to operate as required by the nature of human nature

and the enhancement of mutual trust.

*Role* – a position within an organization.

*Sensemaking* – Sensemaking is the cognitive ability to create a context using the seven properties of identity construction, retrospective analysis, sensible environment enactment, social contact, recognizing that events are ongoing, focussing on and by extracted cues and creating plausible stories or explanations.

*SIR COPE* – an acronym for Weick's seven properties of sensemaking: Social, Identity construction, Retrospect, Cues (extracted), Ongoing, Plausible and Enactive

*Stratified Systems Theory (SST)* – Jaques theory of organizing a hierarchy in a requisite manner taking into consideration levels of work, individuals' cognitive capabilities and behavioural norms. The essence of Stratified Systems Theory is that all humans have an inherent cognitive potential level of coping with complexity. This complexity potential is hardwired into all of us and enables us to deal with certain complexity roles. However, everybody matures over time and generally every 15 years or so, people cross a threshold and have the potential to successfully handle the next level complexity jobs. See also Requisite structure.

*Stratum of Role or Level of* Work – Level of work refers to what is commonly described as the size of the position or how big a role one position is compared with another or how heavy the responsibility is in a job. Elliott Jaques argued that there are distinct, qualitative levels of task complexity. These tasks can be grouped into levels or strata.

*Superficial simplicity* – Superficial simplicity refers to our tendency to derive initial meaning of an event based on how we feel. It is a tendency to assuage our initial sense of unease, the first step in dealing with the inexplicable.

*Task* – a quantitative and qualitative output to be completed within a given time and within specified resource, policy, regulatory boundaries.

*Taylorism* – Frederick Taylor introduced concepts based on a scientific approach, which have been foundations for management theory such as rest breaks to allow workers to recover, increasing workers productivity by discovering best practices for a job and then teaching the workers that best practice and division of work between workers and administrators, with one of the administrators tasks being to select the right workers for a job, that is matching workers and jobs. Taylorism and scientific

management are used interchangeably.

*Timeless time* – In Manuel Castells theories, timeless time occurs when previously sequential events are rearranged to work simultaneously.

*Time-span of discretion or Time-span* – Time-span is an indication of the maximum time to complete a task based on the organization's goals and it is a direct measure to determine the level of the work. Any roles that have the same time-span have the same level of work.

*Two-way managerial team working* – regular meetings with all immediate subordinates to discuss context, plans, problems, suggestions.

*Type A (or B) personality* – Type A or B personality refers to individuals patterns of behaviour. Type A's are characterised as impatient, highly competitive, ambitious, etc. In contrast Type B's are thought of as apathetic and disengaged.

*Values* – can be defined in various ways, Jaques definition is those things to which an individual will give priority or wants to do. In other words, values are vectors which direct our actions.

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