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CHAPTER 1

INTRODUCTION: PURPOSE AND APPROACH OF THE STUDY

1.1 INTRODUCTION

Network Direct Selling Organisations (NDSOs) have been the subject of several inquiries over many years. In *Charismatic Capitalism* Biggart (1989) associates the underlying ethos of NDSOs with value rationality rather than instrumental rationality, although Bone (2006) shows that NDSOs have “the calculative generation of money as their central goal”. Bhattacharya and Metha (2000: 361) describe NDSOs as “those organizations that depend heavily or exclusively on personal selling, and that reward sales agents for (a) buying products, (b) selling products, and (c) finding other agents to buy and sell products”. Bloch (1996:18) says the commission earned on the sales of recruited members is the big attraction that draws many people to join this industry, although the global statistics indicate that the vast majority of members do not earn any significant income through network direct selling.

Bhattacharya and Metha (2000:362) remark that the phenomenal growth of NDSOs is astonishing, as is the controversy they seem to attract. They even ask whether NDSOs exhibit cult behaviour. In general, criticism aimed at NDSOs revolves around the ethics of commercialising personal relations, the low earnings of distributors, and the general impact on members' and their acquaintances' social lives (that revolve around meetings, tea parties, conventions and other occasions organised under the NDSO banner). Other studies express concern about the high sales force turnover¹ in direct selling. Socialisation is central to NDSOs' operations but has a different dimension to socialisation in more typical organisation types.² The social dimension of NDSOs also appears to create networks that differ

¹ See Jagannathan and Akhila (2009).

² Cf. Flanagan and Waldeck (2004); Kramer and Miller (1999); Grant and Bush (1996); Crittenden and Crittenden (2004); Lopez and McMillan-Capehart (2009); Ashforth and Mael (1989); Sparks and Schenk (2006); Myers and Oetzel (2003); Cable and Parsons (2001); Yi and Uen (2006); Kraimer (1997); Starr and Fondas (1992); Gómez (2009); Mathews, Manalel and Zacharias (2007); Evans, Stan and Murray (2008), Menguc, Han and Auh (2007) and Cawyer and Friedrich (1998).

significantly from the networks described in existing literature relating to network theory and analysis.³

The global statistics reveal that these organisations operate in more than fifty countries and that they have a significant presence within many other social systems. Most (adult) individuals in developed societies have had some encounter with NDSOs as far as attempted sales, recruitment or the involvement of close friends or relatives is concerned. The interpenetration between commercial and social systems has given rise to criticism, legislation and what can be described as social and psychological discomfort within many social systems and at many different levels, as this study aims to show. Some critics, such as Taylor (2008), labels NDSOs pyramid schemes, while others, such as Bolton (2010),⁴ argues that members can simply become consumers of a “superior” range of products at a lower cost and can gain independence⁵ through recruiting other individuals who do the same.

1.2 PURPOSE OF THE STUDY

The problem statement of this study is the following: to develop a theoretical explanation for NDSOs – why they exist, and how they sustain themselves and show significant growth despite the evidence presented that the vast majority of their members do not earn significant income through their membership.

The creation of networks as structures has implications for communication itself, and this requires further investigation, as the study aims to show. Networks created through and within NDSOs are not static structures that can be analysed retrospectively at any given point. They are co-created by and integrated with the (co-)creation of several other systems, and this means that the study of the communication processes through which social systems such as NDSOs (among other organisations) are created is required.

The following purposes and objectives have been set for this study:

1. To describe NDSOs as the phenomena under investigation in this study (Chapter 2);

³ Cf. Cruz and Olaya (2008);Ravasz, Somera, Mongru, Oltvai and Barabási (2002); Pathak, Day, Nair, Sawaya and Kristal (2007); Parkhe, Wasserman and Ralston (2006); Chae, Koch, Paradice and Van Huy (2005); Hammond and Glenn (2004); Chamlee-Wright and Myers (2008); Weitz, Benfrey and Wingreen (2007); and Muñis, Raya and Carvajal (2008).

⁴ Personal conversation with C Bolton: Five Diamond Director with GNLD, 31 May 2010.

⁵ See Bixler (2009), Msweli and Sargeant (2001) and Duffy (2005).

2. To assess whether cybernetics can serve as an existing meta-theoretical perspective for the study of individuals who co-create social systems such as NDSOs (Chapter 2);
3. To apply current theoretical developments in cybernetics in developing conceptual models for the study of communication that creates NDSOs (Chapter 4);
4. To provide a theoretical explanation for the existence of NDSOs by applying new conceptual models (Chapter 5 and Chapter 6).

The chapter flow diagram in Figure 1.1 below illustrates the flow of the content and argumentation in this study.

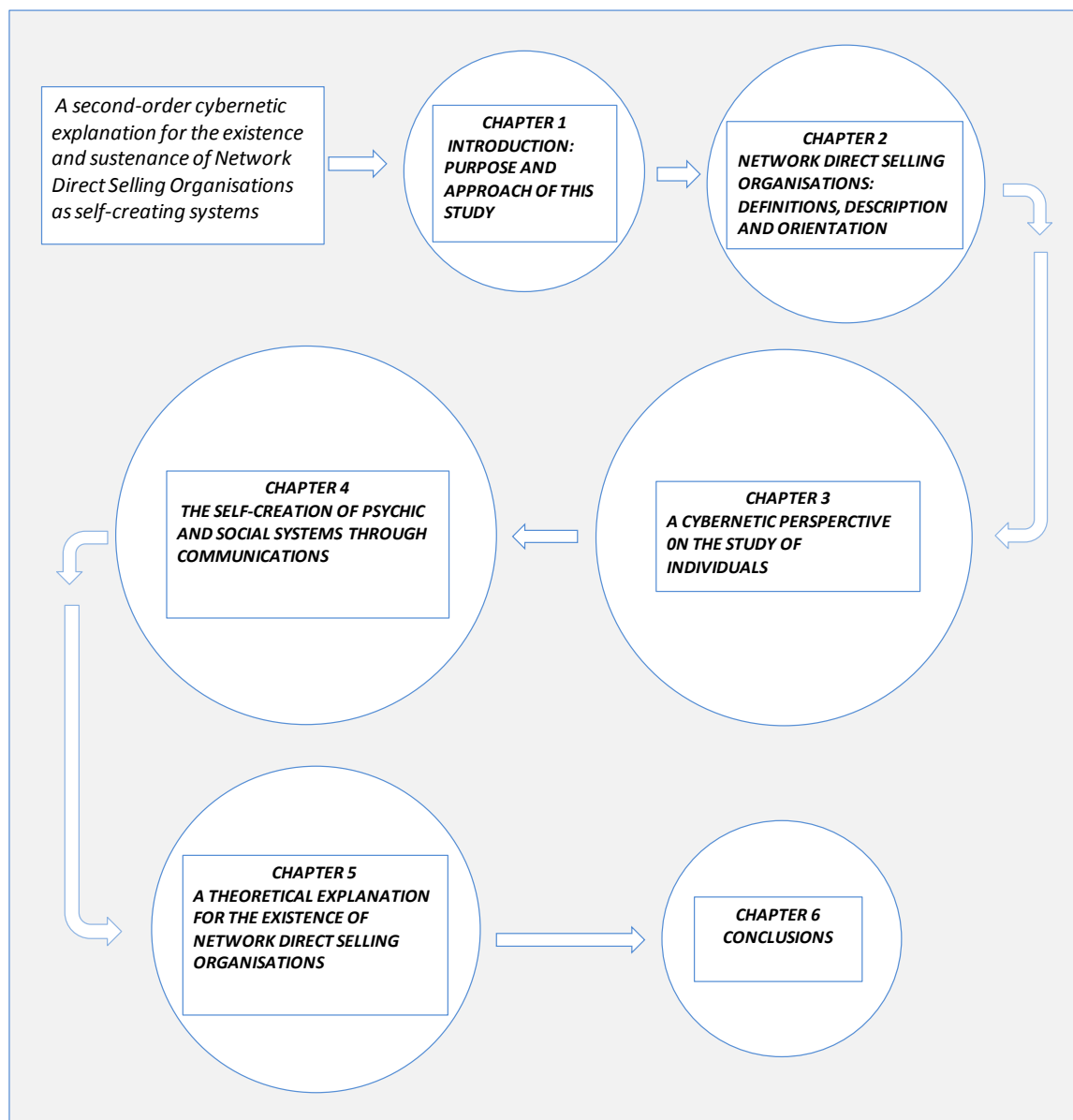


Figure 1.1: A chapter flow diagram of the content and arguments presented in this study

Chapter 2 describes NDSOs from an operational, tactical, and strategic perspective. It explores the origins and history of NDSOs and provides statistical information to describe the present status of this industry. The emphasis on networks provides a link to network theory, which positions the phenomena under investigation within the cybernetic tradition of communication theory as a field and provides a distinct link to cybernetics – the meta-theoretical perspective in this study.

Chapter 3 traces the origins of modern communication studies to their roots in the cybernetic tradition in order to re-assess the concepts of this tradition, which have previously applied predominantly in the natural sciences. First-order cybernetics is assessed to establish how some of its premises can be applied to the study of individuals. General systems theory is also re-assessed insofar as its application has previously been applied to social systems, and its central concepts are re-articulated for their application to the study of individuals. The discussions on complexity theories aim to show that some of the natural scientific premises established can be applied to social studies and the study of individuals in particular. The identification of theories within the discipline of psychology illuminates the multiplexity of individuals with specific focus on the unconscious communication that occurs between and among operationally closed systems within individuals and hence social systems. The introduction of second-order cybernetics as it relates to the study of communication, and particularly Luhmann's social theory of communication, provides the framework for the conceptual development in Chapter 4.

Chapter 4 provides a background to the study of communication within communication theory as a field. Craig's (1999) taxonomy of communication theory shows the existing categorising of communication theory and its relation to the cybernetic meta-theoretical perspective. Speech acts theory, the theory of the coordinated management of meaning and symbolic convergence theory are identified as broad constructivist theories, and are described and applied from a second-order cybernetic perspective. Two conceptual models are developed: the first aims to explore Luhmann's theorising about communication based on the selection of information, utterance, understanding, and expectation, and to link it to a persuasive framework within communication theory as a field. The second conceptual model integrates the understandings derived from second-order cybernetics, Luhmann's key communication concepts and theories within communication theory as a field to illustrate the multiplexity of individuals and how multiple systems co-create meaning. The latter occurs as the third selection (understanding) to accomplish a unity of communication synthesis that becomes information and utterance in a following or concurrent communication synthesis.

Chapter 5 integrates the discussions in the previous chapter to show how individuals create networks; how these networks create expectations; how these expectations are steered by communication themes; and finally how these themes initiate the self-creation of meaning that goes on to create further networks, as occurs in NDSOs.

Chapter 6 presents the theoretical and final conclusion to the study to answer the problem statement and indicates how the purposes of this study have been accomplished. The contributions, limitations and further recommendations of the study are identified.

The section below articulates the philosophical, theoretical and methodological orientations of this study.

1.3 APPROACH OF THE STUDY

This study's approach can be described in terms of the philosophical, theoretical, and methodological assumptions that inform the selection of its content. As Neher (1997:25) states:

It is really not possible for people to begin serious academic study in a field without some assumptions that shape the way they think about what they are studying. These basic assumptions lead to a perspective, a point of view. The perspective is important in determining the kind of observations they make and the kind of conclusions they come to. Our beliefs about reality lead to decisions concerning what to look for and what to count as evidence.

It is therefore imperative to articulate the specific assumptions that guide the inquiry in this study. The fundamental assumption in this study is that knowledge is created within individuals and co-created through the communication that occurs within, between and among individuals. The study therefore adopts a constructivist epistemological orientation. The broad theoretical assumption in this study is that a single science or discipline cannot encompass the entirety of any particular subject or field of inquiry. What is required is an interdisciplinary approach, as it is represented within the meta-theoretical perspective of cybernetics. The methodological orientation in the study can be described as qualitative in nature, insofar as the focus is placed on theoretical and conceptual development within communication theory as a field. A justification for the selection of qualitative methodology is not considered necessary: contemporary studies⁶ demonstrate its validity and contribution.

⁶ See Nichols (2009); Museus (2007); Shenton and Dixon (2004); Crang (2003); Crang (2005); Dachler (2000); and Davies and Dwyer (2007).

The study can further be described as both interpretative and applied since it offers an interpretation of both natural and social scientific theory within a broad social theory framework that is developed further through its application within communication theory as a field to provide a theoretical explanation for the existence and sustenance of NDSO. Further clarification is provided in the sections that follow below.

1.3.1 Philosophical orientation

The philosophical orientation discussed in this section identifies the fundamental epistemological and ontological assumptions that underlie the theoretical arguments presented in this study. Given that the emphasis here is on theoretical and conceptual development, axiological orientations are not considered.

1.3.1.1 Epistemological orientation

Blaikie (2007:1) identified six different types of epistemology⁷ for consideration in social scientific investigation, namely empiricism, rationalism, constructionism, falsificationism, neo-realism and conventionalism. The constructionist orientation is associated with idealist ontology, as argued later in this chapter. Blaikie (2007:22) makes a further differentiation between constructivism and social constructionism⁸. The former is also known as radical constructivism, which refers to the meaning-giving activities of the human mind and thus to cognitive processes, while the latter refers to the intersubjective creation of knowledge and the creation of meaning that is social rather than individual. The focus of social constructionism is therefore on the co-creation of meaning, as it is considered in this study.

The constructivist epistemological orientation of this study is integrated within all the chapters that follow. An understanding of knowledge as a self-created phenomenon is illuminated explicitly by Von Foerster (2003:281), who argues that the observer cannot be separated from the observation. Contrary to the realist claim that reality exists out there for discovery, the fundamental philosophical assumption in this study is that reality is created within, between and among individual and social systems, whether it occurs consciously or unconsciously, intentionally or unintentionally.

⁷ See Blaikie (2007:18-24) for further differentiation between epistemological assumptions.

⁸ Also see Rasmussen (1998) for his differentiation between constructivism and phenomenology.

The significance of this is articulated as follows by Kordeš (2005:297):

The choice of epistemological position is by no means a simple rational decision between different philosophical conceptions. It is a decision of existential importance, one which all of us have already made at some point in the past – and one which we confirm again and again, at any moment. The chosen position substantially determines the individual's cognitive habits and thus (from the constructivist's point of view) also his or her world. The choice cannot be objectively tested, since the selected answer establishes the epistemological framework and this represents the foundations of the network of concepts, on the basis of which we make our decisions and argue for our choice of answers.

It is therefore held that reality does not exist beyond the boundaries of experience that is determined by space and time, as Von Glasersfeld⁹ (1996:282) states: "If space and time are imposed by us as the coordinates that serve to order and systematize experience, then we have no way of representing to ourselves anything that lies outside the domain of our experience". As will become evident in the discussions on cybernetics in Chapter 3, much of the development of second-order cybernetics as an essentially constructivist theory occurred through conversations between and among its founders, as it is evident from Gordon Pask's conversation theory¹⁰ (1975).

Scott (2001b) uses Pask's conversation theory¹¹ to show how learning occurs through conversation and provides insight into the theoretical premises that support the view that meaning is socially constructed. Riegler (2001:6) shows that insights gained from radical constructivism¹² have the following impact on communication and language: 1) Meaning is constructed by humans and does not exist independently of its creators; and 2) Meaning cannot be transmitted as an entity, since it is not contained in words, gestures or even symbols through which individuals express themselves. Therefore, it has to be accepted from a constructivist epistemological stance that theorising in this study presents an *interpretation* of existing theory and also facilitates the creation of alternative understandings for further communication studies. Kordeš (2005:215) concurs:

The Macy Conferences helped to set the terms for conceptualizations of mind as both the form and the formation of communication. ... To reflect upon our epistemology presupposes observation of the second order. It requires that we acknowledge that we are autonomous and therefore that we are responsible even for our own epistemology.

⁹ See Von Glasersfeld (1996) for his discussion on Heinz von Foerster in his paper entitled "Farewell to Objectivity", in which he discusses his radical constructivist views in relation to the work of Hume and Kant. Also see Von Glasersfeld's (2001) paper entitled "The radical constructivist view of science" and his specific reference to the work of Peirce, as well as Einstein and Maturana, among others. Also see Cardellini (2008) for a discussion on Von Glasersfeld's influence.

¹⁰ Cf. Cooren (2003), Barnes (1996) and Smith & Searle (2003).

¹¹ See Scott's paper [entitled "Gordon Pask's conversation theory: a domain independent constructivist model of human knowing" (2001b) for his integration of the works of Piaget, Pask, Rescher, Maturana and Varela and Von Foerster, among others.

¹² See Riegler *Towards a radical constructivist understanding of science* (2001) for an argument that radical constructivism provides the foundation for a new world-view in which hard scientific problems can be overcome. Cf. Fergus and Reid (2002).

The Macy Conferences refer to the meetings among the founding members of cybernetics, which are discussed in Chapter 3. The conceptualisation below of key terms in this study provides clarification on the distinction between first-order and second-order cybernetics.

To conclude this section, an elementary distinction between the epistemological and ontological orientations of this study and their relation to the theoretical orientation here is illustrated in Figure 1.2 below.

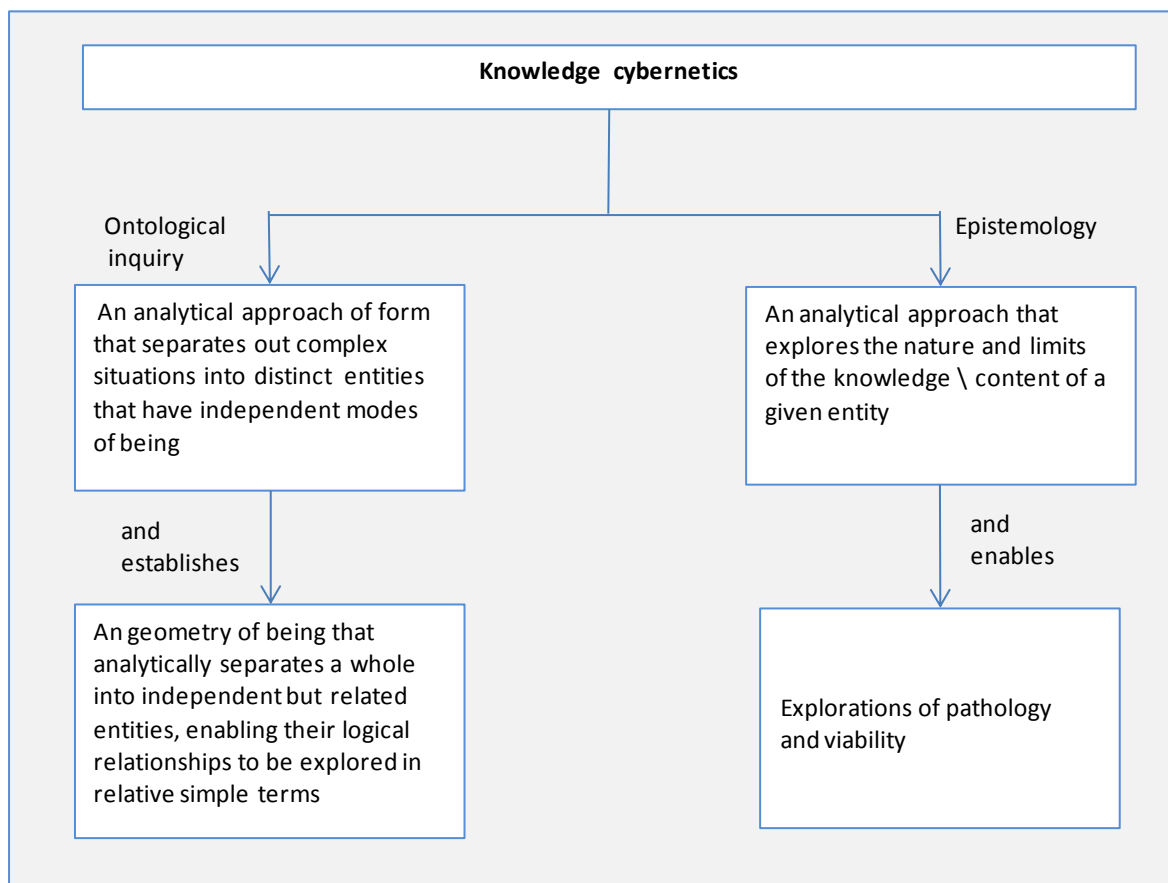


Figure 1.2: Distinguishing between ontology and epistemology (Yolles 2006:20)

In order to align clearly the philosophical and theoretical orientations of this study, the ontological considerations are presented in relation to cybernetics and to the key premises regarding the phenomena under investigation in the study, namely NDSOs. Yolles (2006:21) states: “While epistemological approaches enable the nature of knowledge to be explored, ontological approaches define types of being in a way that enables complex cybernetic relationships to be expressed simply”.

It is important to consider ontology in relation to the social systems in which it is constituted. As Yolles (2006:21) goes on to explain, a social system “provides for the creation of a social geometry through which component properties and relationships can be expressed and analytically explored”.

With the emphasis on complexity and multiplexity in the chapters that follow, it is of the utmost importance to relate the epistemological and ontological orientations to an extension of knowledge, namely meaning, and of being, namely *experiencing*. An individual’s experience creates meaning and hence expectation, and this is addressed to a significant extent in the chapters that follow. Figure 1.2 above provides further links between experience, meaning and communication themes, which are addressed in Chapters 3, 4 and 5. The section below considers the broader ontological orientation of this study.

1.3.1.2 Ontological orientation

Ontology is broadly described as a branch of philosophy that is concerned with the nature of what exists, and, in the social sciences, answers questions regarding the nature of social reality. Blaikie (2007:13) says that theories about the nature of social reality are frequently reduced to two opposed, mutually exclusive categories, namely idealist and realist. He states that: “In realist theory, both natural and social phenomena are assumed to have an existence that is independent of the activities of the human observer”. Such theorising is rejected in this study, as the idealist stance is adopted. It is therefore held that the external world has no independent existence apart from individuals’ thoughts and the meanings they attribute to their environments and to the other individual and social systems that comprise it.

The ontological orientation in this study is linked to three mutually independent dimensions of meaning and experience (being) that Luhmann (1995) refers to in metaphorical form as a double horizon. Laflamme (2008:72) observes that: “The term horizon is a useful metaphor [here] since it refers to an experience that we are familiar with: we know that changing direction, turning back to orient ourselves to the horizon opposite to the one chosen previously does not imply that we lose our lifeworld and its familiar references”. Table 1.1 below provides a link between the ontological and theoretical orientations in this study by illustrating how meaning (knowledge) and experience (being) are created through a double constitutive horizon, namely ego and alter ego (self and other). Individuals create and co-create their modes of being experience) in relation to others and also observe and differentiate themselves from others. For this reason, it has to be considered that “Communication, “defined by and embodied in those speaking of it, thus becomes a

fundamentally local and self-referential phenomenon” (Krippendorff 1996:312)¹³. The communication scholar can therefore not adopt an external observer position in theorising about communication, and has to account for the subjective mode of being that is necessarily integrated with the observations in a study. The factual, temporal and social dimensions relate to the different modes of being and the differentiation between self and other as it is (self-)represented in meaning and experience that arise from these relations, as shown in Table 1.1 below.

Table 1.1: Horizon, meaning-constitution and communication in the three dimensions of meaning and experience

Three dimensions of meaning and experience			
	Fact dimension	Time dimension	Social dimension
Double constitutive horizon:	Horizon of self-reference Horizon of external reference	Horizon of the past Horizon of the future	Horizon of Ego Horizon of Alter Ego
How meaning is constituted (Luhmann 1990:36-39)	Meaning appears materially or through objects in “Otherness; in being one thing and not another” Or Meaning appears through a theme used in a communication system that is differentiated from a background of other potentialities	With factual identities fixed in their own temporal reference schemes, such as calendar dates In the present meaning extending into the past or future can be presented to the system (i.e. necessary steps to actualise future objective can be selected in the present).	Mutual recognition: Non-ego is recognised as another ego and is experienced as the bearer of its own albeit different experience and perspectives of the world.
Meaning references can be thematised in communication (Luhmann 1995:157)	Meaning references are condensed into themes. The system’s connectivity is improved: contributions to themes can be more easily distinguished and selected.	Themes and contributions to a theme can be recursively recalled and anticipated. Themes are old or new; they can become obsolete.	When the theme is moralised in communication: the contribution refers to the conditions according to which one approves or disapproves of other and the self (Luhmann 1991:84) Mutual blame: “morality indicates the conditions under which persons can praise or blame another and themselves (Luhmann 1995:82)

Source: Laflamme (2008:73)

¹³ See Krippendorff’s (1996) paper entitled “The Second-order Cybernetics of Otherness” as well as his paper entitled “A Recursive Theory of Communication” (1994) for further explanation of the implications of second-order cybernetics for epistemological and ontological considerations.

The communication themes referred to in Table 1.1 are of particular significance, as they create expectations of understanding and further communicative actions. The past dimension of communication themes create points of recursivity – in other words, points of reference that differentiate between present, past and also future expectation. This will be further illuminated in the conceptualisation of key terms in the study, and will be addressed in the theoretical chapters that follow. The purpose of including Table 1.1 at this early stage is to provide a link between the philosophical orientations and the conclusions of the study. The discussion of the theoretical orientation in this study below aims to identify further links between constructivist epistemology and cybernetics as a meta-theoretical perspective.

1.3.2 Theoretical orientation

Cybernetics forms the broad meta-theoretical paradigm for the purposes of this study, and all other theoretical discussions are within this framework in this study. Ritzer (2000:321) states:

The most prominent systems theorist in sociology is Niklas Luhmann (1927-1998). Luhmann developed a sociological approach that combined elements of Talcott Parsons's structural functionalism with general systems theory and introduced concepts from cognitive biology and cybernetics.

The theoretical chapters as well as the concluding chapter in this study focus on the re-assessment and re-development of cybernetic concepts for the purpose of further theoretical and conceptual development within communication theory as a field. The selection of cybernetics as the theoretical paradigm in this study requires that the interdisciplinary and transdisciplinary integration of theoretical premises and application occurs. As Scott (2001a:412) states:

The power of cybernetics as a transdiscipline is that it abstracts, from the many domains it adumbrates, models of great generality. Such models serve several purposes: they bring order to the complex relations between disciplines; they provide useful tools for ordering the complexity within disciplines; they provide a 'lingua franca' for interdisciplinary communication; they may also serve as powerful pedagogic and cultural tools for the transmission of key insights and understandings to succeeding generations.

The interdisciplinary character of communication theory as a field has in itself never been disputed. Van Leeuwen (2005:3-18) distinguishes three models of interdisciplinarity, namely centralist, pluralist and integrationist models, and these are described here in brief. The centralist model is essentially a model of the relation between different autonomous disciplines. The specialist theoretical frameworks and methodologies are at the heart of the epistemological identities and values of centralist models. In pluralist models the issues and problems are central, and it is recognised that these may rightfully belong to a number of

different disciplines. The pluralist model seeks to bring such disciplines together as equal partners, instead of incorporating the elements of other disciplines into a “centralist” discipline. Like the pluralist model, the integrationist model focuses on problems rather than methods and brings together researchers from different disciplines. But here it is recognised that no single discipline can satisfactorily address any given problem on its own. As a result, disciplines are seen as interdependent, and research projects involve team work with specific divisions of labour and specific integrative principles. An integrationist model is represented in this study.

Krippendorff (1996:311) argues that cyberneticians apply the principles of cybernetics to themselves. Given this, it can be asserted that the philosophical and theoretical orientations in this study are therefore aligned throughout this study. The methodological orientation of the study is described in the section that follows.

1.3.3 Methodological orientation

It has been stated in the discussion of the purposes of this study that its focus is on theoretical and conceptual development within communication theory as a field of study. NDSOs have also been identified as an industry that will be explored by developing Luhmann’s theorising about the improbability of communication. The information relating to the identification of communication themes, network structuring and most of the other dimensions of communication that are addressed in this study has been obtained through direct and indirect experience with NDSOs, as most (adult) individuals have at some stage, whether directly or indirectly, been in contact with members of an NDSO. Informal participant observation in Avroy Shlain Cosmetics (over a period of three years), and also GNLD, contributed to the orientations and theoretical orientation included in this study. Other informal observations were through engagement with prospective and existing members of Tupperware, Honey Jewellery, Annique, Amway, Avon, and Bioway. The membership of Avroy Shlain, in particular, included participation on both distributor and group distributor levels, which included many communicative activities, such as training, small and larger group meetings, public meetings, product demonstrations, focused conversations, and ceremonies. The statistical information was obtained through direct telephonic and electronic contact with the Direct Selling Association of South Africa (DSA SA) and also the World Federation of Network Direct Selling Associations (WFDSA).

The statistical information confirmed that the existence and sustenance of NDSOs are improbable, which identified this international industry as a suitable phenomenon for the theoretical and conceptual development of this study.

As regards the broader theoretical purpose of this study, it can be noted that Scott (1996) explores how second-order cybernetics may serve as a methodology for exploring modes of being. It is apparent from Henning's (1972:137) argumentation that a cognitive systems approach to methodology¹⁴ is imperative when measurement is not possible, as is the case when studying individual cognition, as he states: "a black box strategy should be discarded in favour of attempts at constructing more comprehensive models. ... The cognitive structure or memory is, assumed to be an internal representation, a model, of the social structure of which he is a part". It is therefore argued that the study of communication as problem has to include the study of representative systems within individuals, and since these systems cannot be observed, cognitive methodology with its constructivist epistemological foundations is the only option. Kordeš (2005:216) provides a further link between second-order cybernetics, constructivist epistemology, and cognitive methodology:

Von Foerster's experimental methods to investigate cognitive processes emerged within the framework of the following assumptions: first, that knowledge acquisition, or understanding, is subject to experimental investigation; second, that mental activity is embodied in multiple (biological, individual, social and cultural) contexts; and third, that the proper investigation of mind is not mind as ontological entity, but mind as a recursive mental activity., we now have new possibilities to investigate mind through the coordination of the activity we call living, and as both a process and product. In addition, we can see that mind makes possible language and our talk about living, and that these mental activities also are subject to investigation.

The methodology in this study is therefore essentially a cognitive methodology,¹⁵ which is described by Scott (1996:401) in the following way: "By 'cognitive methodology', I refer to cognitive operations that may be carried out, constructively and reflexively, that is, with full control and awareness, by the observer. ... Understandings are personal knowings". Scott (1996:396) also cites Varela's (1976) position on constructivist methodology and second-order cybernetics when he states:

If everybody would agree that their current reality is a reality, and that what we essentially share is our capacity for constructing a reality, then perhaps we could agree on a meta-agreement for computing a reality that would mean survival and dignity for everybody on the planet. .. Thus self-reference is, for me, the nerve of this logic of paradise.

¹⁴ Cf. Henwood and Pidgeon (1994); Simmons (2006) and Reynolds and Perkins (1987).

¹⁵ See Reynolds and Perkins (1987); Hirschman and Douglas (1981); Larsen-Freeman and Cameron (2008); Simmons (2006); and Henning (1972) for other considerations relating to the utilisation of cognitive methodology. Also see Verwey (1990) for her discussion on the methodological implications of a systems approach.

In a similar vein, it is acknowledged that this study offers an interpretation of its own theoretical arguments, and that the conclusions and findings relating to NDSOs are subjective. However, the conceptual models created in this study can be applied to other communication phenomena for further application to existing communication theory within the field of communication theory in particular. The section that follows identifies the major contributions of this study.

1.4 CONTRIBUTION OF THE STUDY

The study aims to develop a theoretical explanation for the existence of NDSO from within communication theory as a field. Existing studies focus predominantly on the operational, tactical, and strategic dimensions of network direct selling from within other disciplines, such as marketing, sociology, or business management, while this study aims to develop an explanation for how communication can transform the improbable into the probable, as is witnessed in NDSOs.

The study also aims to explore theoretical developments from within a meta-theoretical perspective to make a contribution to communication theory as a field.

1.5 EXPLANATION OF KEY TERMS

It is important to deal briefly with the term “inter-referentiality” in the introduction to this section. The interdisciplinarity of the theoretical arguments presented in this study necessarily means that many terms that were developed within other scientific disciplines are redeployed here. The term “inter-referentiality” was created by Guddemi to refer to terms that generate their own meaning in relation to other terms within a given context (Bopry 2007). This term is re-addressed in relation to other similar terms in Chapter 4. At this point is imperative to show that the key terms identified in this section are defined and developed in relation to each other and to the context of this particular thesis. Note that these terms are not discussed in order of relevance but rather in terms of their relation to each other insofar as the description of one co-creates the description of a term that follows. The interdisciplinary nature of this study means that it incorporates a multitude of terms that are identified, described, and also applied within the discussions in each chapter. Therefore, the key terms identified and described in this chapter are selected for the purpose of providing a background for the chapters that follow and to orient the reader with respect to the content in the following chapters.

1.5.1 Communication

Several definitions of communication are presented in this study in relation to communicative contexts identified within communication theory as a field. For the purposes of the study, however, and from an improbability perspective, communication is defined as the unity of the synthesis of three selections in particular, namely information, utterance and understanding (which may include misunderstanding), steered by a fourth selection, namely expectation, based on Luhmann's theorising (1986; 1995; 2002). These selections are discussed and developed individually and ultimately jointly in the chapters that follow. It is shown that information is constituted by all sensory input into individual and social systems and that such input may occur both consciously and unconsciously. Utterance refers to both verbal and non-verbal, present or absent perception of information. Understanding refers to the creation of meaning within and between sub-systems within the individual, as well as within, between and among other social systems. Understanding creates *meaning* that is closely related to the selections systems make. Action, then, only has meaning to the extent that a selection is made from a range of potential actions, as it is determined by the attribution of meaning by particular individuals to particular actions. The description of self-reference a little further on provides further clarification. It is also shown in the chapters that follow that, as Luhmann (1981:125) argues, "language specializes in creating the impression of mutual understanding as the basis for further communication, however fragile the grounds for that impression may be". It will be shown that systems represent the transformation of the improbability of communication into the probable (Luhmann 1981:127), by creating the expectation of understanding through the medium of language, whereby meaning itself becomes the medium (Laflamme 2008). Since information can be communicated (uttered) in a variety of ways, it is improbable that individuals are free to choose any particular way (Ritzer 2000:326). It is therefore argued that communication is improbable.

Expectation refers to the anticipation of communication outcomes within, between and among individuals and social systems, whether such expectation is conscious or unconscious (Luhmann 1995:96-97). As is shown below, expectation is the key to the creation of system boundaries. The most important point is that communication is created through selections that individuals make and that the selections are made at any given moment and on a continuous basis. The distinction between first-order and second-order cybernetics provides more clarity on this explanation of communication.

1.5.2 First-order cybernetics

The distinction between first-order and second-order cybernetics was articulated only when the latter term was created by Von Foerster in 1972. Initially, the study of systems was the study of *observed* systems. Second-order cybernetics developed as the study of observing systems, with among other things, the realisation that it requires a brain to study a brain. It was argued, in reference to Heisenberg's principle of uncertainty, for example, that the observer influences the observation in the act of observing. However, some fundamental insights were gained from first-order cybernetics and are as applicable in the study of observing systems since certain fundamental principles, such as Ashby's law of requisite variety as well as the understanding of the implications of system close apply to broader understanding of self-creating systems. Although cybernetics has developed in different direction with different areas of specialisation, as discussed in Chapter 3, cybernetics as a meta-theoretical and interdisciplinary perspective in its entirety contributes to the study of all systems that impact on each other in lesser or greater degrees.

1.5.3 Second-order cybernetics

Second-order cybernetics places the emphasis on *observing* systems. One of the milestones of second-order cybernetics is that it separates scientific knowledge from general knowledge through the incommensurability of the subject and the object of knowledge, while it also correlates scientific knowledge to general knowledge in terms of the complementary emergence of subject and object interaction (Aguado 2009:59). Second-order cybernetics is grounded in constructivist epistemology. It emphasises the observer-dependence of all knowledge and disclaims objectivity. The emphasis on selections from a second-order cybernetic stance implies contingency, because alternative selections are always possible. This necessarily means that systems increase in complexity as more potential selections emerge. Systems have no direct connection with their environment and deal instead with representations of the environment (Ritzer 2000:323). *This is a very significant point within the framework of this study.* The conceptual model created in Chapter 4 aims to show how multiple biological and mental systems create the composite unity of individual as well as social systems. The primary and secondary mental systems that create further complex systems within individuals and other social systems are identified and described as *representative* systems.

1.5.4 Complexity and complex systems

The essence of complexity and complex systems is the understanding that direct causal relationships between system elements cannot be determined. The typical and general properties of complex systems are non-linearity, improbability, unpredictability and sensitivity to initial conditions. These properties have mostly been discovered in natural and even non-living systems, although the application of complexity theory principles within cybernetics shows that these principles apply to systems within individuals and even social systems. Chaos theory, for example, has been broadly applied to the study of organisations, and is generally known to be applied as such. Within second-order cybernetics, individuals are described as non-trivial machines (Von Foerster 2003) and as Krippendorff (1996:316) states, in reference to Von Foerster: “Nontrivial machines are analytically (I prefer analytically) indeterminable”. An understanding of complexity and the indeterminability of individuals necessitates a cognitive methodology such as second-order cybernetics for the study of communication within, between, and among individuals. The term “knowledge cybernetics” is used as a new metaphor for social collectives and complexity theory is used in collaboration with second-order cybernetics.¹⁶ The emphasis on self-reference within autopoiesis aims to provide further clarification.

1.5.5 Autopoiesis

Autopoiesis is a theory of biological (living) systems created by Maturana and Varela (1980) to explain how living systems create themselves. The most significant implication for the development of this theory of biology and cognition is the understanding that individuals are also living systems, and whatever applies to other living systems applies to them. Individuals create and are created by their biology to a more significant extent than they are conscious of. The application of some of the premises within autopoietic theory makes it more apparent that the transmission model of communication applies to unconscious communication processes, particularly within and between individual’s mental (psychic) systems. Such transmission occurs on concrete levels – for example, when an individual experiences pain, as well as on unconscious levels, for example when an individual experiences guilt. The affective (emotional) representative system that is identified (among other things) in the application of complexity theory, for example, is a measure of many other biological and psychic systems states, just as the body temperature is a measure of a person’s general

¹⁶ See Yolles (2006) for a comprehensive discussion on knowledge cybernetics as it occurs through complex systems within self-creating systems.

wellbeing as co-determined by many systems operating simultaneously. Autopoiesis refers in essence to the self-creation of systems, and while it was developed to explain this process within biological (living) systems, and while its application to social systems is still contentious, it becomes clear in the discussions in the following chapters that social and cognitive systems also self-create. Self-reference is probably the most fundamental concept within second-order cybernetic and social autopoietic theory.

1.5.6 Self-reference

Geyer (1995:15) points out that “the important concepts of second-order cybernetics all start with ‘self’, if not in English, then in Greek (‘autopoiesis’)”. Luhmann (1995:33) states that “The concept of self-reference designates the unity than an element, a process, or a system is for itself”. What is defined or understood as such a unity is determined by the boundary a system self-creates. Just as through evolution the human body creates its concrete boundary by the creation of its physical shape and its appearance that distinguishes it from other individuals, in the same manner individuals create their internal mental (psychic) systems, broadly referred to as personality, even if such self-creation occurs through initial conditioning and at an unconscious level during the founding years.

The central mental (psychic) system, namely the ego-system, forms the central perceptive system through which individuals experience a given system state at any given time. All information input is processed or computed in relation to the self as central point of reference. An individual can therefore not literally feel what another feels, but can relate to what she perceives another feels in relation to an apparently similar experience. However, because multiple biological and mental (psychic) operate concurrently and because these operations also occur within in social systems and thus concurrently with other individuals’ inner systems operations, all these various systems cooperate and co-create themselves continuously. Several other concrete as well as abstract systems may impact on the self-creation of individuals’ ego systems, and on different dimensions of these systems (such as self-esteem, self-worth, self-confidence, and so forth). Ultimately the individual’s ego system becomes the central self-referential system, co-created by other biological, as well as primary and secondary mental (psychic) representative systems and also social systems. Self-reference is created in all *operationally closed systems*, including subsystems within the individual, as well as other subsystems within society, which becomes points of *recursivity*. These two terms are described below.

1.5.7 Recursivity

One of the major contributions of first-order cybernetics is the understanding of the ubiquitous circular processes that occur within systems of all kinds. Recursivity means that a system can reproduce its components only by reference to past and future events of the same kind. Recursivity, in other words, refer to points of reference that become imbedded in the system memory. Such recursivity again occurs in both concrete and abstract systems, and within subsystems, on both conscious and unconscious levels. Every bit of new information input into a system creates new points of recursivity. Information input occurs through various biological (sensory) as well as mental representative systems, and this input creates further points of reference or further differentiation at various levels. The key understanding is that these systems are all operationally closed, as explained below.

1.5.8 Operational closure

Open systems are systems that interact with their environments, or systems that receive input and produce output to their environments (which include other systems). Closed systems have been described as systems that have very little interaction with their environment. However, the terms open and closed require additional clarification. Just as a biological (living) (sub-)system, such as a digestive system, cannot digest food eaten by another person, information perceived by individuals cannot become part of the unity of the synthesis of communication and hence understanding in another person. In other words, one individual cannot think in another person's head – there are several operationally closed complex sub-systems within individuals' cognitive systems (minds).

Systems may be open to receive information (sensory or other) input and can be described as informationally open, although the processing or computation of information (or material) occurs only through closure. Similarly, when individuals create social systems, information is co-selected as such by the members of such a system where meanings are co-created within the boundaries of such a system, and therefore such systems are also operationally closed, yet informationally open. All living systems are therefore considered to be both open and closed. System closure is usually determined by the boundaries created by the system at different levels of abstraction, in other words within a range of concreteness and abstraction. The operational closure of the system is determined by the boundaries created by the system. Individuals create boundaries such as values, for example, that extend to the creation of social system boundaries that are also operationally closed through the co-

creation of these boundaries by the system's members. Society consists of multiple social systems of many kinds that operate on many different levels, but operational closure applies to all individual and social systems, as it applies to natural systems. The continuous creation of system boundaries determines the operational closure of the system, because most systems remain informationally open.

1.5.9 System boundaries

System boundaries are concrete or abstract, and can be described as the differentiation between the system and its environment. Human individuals have their physical bodily structure and appearance, for example, that distinguishes them from other individuals and creates their identity. On a more abstract level, individuals have their individual personalities that determine further system boundaries, such as values, ambitions, emotions, and so forth. As such, individuals self-create these boundaries. With reference to Pask's conversation theory, for example, individuals also create boundaries that relate to temporal, social and factual dimensions (abstract boundaries). For example, an individual decides *what* is possible as determined by her *self-reference*. If the individual decides it is possible to earn a lot of money through direct selling, she then has to determine *how* this is possible, which determines further boundaries, or the extension of existing boundaries. Boundaries can therefore also be described as the conscious or unconscious creation of limitations, in relation to the information represented and selected from within other social systems. If the individual, for example, selects information, utterance and understanding from the selection of expectation that she could be successful, the expectation then co-creates further information, utterance, and understanding to actualise the reality determined by the selection of the system boundaries. In other words, the individual will attribute meaning to other incidents and events that correlate with the expectation of success, such as friends agreeing to attend a product demonstration; or frustrations in the formal work environment; or the increase in interaction with other sales distributors, and so forth. It is significant to note the relationship between self-reference and system boundaries in particular at this point. Systems create themselves, by creating their self-reference, their boundaries, and their points of recursivity, whether this occurs consciously or unconsciously, intentionally or unintentionally, because of their operational closure.

1.5.10 Network Direct Selling Organisations (NDSOs)

Network direct selling is also referred to as multi-level marketing (MLM), and refers to organisations that do not sell their products through conventional distribution systems, such as retail outlets, but through individual people who become members or distributors, and who typically sell these products to their friends, family, colleagues, other acquaintances, or even strangers. The major attraction of NDSOs is that members make a profit not only from the products they sell, but also from the sales of other members they recruit to become members of the same organisation. Theoretically, the income potential is limited only by the members' ability to recruit other members and to create pyramid-like structures that generate what is referred to as *passive income*. Individuals are typically encouraged to transform personal networks into commercial networks for this purpose. Such networks increase the frequency of communication between and among members of these organisations, but also between individuals and members of their other social networks.

1.6 CONCLUSION

The introduction to this study aimed to show that the communication processes conducted in NDSOs, which create and sustain the industry, require further investigation. The discussion on the philosophical orientation of this study aimed to show that there are many diverse worldviews. The central understanding is that any approach or orientation is determined by the selections made in a study, which necessarily determine its findings, outcomes and contributions. Given that selection of information, utterance, understanding, and expectation is observer-dependent, the following words by Von Foerster (2003:294), who was one of the founders of cybernetics, seem apposite as a light way of concluding this introduction, and of prefacing the weighty material to follow:

I was once asked how the inhabitants of such different worlds as I sketched before, (the inhabitants of the worlds they discover, and the inhabitants of a world they invent) can ever live together. Answering that is not a problem. The discoverers will most likely become astronomers, physicists and engineers; the inventors family therapists, poets and biologists. And living together won't be a problem either, as long as the discoverers discover inventors, and the inventors invent discoverers. Should difficulties develop, fortunately we have this full house of family therapists who may help to bring sanity to the human family.

In this study, the world is viewed as inhabited by inventors who discover the reality they create as individual and social systems through communication. Cybernetics will be identified and described as a meta-theoretical perspective that orients the discussions in the chapters that follow. Within cybernetics, a distinction will be made between first-order and second-order cybernetics, although the theoretical utility of both will be explicated. It will also

be shown that further investigation of complexity theory may shed some light on the selections individuals make, based on the understanding that individuals are composite unities of operationally closed biological and mental sub-systems.

NDSOs will be identified as improbable social systems. The theoretical and conceptual frameworks developed in the chapters that follow will be applied by presenting a second-order cybernetic explanation for the existence and sustenance of the network direct selling industry. The study commences with a description of NDSOs from tactical, operational and strategic perspectives, as found in the existing literature, supported by the latest statistical information and analysis.

CHAPTER 2

NETWORK DIRECT SELLING ORGANISATIONS: DEFINITION, DESCRIPTION AND ORIENTATION

2.1 INTRODUCTION

There is no disputing that network direct selling organisations (NDSOs) have become a significant phenomenon in scholarly inquiry. Parkhe, Wasserman and Ralston (2006:560) state: "The ubiquity of networks, and networking, at the industry, firm, group, and individual levels has attracted significant research attention". NDSOs are distinguished from other forms of direct selling in that the emphasis in network direct selling is placed on the recruitment of distributors to consume and sell the products (Lan 2002:166)¹⁷ The international sales statistics presented by the Direct Selling Association (DSA), of which most direct selling organisations are members, represent figures for all direct selling organisations, and they reveal that most members operate through multi-level marketing that makes the recruitment of other members imperative, as opposed to single-level marketing¹⁸ where recruitment is not a prerequisite. (DSA 2010).

The information presented in this chapter is based on existing literature on direct selling as a phenomenon and statistical and operational information obtained from existing NDSOs, including some of the existing representative associations, such as the DSA, WFDSA and the Direct Selling Educational Foundation (DSEF).

International statistics from the World Federation of Direct Selling Associations (WFDSA) compiled from statistics received from its affiliated 62 National Direct Selling Associations worldwide reflect global retail sales of US\$117.5 billion through the activities of 74 million salespeople globally (WFDSA 2011). Direct Selling companies saw growth in recruiting and retention rates in 2009, with statistics reporting that 600,000 new distributors are joining the industry across the globe weekly (WFDSA 2011). Other statistical information presented in this discussion indicates that most individuals engaging and participating in direct selling not only do not benefit financially but suffer losses in the process. The conspicuous question that

¹⁷ The distinction between direct selling, multi-level marketing (MLM) and network marketing is a contentious matter that is addressed by Sheffield (2003) among many others. Any engagement in these continuous debates is not considered relevant for the purposes of this study.

¹⁸ Cf. Brodie, Stanworth and Wotruba (2002).

arises is how an industry that offers little or no material benefit to the majority of its members accomplishes the kind of outcomes it does.

As the content of this chapter demonstrates, most of the existing studies relating to direct selling have addressed matters relating to marketing and selling aspects thereof, with an emphasis on the interaction(s) between sellers and buyers. Clear definitions that direct study towards the communication processes and practices involved in direct selling have not emerged, as is evident from the information presented in this discussion.

Therefore the overall purpose of this chapter is to provide a clear definition, description and categorisation of NDSOs in particular to enable the identification of communication behaviour that creates and sustains this type of organisation. Bauer and Miglautsch (1992:8) say that the criteria for good definitions are that they are “clear, precise and complete”, and that the benefits of such a clear definition of NDSOs will be that 1) it distinguishes these from other forms of selling organisations, 2) it focuses theory development and testing in NDSOs as a particular type of organisation, and 3) it effectively communicates what NDSOs are to a variety of audiences. The purpose in this discussion is to provide a description of NDSOs specifically, but as this particular form of direct selling organisation evolved from direct selling *per se*, NDSOs as they exist at present can only be assessed and hence described by studying them as they developed. Therefore the discussion departs from a preliminary description of what direct selling in essence is, from two perspectives. First, it is held in this discussion that a clear understanding of network direct selling cannot be accomplished without considering the NDSOs’ perspectives that inform the independent distributors’ perspectives. Therefore, direct selling is described as it occurs from an independent distributor’s perspective. Second, direct selling is described from a consumer perspective to demonstrate the communication actions and behaviour in society’s engagement with the phenomenon of direct selling.

Peterson and Wotruba (1996) developed a framework that is used in this chapter, first to identify some of the aspects of direct selling that have been investigated in existing studies, in order to assemble an impression of the phenomenon, and second to reveal the limitations in existing studies. The latter will give shape to the subject matter in the following chapters.

The primary purpose will be a comprehensive definition of direct selling, and a description of NDSOs. This definition and description will then inform the content of the following chapters, which study the communication practices in NDSOs, after careful consideration of all their aspects and dimensions. This is accomplished by first exploring the origin and development of direct selling and then clarifying the differences that exist in its contemporary forms and applications, as is evident in the content of this chapter.

The secondary purpose of the chapter is to present the current logistical and operational information about direct selling, and NDSOs in particular that directs the focus in the following chapters towards the identification of the current communication, and more specifically the persuasive communication content. This in turn creates the communication actions within NDSOs that that evoke criticism from other social systems and domains, for various reasons, such as the commercialisation of personal relationships, or objections from retail distributors, as some cases show.

The figures and tables presented in this discussion accomplish that purpose by identifying the persuasive environment, in particular that which sustains the continuing growth in the direct selling industry presented by the statistical information in this chapter. Figure 2.1 below indicates the flow of the conversation in this chapter.

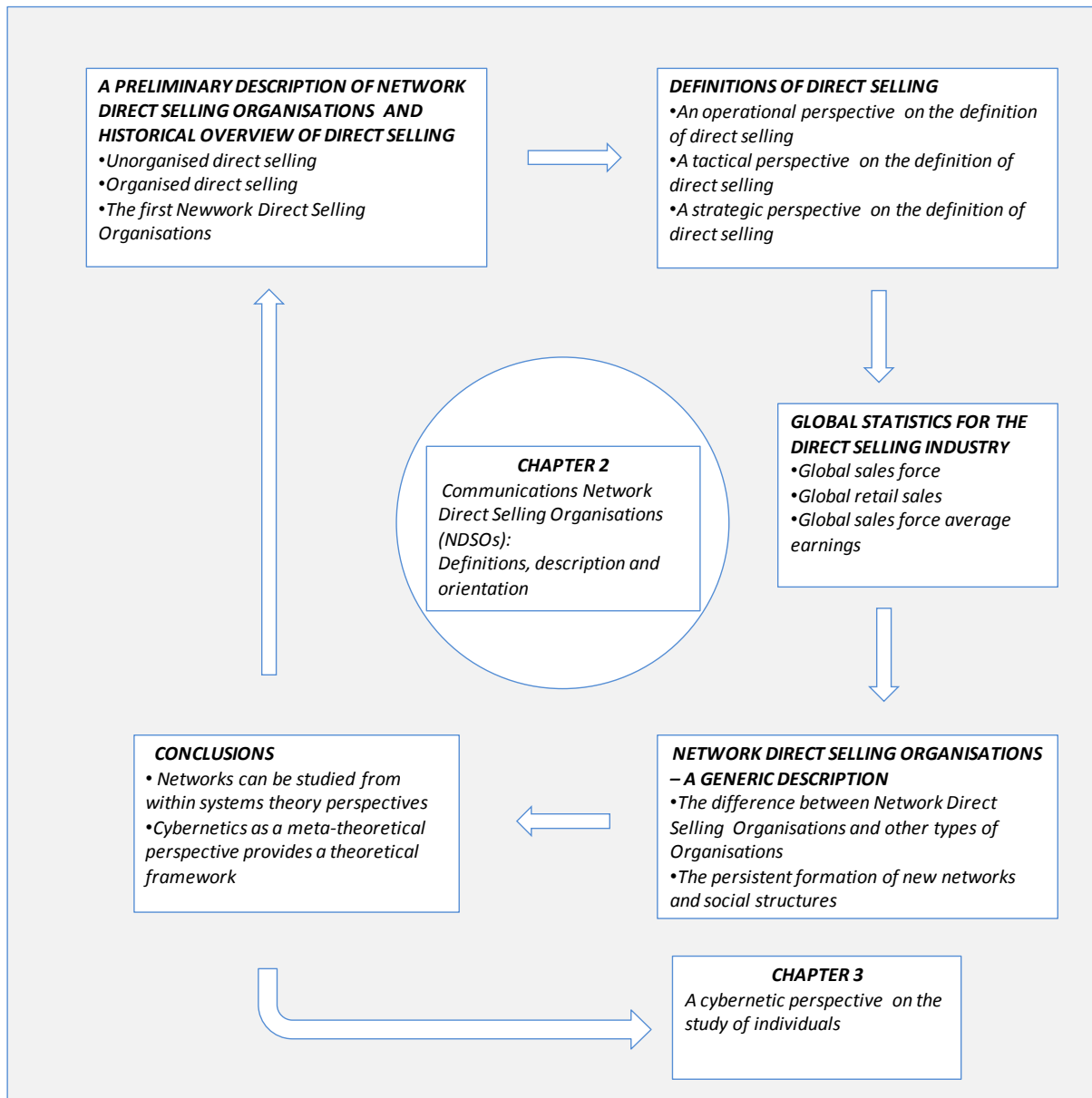


Figure 2.1: Chapter diagram

2.2 OVERVIEW OF THE CHAPTER

The discussion in this chapter commences with a preliminary description and definition of NDSOs. These organisations are further defined from operational, tactical and strategic perspectives. The global statistics are indicated and the statistics available for South Africa in particular are presented in this chapter. A generic description is created by drawing specific distinctions between NDSOs and other types of organisations. By their name, NDSOs direct the theoretical investigation in the study towards Network Theory and cybernetics as the meta-theoretical perspective towards the study of communication in this study.

2.3 A PRELIMINARY DESCRIPTION OF NDSOs

Though direct selling has been identified as one of the oldest methods of commercial distribution known to humankind, it is still not well understood, and the "... definitions that do exist are frequently ambiguous, contradictory, or simply inaccurate" (Peterson & Wotruba 1996:1). This may be the case because of the various different sources and purposes of such definitions that are predominantly marketing- and sales-oriented.

Direct selling does not however commence with interactions between sales distributors and consumers. An individual becomes a direct sales distributor after certain interactions between a particular direct selling organisation and a particular individual culminated in some kind of agreement that initiates and pre-determines the communication between sellers and buyers that follows to a certain extent. It can be said that all sales organisations have certain employer-employee relationships that pre-empt the engagement between salespersons and consumers, and while the relationships between individuals and organisations, particularly sales organisations, are explored in the final chapter, it is paramount to the definition and understanding of direct selling to consider the factors that ultimately create the communication between sellers and buyers in direct selling.

The historical overview provided below explains how direct selling organisations evolved and how sales distributors became independent salespersons not employed by direct selling organisations. Therefore the communication between sales distributors and consumers in direct selling takes on a different character, since the communication presented by independent sales distributors cannot be analysed as similar to the communication between sellers and buyers in other sales organisations. The argument presented here is that direct selling also requires definition that places an emphasis on the engagement between direct selling organisations and independent distributors. Therefore, the description of direct selling below presents two perspectives: an independent distributor perspective and a consumer perspective.

As Biggart (1989:47) states, most direct selling organisations became NDSOs by the late 1950s, with the sponsorship lines, status hierarchies and character they have at present. The first description of direct selling, from an independent distributor perspective, offered below therefore aims to provide an understanding of how direct selling typically, but not exclusively, takes place in NDSOs.

An individual, called Mary for the purposes of this example, is approached by a friend called Susan, who suggests they meet socially, and Susan visits Mary at her home. After exchanging general information determined by their particular relationship, Susan tells Mary that she has become involved in an activity that provides her with opportunities to earn unlimited income, ultimately, while initially providing her the support of a social network that guides her towards the accomplishment of several material and social goals. Mary is familiar with the name of the organisation and looks at the aesthetically appealing product catalogue that displays home care products. Susan informs Mary of the competitive advantage of these products, verified by the international accolades the organisation has earned. Susan enacts her enthusiasm and excitement by narrating her experiences as an independent distributor with her own business and shows Mary her business card, sales materials and short- and long-term potential rewards. She takes out a piece of carpet, stains it with black shoe polish, and applies a product that effortlessly removes the stain that is usually not easily removed.

She also tells Mary about the other independent distributors she has met and with whom she interacts frequently to exchange ideas and experiences to accomplish the successes they have or progress to the levels they have respectively. She testifies how she has been gaining benefit from utilising the products herself and gives her feedback from other friends they have in common who have also been satisfied with the products and have been purchasing them from her regularly. Her testimony also assures Mary that the effort and risk involved is almost eliminated by the potential rewards as she tells her about her role model, Charlie Bolton (real name), who has not only become a great success financially, but has also enriched the lives of many other independent distributors in several ways and who shares his knowledge freely. Susan then suggests that Mary accompanies her to a function where she can experience what she has been told personally. Mary agrees that it involves no risk and not too much effort and commits herself to attending a function the following Saturday when she has time to spare.

The function Mary subsequently attends with Susan is a cheerful and demonstrative occasion where several women who both Mary and Susan identify with and relate to celebrate and share their experiences and goals. Finally, Mary decides that she will become an independent distributor for the same direct selling organisation as well, since she has been persuaded by the overall experience and believes that the potential rewards are multiple, realistic and obtainable. Mary establishes her own business through membership of the organisation concerned, and continues to purchase and sell products offered by this

organisation, while undertaking to recruit new members in a way similar to her recruitment experience.

This description of how an individual becomes involved with a direct selling organisation is typical and an infinite number of variables exist, pertaining to unique personal attributes individuals possess, accompanied by and combined with other unique as well as common factors that play certain roles, and determined by the complexity of each context they exist in. The typical example of direct selling from a seller-buyer (consumer) perspective that follows next demonstrates the existing orientations towards the study of direct selling.

Consumers generally frequent retail or other outlets, where they are presented with a variety of products and/or services and exercise their freedom of choice to purchase based on several individual and/or combined factors such as price, quality, brand, personal preference, promotions and so forth. Direct selling, on the other hand, involves situations where particular products or services are offered directly to individuals by a person known to them, away from a fixed retail location without the option to purchase other similar product brands or other product categories.

A typical example of network direct selling, from a consumer's perspective, would be where an individual is approached by a friend who sells Avroy Shlain Cosmetic products and presents her with a product catalogue or samples of products with a request to make a purchase. The friend is well known to the individual, the product compares favourably with other similar products and is relatively inexpensive, and therefore the individual places an order to purchase the product supported by the knowledge that the transaction benefits the individual personally. As Bhattacharya and Metha (2000:361) confirm, distributors in direct selling recruit and sell products among their friends, relatives, and acquaintances. Therefore, the situation presented in this example immediately poses different sets of communication variables dependent on, among other factors, the kind of social proximity and relational dynamics involved in different social and/or cultural circumstances and/or environments.

The two examples above explain the necessity of the dual orientation towards the understanding and description of NDSOs in this study, since the communication activities that occur between independent sales distributors and consumers are necessarily informed and pre-determined by the communication activities that occur between direct selling organisations and individuals who become independent sales distributors, as well as by the

communication activities that take place between and among independent sales distributors that differ from other organisations (as explored in the next chapter).

The historical overview below shows how different kinds of direct selling evolved, though it is important to state at the outset that what is referred to as network direct selling has become a major source of controversy. In NDSOs, also referred to as network marketing organisations, distributors are compensated on the basis of their group's business volume, which is calculated using their own business volume or sales and their recruits' group business volumes. The main aspect of these organisations that has evoked considerable debate, according to Bhattacharya and Metha (2000:362), is their tendency to form closely knit social groups to the extent that the distributors' lives revolve primarily around parties, meetings, rallies, conventions and other occasions organised under the network direct selling organisational banners. Therefore the communication within this particular kind of direct selling organisation is the focus of this study. A better understanding of the different kinds of direct selling organisations that exist can be derived from the historical overview of the development of this industry.

2.4 A HISTORICAL OVERVIEW OF DIRECT SELLING

Direct selling had no network characteristics initially and as an economic activity it can be traced back across many centuries. Biggart (1989:20) states: "Direct selling is an ancient form of enterprise. For thousands of years peddlers have toted water on their backs and carts for sale to consumers; and for thousands of years peddlers were largely men, mostly itinerant, and independent of each other."

Biggart (1989) has described the key factors that played a part in the development of direct selling as it occurred in the United States of America, and she is therefore a principal source in this overview because the USA reflects events that reverberated globally. She presents a chronology of unorganised direct selling, followed by organised direct selling, the development of "home office" and "branch office" direct selling organisations, entrenchment in the 1920s, further organisation in the industry, effects of the great depression, confrontation between the state (United States) and the industry, the independent contractor solution, and the specification of phenomena that occurred in the early modern era, such as the party plan and the establishment of the first NDSO.

2.4.1 Unorganised direct selling

The forerunners of current direct selling distributors were referred to as colonial peddlers, and they were salesmen who sold products such as tools, tea, and ointments from door to door. It is significant to note that until the 1840s these peddlers were an important distribution channel for farmers and general stores, as they were also sources of information and social contact to rural populations with limited access to retail outlets in towns and cities (Biggart 1989). Over the following two decades the development of railroad and telegraph systems changed the exchanges between producers and consumers. Reliable supplies of merchandise prompted the establishment of more retail outlets, along with new techniques of mass marketing, including department stores, mail order companies, and chain stores (Biggart 1989).

The character of direct selling changed at the end of the nineteenth century. The need for independent salesmen was greatly reduced, and after the Civil War salesmen typically sold only the goods of a single manufacturer or wholesaler, and as such became the first direct selling sales forces. David McConnel is an example of a salesman who marked the transition from unorganised to organised direct selling. He sold perfumes from door to door in New York from 1886 and later chose the name “Avon”, which is the world’s largest direct selling organisation in the beauty industry at present (Datamonitor 2009).

2.4.2 Organised direct selling

Organised direct selling emerged when manufacturers did not want their products to compete with others to the same extent, and employed salesmen whose financial success depended on selling their products exclusively. In reference to such manufacturers Biggart (1989:22) states:

In addition, some believed that a sincere personal approach or knowledgeable demonstration would show the goods to better advantage. Manufacturers tried to recapture the advantage of personal selling in an era of mass marketing, but under conditions that gave them some measure of control.

It is well known even at present that direct selling is still a strategy for marketing products with features that are apparent mainly through demonstration. In 1908 the well-known company Hoover was created in Ohio (About Hoover 2009). Garner (1996) observes that a sharp household division between a father-breadwinner and mother home-maker appeared. The Hoover salesmen would go from door to door to demonstrate the use of their new invention with great success. What is referred to by Bone (2006) as value direct

organisations can be distinguished from NDSOs, as demonstrated further on in the discussion. Direct selling organisations flourished in the 1920s when direct sellers believed they could compete favourably with retail establishments (Biggart 1989), and home offices were established.

Bone (2006:2) points out that as direct selling expanded in the 1920s, small town retailers in many towns across America were concerned that direct selling presented a threat, because they had to compete with visiting salespeople whose businesses did not have fixed overheads or investments in the community. Pressure was placed on politicians to institute trading licences and other restrictions, which most probably contributed to the development and establishment of regulatory bodies such as the Direct Selling Association and others that followed later.

These initial direct selling organisations had male founding members who identified the average middle-class married woman as a good target for the products they could offer and also that these sales involved mostly once-off product sales (Biggart 1989). As these sales occurred in the homes of the consumers, they fit the description of direct selling as person-to-person in nature, away from a fixed retail location. However, the characteristics of relationships that are prevalent in direct selling today had not yet developed. Manufacturers who needed a direct sales force at the time attracted distributors through circulars and advertisements in newspapers and magazines. Some people were persuaded by the promise of travel, independence and riches offered by these direct selling organisations that were loosely organised. The home office was the only contact the salesperson had, and no training in selling techniques or product features was provided other than what could be sent by mail.

2.4.3 The establishment of home office and branch office direct selling organisations

Fuller Brush Company was started in 1906, and in 1915, overwhelmed by its recruitment success, reorganised as a branch office company, which meant that a company established local offices (branches) that recruited and trained salespeople and assigned them to territories. This enabled the direct selling companies to also employ independent salespeople who received a percentage of the branch's sales as compensation for managing the office as well as profit from personal selling. Such salesmen receive support from the branch office. The major changes that characterised NDSOs as they operate at present occurred in the 1920s, however.

2.4.4 The 1920s: entrenchment

As it is at present, direct selling organisations were an established form of enterprise which most salespeople utilised as an opportunity to generate a secondary income. Although retail store clerks were doing better than direct selling distributors both in numbers and as a proportion of the direct selling occupation, they had a firm hold on its place in the economy.

Specific changes in direct selling brought about by these economic circumstances can be pinpointed as the reasons for direct selling in its present form. First, local branch offices were established that employed personal recruiters to attract distributors, rather than using advertising. The branch offices created a more formal and committed relationship between salespeople and organisations, something that was previously characterised by contact through mail and other messaging services (Biggart 1989). Second, it was easier to recruit direct sellers because work was scarce, and, third, companies were looking for a low-overhead distribution system.

Biggart (1989:30) shows that direct selling was aided, in America, by at least three factors: 1) women's need for labour saving devices in their homes that required direct sellers' demonstration, 2) the post-World War I labour oversupply and excess industrial production capacity and, 3) the impact of advertising that promised the opportunity for substantial income and a release from salaried labour, as was promised by direct selling organisations at the time. Expanded industrial capacity at this time, along with increasing efficiency, gave manufacturers the capability of supplying far more than the existing outlets could retail. Biggart (1989) explains that it was recognised that selling goods directly to the public created sales that would not have occurred had the initiative in the process been left to the consumer. Consumers were confronted by salespeople actively seeking out potential customers, and were presented products that they neither needed nor particularly wanted, but these salespeople persuaded them that they were essential purchases (Bone 2006:3) The Great Depression had a significant impact on the direct selling industry: Biggart (1989:32) claims that an estimated number of 3 000 direct selling firms went bankrupt.

2.4.5 The effects of the great depression

Bone (2006:2) observes that a combination of greater organisation in the direct selling sector, an improving economy following the Great Depression, and an organised reaction to

the restrictions placed on the direct selling industry led to its increasing development in the post-war era.

In 1931 Frank Stanley Beveridge, an executive with Fuller Brush, and Catherine L. O'Brien founded Stanley Home Products, inspired by the hardships of the Great Depression (Biggart 1989). At the time several developments, among them salesmen who took deposits without delivering the products, led to government intervention in direct selling organisations. Among the problems that arose were disquieting employment issues that direct selling organisations were anxious to resolve, and this resulted in the independent contractor solution.

2.4.6 The independent contractor solution

The determining change that occurred in the direct selling industry happened in 1935, when the independent contractor solution was presented at a general counsel meeting (Biggart 1989:40). Declaring distributors independent contractors who purchased products for re-sale meant that direct selling organisations would not have to deal with issues like a minimum wage, compensation, insurance issues, benefits or tax withholding. As Biggart (1989:40) remarks, the legal and financial necessity of making distributors independent contractors became the imperative to obtain a cheaper labour supply. Because they were by definition not employers, direct selling organisations could not dictate retail prices, selling methods and hours of business. By the 1980s distributors of all but one direct selling organisation were independent contractors who were free from control of their selling (Biggart 1989:41).

2.4.7 The early modern era

It was the early modern era of the 1940s that saw at least three major developments: branch office operations as the dominant form of direct selling organisations, the introduction of the party plan as marketing technique, and the formation of the first network direct selling organisation.

Biggart (1989:42) states that by the 1980s only about five percent of all direct sales were by home office operations, which were the first organised form of direct selling organisations. As noted above, the entry of Stanley Home Products into the direct selling market changed the future of the industry when this organisation introduced the party plan.

2.4.8 The party plan

Developed by Norman W. Squires, the home party added a new dimension to direct sellers, as customers gathered at the home of hostesses to see product demonstrations and socialise with friends (Archivescenter 2009). The party plan made use of the informal atmosphere of social gatherings, which had presumed advantages of generating multiple sales, while reducing the tensions inherent in formal one-to-one selling situations (Bone 2006). Biggart (1989) states that the party plan skilfully blurred the social and economic spheres, since an essentially economic function (the demonstration of consumer goods) was transformed into a social obligation. It is exactly this obligatory component that has remained inherent in direct selling and that has attracted criticism from protagonists in different disciplines for different reasons.

The growth of the direct selling industry allowed many to become successful where no opportunity has existed before (DSA 2010). Biggart (1989:45) explains the reason for the success of the party plan. It was an important innovation for the direct selling industry for several reasons. It allowed sales representatives to use their time more effectively, since sales demonstrations were delivered to groups of people. A hostess was asked to invite the party guests and would in return receive a gift or some form of remuneration, such as a credit towards her own purchases. The hostess did much of the work. The social and economic spheres were blurred skilfully. While the function was essentially an economic one, the demonstration of consumer goods was transformed into a social occasion. Many guests would feel morally obliged to help the hostess/friend have a successful party (Biggart 1989). Success seemed to require that guests show interest in the goods and make at least a modest purchase. The party plan was characteristic of the increasing commercialisation, not only of social relations, but also of the direct selling industry's contribution (Archivescenter 2009). At present a large portion of goods sold directly is still sold at parties. The party plan was fully implemented when another direct selling giant, aimed at same target market, entered the arena in 1946: Tupperware (Clarke 1999).

It was, however, the direct selling industry's use of social networks to widen its potential client base, through the use of the party plan, that changed the face of direct selling permanently when network marketing, also referred to by the Direct Selling Association as multi-level marketing, became the dominant *modus operandi* in the direct selling industry.

2.4.9 The first NDSO

Biggart (1989:44) holds that the first network direct selling organisation was probably started when a psychologist, William Casselberry, and Lee Mytinger started selling Nutrilite XX vitamins through what they called the C & M Marketing Plan. They had been selling vitamins since 1934, but in 1941 they established a new scheme whereby distributors could earn a further three percent on the sales of people they personally recruited to the organisation. In doing so they ensured that the distributors were connected financially to the people who sponsored them and they in turn sponsored. Bone (2006:4) remarks that network marketing was one way direct selling overcame the potentially negative feature of exploiting friends and friendship networks:

Network marketing created new opportunities for business expansion beyond one's own immediate clientele, as it entailed salespeople being paid a bonus and/or commission on the business of other organisers they managed to recruit into the organisation.

Distributors were attracted to the potentially limitless income as they developed chains that could provide long-term and relatively passive income, as pyramid-like chains formed. The growth of the direct selling industry increased exponentially as networks formed continuously, which they still continue to do (Bone 2006:4). Network direct selling organisations that apparently placed increasing emphasis on continuous recruitment gained characteristics that distinguished them from other sales organisations.

Biggart (1989:44) notes that by 1941 the innovation of the NDSO resulted in deeper, more intense and sustained use of social networks for financial gain. NDSOs created another income opportunity by introducing royalties on the sales made by a distributor's recruits to the direct selling organisation. The term "pyramid schemes" emerged as one associated with some direct selling organisations, such as Amway¹⁹, when the Federal Trade Commission held hearings on whether its network constituted a pyramid scheme. An investigation by the Federal Trade Commission in 1979 determined that the network character of the financial trade relationship was not illegal. As long as the direct selling organisations paid royalties on the sales of newly recruited distributors and not for merely bringing the recruit to the organisation, they were considered legal businesses.

Even before Amway was formed, other direct selling organisations copied the C & M Marketing innovation. Stanley Home Products became a network direct selling organisation in the 1950s and early 1960s and former Stanley Home distributors, such as Mary Kay Ash,

¹⁹ See Pratt (2002).

Mary Crowley, and Brownie Wise, founded Mary Kay Cosmetics, Home Interiors and Gifts, and the Tupperware²⁰ sales force respectively (Biggart 1989:47)

The rapid development of new product categories over the past few decades has further accelerated the growth of direct selling. As the list below indicates, few relatively low cost consumer products are not offered through direct selling:

- Adult products
- Art and decorations
- Audio and CDs
- Books
- Candles and accessories
- Children and baby
- Clothing, shoes and accessories
- Cosmetics and skincare
- Educational materials
- Food, wine and gourmet items
- Garden accessories
- Giftware and crafts
- Health and fitness
- Home accessories and décor
- Internet services
- Jewellery and accessories
- Kitchen and cookware
- Lingerie and sleepwear
- Pet care
- Photography and processing
- Scrapbooking and stationery
- Software
- Spa products
- Tableware
- Tea and coffee

Consumable products, such as health care products and homecare products, involve different relationships with clients than home appliances such as vacuum cleaners or garden

²⁰ Cf. Campbell (2008).

accessories for example. The various definitions of direct selling explored below show that direct selling can include non-tangible products such as services of different kinds. The possibility of creating income opportunities in individuals' personal environments opened many doors for direct selling distributors and the organisations they represented. Besides these factors, it was unavoidable that advances in technology, particularly the Internet, had further bearing on the current definitions, types and profiles of direct selling organisations.

Critical evaluation of existing definitions of direct selling aims to illuminate some of the factors that have been investigated in previous studies.

2.5 EXISTING DEFINITIONS OF DIRECT SELLING

According to Peterson and Wotruba (1996:2) a definition of direct selling that is sufficiently precise to enable meaningful communication yet broad enough to be directive in terms of both research and practice is required. They add that many definitions are so broad that they fail to differentiate direct selling from other forms of marketing, and they also acknowledge that the term "direct selling" is typically associated with selling to ultimate consumers. Bauer and Miglautsch (1992:14) also note that direct selling is often confused with direct marketing because of the word "direct".

The DSA (2010) defines direct selling as "the sale of consumer product or service, person-to-person, away from a fixed retail location". Although this is not a novel or unique definition it differentiates direct selling from other forms of marketing methods. Baker (1984) and Hart and Stapelton (1992) distinguish direct selling by its lack of middlemen, identifying it as a form of selling without retail outlets, distributors or wholesalers. In other words, products and services are marketed to customers by independent salespeople. The term "distributors" may be confusing, though, since such salespeople are also referred to as "distributors, representatives, consultants, or various other titles" (DSA 2010). Bauer and Miglautsch (1992:14) explain that "most direct selling firms usually do not sell directly to consumers and they usually do not know who their end consumers are – nor can they track responses of consumers". The Direct Selling Education Foundation (DSEF) (2010) proposed a similar definition: "A method of distribution of consumer goods and services through personal (seller to buyer) contact away from fixed business locations, primarily in a home". This adds emphasis to the consumer market focus of direct selling and describes it as a distribution method.

The Federation of European of Direct Selling Associations (FEDSA) (2009) adds another dimension in its definition by emphasising the explanation and demonstration aspects involved: “Direct selling is the marketing of consumer goods and services directly to consumers on a person-to-person basis, generally in their home or the home of others, at their workplace and other places away from permanent retail locations. Direct selling typically occurs through explanation or demonstration by salespeople referred to as direct sellers” (FEDSA 2009), offering consumers product information that is usually not available at a retail outlet. FEDSA refers to direct selling as marketing rather than a method of distribution.

The operational, tactical and strategic perspectives presented below distinguish some of the features of direct selling that are contained or implied in the above definitions.

2.5.1 An operational perspective on the definition of direct selling

Although they concur that the definition of direct selling as face-to-face selling away from a fixed retail location is deceptively simple and mid-range, Peterson and Wotruba (1996) isolate two major elements of direct selling from an operational or physical perspective: 1) face-to-face selling and 2) away from a fixed retail location.

Many other forms of selling, including retail outlets, can and do involve face-to-face selling, where consumers obtain product information at their request or this is volunteered by salespeople as part of sales transactions in general. Mayer and Ellis (1995:2) state that the key characteristic of direct selling is that the relationship between the salesperson (independent distributor) and the customer or consumer is *personal*, wherever the transaction occurs. Direct selling can be distinguished from direct marketing in that the latter involves relationships that do not involve personal interaction. Telemarketing, as a form of direct marketing, involves a person (or computer) speaking directly to a potential customer or consumer but not in the presence of one another and mostly without prior acquaintance. As Mayer and Ellis (1995:2) point out, many direct sellers at present use telemarketing, direct response advertising, direct mail, catalogues and electronic media to enhance the direct selling channel relationships, as direct marketing does, but the decision to use direct marketing (or not to do so) is a strategic decision for direct sellers.

The settings in which direct selling occurs, which are away from fixed retail locations, require further consideration from an operational perspective. Most product brands sold by independent sales distributors in direct selling cannot usually be purchased at a retail outlet. Most commonly, the purchases take place at a home (usually the buyer's) or workplace

(typically the buyer's) or at a neutral location such as a third-party home. This differentiates direct selling from the personal selling that can occur in a retail store. In the case of beauty products or jewellery specifically it has been found that some business premises, like those of beauticians or hair dressers, do keep stock of the products they sell and place them on display for clients to view during treatments. Some even use some of the products to treat clients' skin or hair, for example, to promote the sale of such products. While such venues cannot be classified as retail outlets, and while in such cases the products are not demonstrated in the same way as with the party plan, for example, they can still be sold within a private business context, particularly where the independent sales distributor utilises the products sold within the scope of her other general business activities, like beauticians often do, for example.

The interpersonal communication between the parties (buyer/seller) in direct selling, compared to other marketing methods, holds important benefits. As Peterson and Wotruba (1996:3) state: "Most prominent among these benefits are its flexibility and the quality and quantity of information that can be exchanged". Direct selling can be flexible because it is not constrained by time or location and can occur in places and at times most convenient to the parties involved. Further, face-to-face communication without distractions means that all senses can be involved, while the parties can express their needs specifically and sales presentations can be individually customised. Where the product requires, the (potential) buyer can be thoroughly informed and educated and the product(s) can be marketed through actual demonstrations and personal involvement. For example, Avroy Shlain Cosmetics encourages beauty distributors to demonstrate the use of skin care and cosmetic products by offering clients "makeovers" tailored individually to each client. Hence, from an operational or activity perspective, direct selling epitomises the relationship marketing²¹.

Dwyer, Schurr and Oh (1987) discuss buyer-seller relationships and relate these to the social exchange theory of Thibaut and Kelly (1952). They distinguish between discrete transactions (such as a one-time purchase of a cold drink at an after-hours retail outlet), and relational exchange (transactions viewed in terms of history and anticipated future). Dwyer, et al. (1987:12) note that:

Relational exchange participants can be expected to derive complex, personal, noneconomic satisfactions and engage in social exchange. Because duties and performance are relatively complex and occur over an extended time period, the parties may direct much effort toward carefully defining and measuring the items of exchange.

²¹ Cf. Comey and Kasulis (2000).

While they also emphasise the relationship between seller and consumer, it follows that the relationships established in direct selling are the major challenge to the middle and upper levels of management, as these involve helping other independent sales distributors generate repeat business from existing customers or clients and also recruit other salespeople to elevate their own income potential. As such, relationships are established for pecuniary purposes and existing relationships (often friends and family relationships) are utilised for the same (Lan 2002:165). Table 2.1 here below presents one of the few communicative analyses found in scholarly papers relating to NDSOs.

Table 2.1: A Comparison of Discrete Transactions and Relational Exchange

Conceptual elements	Discrete transactions	Relational exchange
Situational characteristics		
Timing of exchange (commencement, duration, and termination of exchange)	Distinct beginning, short duration, and sharp ending by performance	Commencement traces to previous agreements; exchange is longer in duration, reflecting an on-going process
Number of parties (entities taking part in some aspect of the exchange process)	Two parties	Often more than two parties involved in the process of governance of exchange
Obligations (three aspects: sources of content, sources of obligation, and specificity)	Content comes from offers and simple claims, obligations come from beliefs and customs (external enforcement) standardised obligations	Content and sources of obligations are promises made in the relation plus customs and laws; obligations are customised, detailed, and administered within the relation
Expectations for relations (especially concerned with conflicts of interest, the prospects of unity, and potential trouble)	Conflicts of interest (goals) and little unity are expected, but no future trouble is anticipated because cash payment upon instantaneous performance precludes future interdependence	Anticipated conflicts of interest and future trouble are counterbalanced by trust and efforts at unity
Process characteristics		
Primary personal relations (social interaction and communication)	Minimal personal relationships; ritual-like communications predominate	Important personal, noneconomic satisfaction derived; both formal and informal communications are used... <i>(continued)</i>

Conceptual elements	Discrete transactions	Relational exchange
Process characteristics		
Contractual solidarity (regulation of exchange behaviour to ensure performance)	Governed by social norms, rules, etiquette, and prospects for self-gain	Increased emphasis on legal and self-regulation; psychological satisfactions cause internal adjustments
Transferability (the ability to transfer rights, obligations, and satisfactions to other parties)	Complete transferability; it matters not who fulfils the contractual obligation	Limited transferability; exchange is heavily dependent on the identity of the parties
Cooperation (especially joint efforts at performance and planning)	No joint efforts	Joint efforts related to both performance and planning over time; adjustment over time is endemic
Planning (the process and mechanisms for coping with change and conflicts)	Primary focus on the substance of exchange; no future is anticipated	Significant focus on the process of exchange; detailed planning for the future exchange within new environments and to satisfy changing goals; tacit and explicit assumptions abound
Measurement and specificity (calculation and reckoning of exchange)	Little attention to measurement and specifications; performance is obvious	Significant attention to measuring, specifying, and quantifying all aspects of performance, including psychic and future benefits
Power (the ability to impose one's will on others)	Power may be exercised when promises are made until promises are executed	Increased interdependence increases the importance of judicious application of power in the exchange
Division of benefits and burdens (the extent of sharing of benefits and burdens)	Sharp division of benefits and burdens into parcels; exclusive allocation to parties	Likely to include some sharing of benefits and burdens and adjustments to both shared and parceled benefits and burdens over time

Source: Dwyer, Schurr and Oh (1987:13)

Dwyer, et al. (1987:12-13) state that this table serves two important purposes: first, it dramatises the multidimensionality of exchange and prompts the consideration of sweeping arrays of diverse transactional forms. Second, it underscores the need to make distinctions between discrete and relational exchange. However, even though these considerations

identify and describe the relationship dimension of direct selling from an operational perspective to a certain extent, the emphasis remains on the seller-buyer relationships, while the relationships between direct selling organisations and independent sales distributors and among independent sales distributors that influence the relationships with the ultimate consumers are not addressed adequately.

Raymond and Tanner (1994:67) remark that in consumer literature repeat business is often discussed in terms of brand loyalty or store loyalty that has been established from previous experiences and/or products respectively. Peterson and Wotruba (1996:4) acknowledge the issue of repeat business and identify a tactical perspective that leads to an examination of direct selling tactics.

2.5.2 A tactical perspective on the definition of direct selling

Peterson and Wotruba (1996:4) state that from an operational perspective, direct selling is a relatively straightforward personal activity, but once all the forms of communication are incorporated it is not as straightforward, even from an operational perspective. In practice, the execution of direct selling can take on numerous forms, as direct selling is not a homogeneous phenomenon. There are several distinct tactics commonly employed under the designation of direct selling that require its assessment from a tactical perspective, as Peterson and Wotruba (1996:4) argue.

They point out that direct selling can be characterised by the following variables, which have tactical implications for direct selling organisations with respect to selling as well as recruiting:

- the type of salesperson used
- whether selling agents are part-time or full-time
- whether the selling effort occurs at home or elsewhere
- whether it is transaction-oriented or relationship-oriented
- whether it follows a party plan format
- whether pre-notification is used
- whether it is multi-level
- the extent to which selling agents are customers
- whether selling agents take physical possession of products
- the manner in which purchases are delivered and payment is obtained

Each of these characteristics is addressed individually below.

2.5.2.1 The type of salesperson used

The first characteristic – the type of salesperson used – usually involves two choices: such a person can be either an employee or an independent sales distributor. The vast majority of direct salespeople in South Africa and the rest of Africa (98.7 percent) are independent contractors, mainly for cost reasons (DSA SA 2009, Appendix A)²². Independent sales distributors purchase products from direct selling organisations and get paid commissions or bonuses only when the products are sold, which means that selling costs are variable. As Peterson and Wotruba (1996:4) note, there are no salary-related or other significant fixed costs associated with independent sales distributors. As a matter of interest, the employment status in direct selling companies in South Africa is illustrated by the number of permanent staff members (indicated in Table 2.2 below):

Table 2.2: Permanent Staff in Direct Selling Organisations in South Africa and Africa

Permanent staff	2008	% of total staff	2007	% of total staff	2006	Growth 2008-2007 %
South Africa	3582	89%	3447	92%		3.9
Rest of Africa	423	11%	286	8%		47.9
Total	4005	100%	3733	100%	3466	7.3

Source: DSA SA (2009, Appendix A)

Bone (2006:4) remarks that network marketing created the potential for direct selling organisations to grow exponentially since independent sales distributors continually seek to build networks to increase their income, which relieves direct selling organisations of a great deal of responsibility and cost of recruitment and training. The number of permanent staff members has increased marginally over the past two years. Table 2.3 below indicate the numbers of individuals that constitute the composition of permanent staff in direct selling organisations in South Africa:

²² The information on NDSOs in South Africa was obtained from the presentation slides for the annual awards ceremony held in 2009 during which statistical information of 2007 was presented (see Appendix A). The DSA SA Website does not make this information available to the public and it was obtained through correspondence with DSA SA. More recent statistical information obtained is as presented by WFDSA as indicated in the global statistics presented in Figure 2.4, Figure 2.5 and Figure 2.6.

Table 2.3: Composition of permanent staff in direct selling organisations in South Africa

Permanent staff	2008	% of total staff	2007	% of total staff	2006	Growth 2008-2007 %
Directors/Senior management	381	10%	404	11%		-5.7
Admin staff	1078	27%	1193	32%		-9.6
R&D, prpduction, logistics	671	17%	651	17%		3.1
Warehouse staff	545	14%	505	14%		7.9
Salaried sales staff	895	22%	637	17%		40.5
Other	435	11%	343	9%		26.8
Total	4005	100%	3733	100%	3466	7.3

Source: (2009, Appendix A)

Table 2.3 illustrates the distribution of management and staff in direct selling organisations in South Africa. It is significant that the total number of permanent staff members (4,005) represents only 1.3 percent of those people involved in direct selling, which were estimated as 304,000 active salespeople in 2008 (DSA SA 2009, Appendix A).

2.5.2.2 Part-time or full-time direct selling agents

Whether salespeople work full-time or part-time has further strategic implications. Full-time salespeople usually sell products in higher price categories that have a lower turnover rate and may mostly involve once-off sales followed up by service calls. Bone (2006:5) holds that direct selling organisations selling relatively high cost products through full-time independent sales distributors should be clearly distinguished from NDSOs that sell relatively low cost consumer products by using the term “value direct selling organisations”. This study does not focus on value direct selling organisations, since it is the communication actions revolving around NDSOs that result in the exponential growth investigated in this study.

The latest statistics in the US reveal that 90.1 percent of salespeople do direct selling part-time (DSA 2009). Only 9.9 percent of more than 15 million direct salespeople in the US are considered full-time and work thirty hours or more per week. The DSA SA does not provide this information for South Africa, although some assumptions can be made based on these estimated rebate earnings:

Table 2.4: Estimated rebate earnings in South Africa

Rebate earnings	2008	2008	2007	2007
Active sales people approximately	304000	%	251000	%
Up to R1000 per month	225000	74%	199000	79%
R1000 to R2500 per month	40000	13%	34000	14%
R2500 to R5000 per month	19000	6%	12000	5%
R5000 to R10000 per month	13000	4%	4000	2%
R10000 to R25000 per month	5000	2%	2000	1%
Over R25000 per month	2000	1%	315	0%

Source: DSA SA (2009, Appendix A)

The figures in Table 2.4 illustrate that 93 percent of active salespeople earn less than R2,500 per month, and it can therefore be assumed that they are part-time distributors, as appears to be the trend globally. These figures also confirm that the vast majority of independent sales distributors do not accomplish financial independence through direct selling. The DSA SA (2009, Appendix A) reports that an increase in salespeople is anticipated, given that 539,000 jobs were lost in April 2009. The DSA SA holds that employment has decreased by 5.4 million jobs over the past year and state that the unemployment rate is 8.9 percent, which is the highest since 1983. This is graphically presented in Figure 2.2 below.

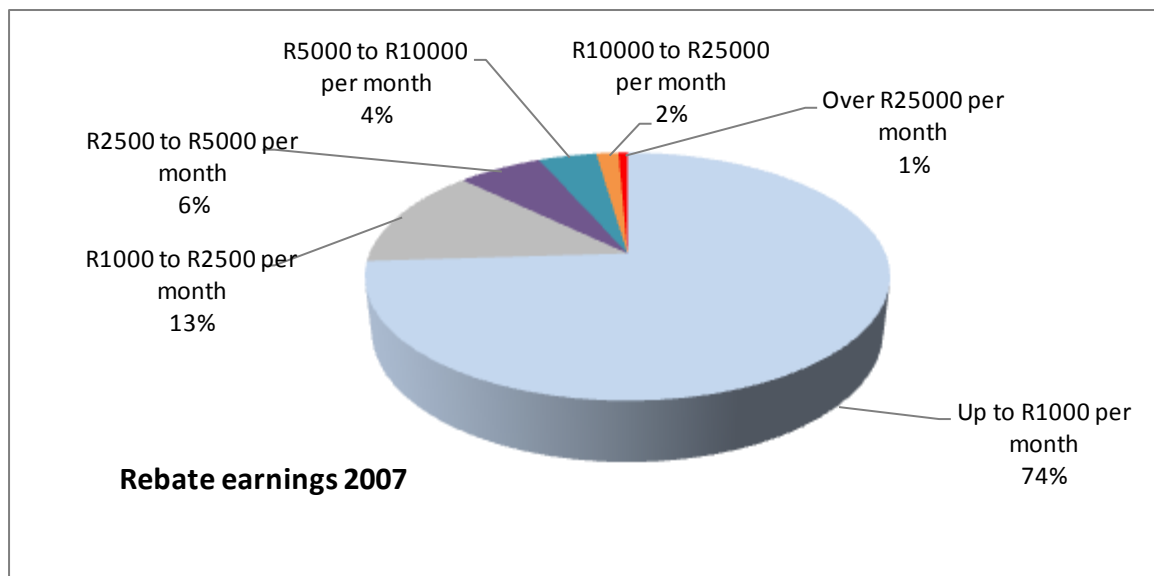


Figure 2.2: Rebate earnings in direct selling organisations in South Africa in 2007 (DSA SA 2009, Appendix A)

The relatively low joining fees and support of other independent sales distributors may appear more attractive to individuals who seek to supplement their income under the current economic conditions. However, considering that as many as 225,000 independent sales distributors in South Africa earn up to R1,000 per month, and that only three percent of these have a relatively good income, other explanations for the growth and sustenance of the industry are required. These rebate earnings are related to global figures and discussed further under 2.4.

2.5.2.3 The location where direct selling occurs

The third characteristic refers to where the direct selling process takes place, and, as discussed above, it is often in people's homes or place of work or another neutral location. In the US 70.4 percent of direct sales occur in the home and 22.9 percent occur through remote selling such as via the Internet or telephone, while the remainder occur in other venues such as fairs, exhibitions, and so forth (DSA 2010). Comparative statistics for South Africa are not released by the DSA SA at present.

2.5.2.4 The transaction or relationship orientation of direct selling

The following characteristic, whether the direct selling is transaction-oriented or relationship-oriented, has very specific implications for the nature and extent of the communication between parties. As Peterson and Wotruba (1996:4) note, some direct selling is very transaction oriented in that it is concerned mainly with obtaining an immediate sale. This type of direct selling typically involves expensive, durable products or services that are usually replaced infrequently. Peterson and Wotruba (1996:4) use the example of Kirby vacuum cleaners in this regard, and the company operates on a similar basis in South Africa. Activities in this kind of direct selling focus on customer attraction, which is often facilitated by referrals and a strong company reputation. Kirby's direct selling approach therefore embodies the attraction approach and transaction orientation. This is typical of the value direct selling organisations referred to above.

As discussed earlier, the emphasis in NDSOs is on generating and maintaining repeat purchases rather than on attracting customers for a single transaction. Since most direct selling organisations can be classified as NDSOs, they have a similar relationship orientation. The illustration of the product mix below gives an indication of the extent to which direct selling in South Africa represents a dominant relationship orientation:

Table 2.5: Product mix of direct selling products in South Africa

Product mix changes	2008	2007	2006	Growth 2008-2007 %
Household goods	29.2%	27.0%	21.9%	8.3
Health & Wellness	21.9%	24.3%	26.7%	-10.0
Cosmetics	6.7%	7.0%	4.0%	-4.3
Financial products	19.5%	15.5%	16.0%	25.5
Personal care	8.8%	11.0%	13.8%	-20.1
Other	3.1%	4.4%	3.6%	-29.9
Fragrance	7.6%	7.3%	7.4%	3.1
Jewellery	3.3%	3.4%	6.6%	-5.5
	100.0%	100.0%	100.0%	

Source: DSA SA (2009, Appendix A)

The product mix clearly illustrates that NDSOs are dominant in South Africa, as estimated by the volume in consumable products (illustrated more clearly in Figure 2.3 below):

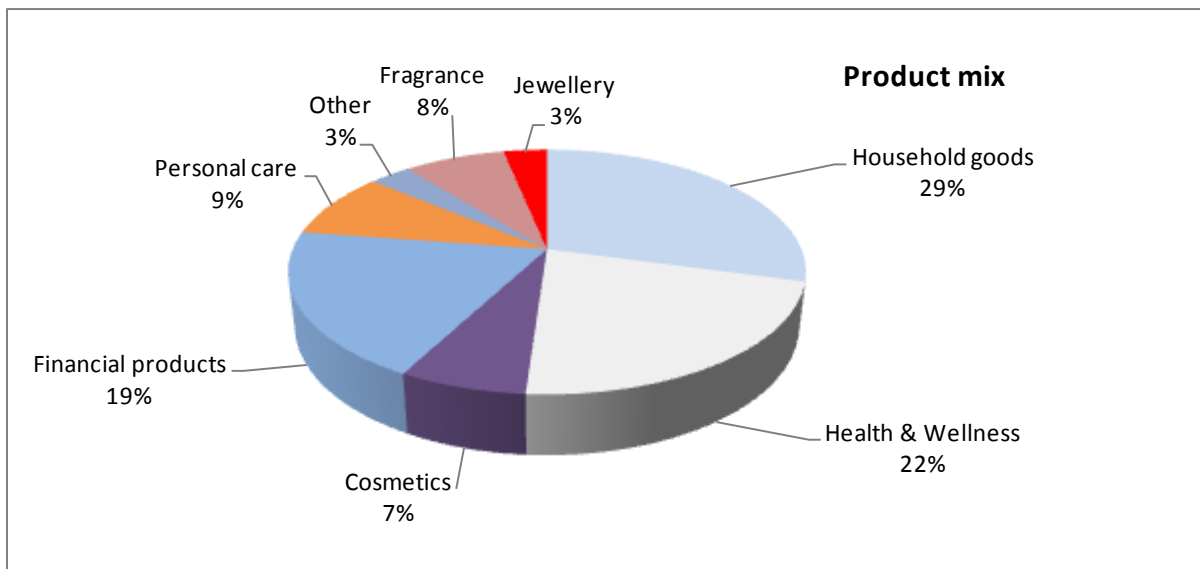


Figure 2.3: The product mix of direct selling organisations in South Africa in 2007 (DSA SA 2009, Appendix A)

The information presented in the product mix becomes more significant when it is compared with the distribution in race among independent sales distributors in South Africa:

Table 2.6: Distribution in race among independent salespeople in South Africa

Race of active sales people	2008	2007	2006	Change %2008-2007
Black	84%	75%	81%	12.0
White	11%	17%	12%	-35.3
Indian/Asian	2%	4%	3%	-50.0
Coloured	3%	4%	4%	-25.0
Total	100%	100%	100%	

Source: DSA SA (2009, Appendix A)

Msweli-Mbanga (2004:10) remarks that there is a historical ‘fit’ between the underlying principles of NDSOs and certain elements of indigenous African culture:

... in South Africa there is a long tradition of social clubs or stokvels, where money and other resources are pooled together to help benefit participating members. It has also been noted that extended family relationships and close, lifelong personal relationships in African countries are particularly well suited to the direct selling system of products and services distribution.

The emphasis placed on continuous recruitment to increase earnings in network direct selling organisations places a great emphasis on social networks, which are stronger in African communities. Msweli-Mbanga (2004:10) remarks that this not only makes it easier for direct selling organisations to enter local markets in South Africa, but also enables the exploitation of weaknesses in the traditional retail system in emerging economies that can be found in Africa. It is also noted that the direct selling industry has maintained a female orientation globally. Biggart (1989) reported that direct selling organisations were becoming increasingly women-friendly due to their social characteristics and marketing strategies. In the U.S. the gender distribution among independent sales distributors was 82 percent female and 18 percent male (WFSA USA 2011). The gender distribution in South Africa and Africa mirrors global trends:



Table 2.7: Distribution of gender among independent salespeople in South Africa

Gender of active sales people	2008	2007	2006	Change % 2008-2007
Male	26%	29%	31%	-10.3
Female	74%	71%	69%	4.2
Total Sales	100%	100%	100%	

Source: DSA SA (2009, Appendix A)

The decline in male salespeople and increase in female salespeople do not reveal significant information, since the product mix illustrated in Figure 2.3 illustrates a high volume in household and health and wellness products, which are more likely to be sold by female distributors, particularly on a part-time basis. These products are also more likely to be suitable to the party plan format, as demonstrations of uses and benefits can improve sales significantly. A comparison with a study of the direct selling industry conducted by Msweli-Mbanga (2004:11) shows that this ratio has not changed significantly since 2001.

2.5.2.5 The party plan format

With relationships as foundation, the party plan referred to earlier is often employed. Peterson and Wotruba (1996:5) note that in party-plan selling the direct selling process becomes very social and entertaining, and the likelihood of purchases is to some extent influenced by the strength of the relationships between the potential buyer and the host or hostess. It can be added that in the small group context of the party plan, attendees usually have some relationship with the hostess and/or direct seller that can make them feel compelled to make purchases they would not otherwise have made, either because others are making purchases or because they perceive a sense of obligation. Raymond and Tanner (1994) confirm that the obligation to buy was a major reason for initial purchases made through direct selling in their study.

Party-plan or group sales constituted 25 percent and 10 percent of sales by sales strategy in the U.S. and South Africa respectively in 2009 (WFSA USA 2011). The majority of direct sales in the U.S. occur through person-to-person direct selling, although this figure includes consumption by direct sellers (DSA USA 2009).

2.5.2.6 The use of pre-notification or not

Direct selling can also be characterised according to whether potential customers are pre-notified or contacted before the selling process takes place or whether some cold-selling occurs. Pre-notification by means of appointment is typically done by companies such as Amway in South Africa. Women often accept invitations to parties such as Tupperware or lingerie as sold by Essential Bodywear. As Peterson and Wotruba (1996:5) note, pre-notification by means of appointment, referral, or at the request of a customer can also be used for on-to-one direct selling. Cold-calling is far less typical, as people may be reluctant to accept an uninvited person into their homes, or be unwilling to listen to information about a product they had not been informed on before.

2.5.2.7 Multi-level versus single-level direct selling

Peterson and Wotruba (1996:5) distinguish between different structures in direct selling: multi-level, network, hierarchical or flat structures. Multi-level marketing is not truly marketing at all, but rather one of a variety of methods of organising and compensating salespeople in a direct selling business for their management, training, motivating and recruiting persons who will sell their companies' products (WFDSA 2011). It was established through direct observation during this study that Avroy Shlain Cosmetics, for example, places a great amount of pressure on individual distributors to recruit salespeople on a monthly basis, and commission structures depend on the number of people recruited during a month. Regardless of their sales volume, independent sales distributors for Avroy Shlain Cosmetics do not qualify for certain gifts or rewards, such as an annual overseas trip, if a certain number of new salespeople have not been recruited.

As Peterson and Wotruba (1996:5) note, multi-level organisations must be carefully planned and administered to avoid the risk of becoming an illegal pyramid operation. The central characteristic of an illegal pyramid is that the founders and early entrants to the organisation profit from the fees and inventory investments required of later participants when they join, rather than from the revenues created by sales to the ultimate users of the products.

According to the WFDSA (2011), pyramid scheme operators not only discredit direct selling, but also divert the attention of less experienced direct sellers, whom pyramid promoters try to recruit. As FitzPatrick (2004:1) remarks, owning a profitable and independent business represents the dream of economic freedom and financial opportunity; however, he adds that for many people this dream becomes a nightmare when the consumer is misled into a non-retail direct selling business. He adds that in pyramid schemes profits come to a few from

the losses of many, because more than 99 percent will always be in the bottom ranks, where there are no more recruits below to provide an income. FitzPatrick (2004:4) illustrates this by way of a simple six-level chain in which each person recruits just five people. At least three levels of recruits (5 + 25 + 125) are needed for each participant to begin to achieve a profit. Since only those with three levels below them are profitable, only the top person and the individuals in level one and two benefit. This means that only 31 out of 3,906, or less than one percent of the six-level chain, have as many as three levels below them and makes a profit. Failure is therefore predetermined for nearly all (FitzPatrick 2004:1). In this regard, Peterson and Wotruba (1996:6) hold that direct selling organisations have to attract recruits whose needs and expectations are matched by the characteristics of the job and whose expectations can be reinforced by through proper training and guidance. They are of the opinion that this could lead to a higher retention of direct salespeople through lower turnover²³. Wotruba and Tyagi (1991:24) state that it is the relationship between expectations and experience, and not either of these factors in isolation that determines salespeople's propensity to drop out.

The WFDSA (2011) states that pyramid schemes are not commercially sustainable, because they essentially assume an inexhaustible flow of recruits, all willing to pay to enter the scheme and to be enriched by subsequent recruits doing the same thing. Only 6.2 percent of direct selling organisations in the United States operated on a single-level marketing basis in 2008, representing 3.7 percent of sales, and less than one percent of the total sales force (DSA US 2010).

2.5.2.8 The extent of consumption by independent sales distributors

Another crucial and contentious issue is the extent to which direct sellers are themselves end users of the products they sell. In certain situations the salespeople are effectively the end users in that they are simply purchasing the products for their own accounts or use, with little or no intention of reselling the products or service²⁴. This was recorded during the research with companies such as Avroy Shlain Cosmetics, Tupperware, Global Neo-Lite Diamite (GNLD), Honey, and Amway. Peterson and Albaum (2007:320) note that internal consumption can create loyal distributors and imply that if distributors do not "believe in" their organisation's products or services they are not likely to be effective. Distributors of products such as skincare, healthcare or home appliances are more likely to be both sellers and end users, such as with the organisations referred to above. Table 2.8 indicates the number of

²³ Cf. Jagannathan and Akhila (2009)

²⁴ Cf. Knights and Morgan (1993)

salespeople in South Africa, and also shows the consumption ratio in direct selling organisations in South Africa.

Table 2.8: Number of salespeople in South Africa

Number of sales people	2008	% of total sales	2007	% of total sales	2006	% of total sales	Growth 2008-2007 %
Regular users	762000	71%	683000	73%	521000	71%	11.6
Sales people	304000	29%	251000	27%	208000	29%	21.1
Total sales	1066000	100%	934000	100%	729000	100%	14.1

Source: DSA SA (2009, Appendix A)

The level of personal consumption is particularly high in the direct selling industry globally, as it is in South Africa. It can therefore be assumed that an increase in the number of independent sales distributors would automatically reflect in the sales of the organisation. The increase of approximately 600,000 independent sales distributors globally (WFDSA 2011) therefore necessarily implies a considerable increase in consumption.

It has been observed during this study that members are often compelled to purchase certain quantities of stock, as it was the case with a Tupperware distributor, and that they also become ardent consumers, particularly of the health products sold for GNLD, for example. One of the GNLD distributors, Rodney Bolton (2008)²⁵, owned a farm in the Eastern Cape in South Africa, and purchased significant quantities of health supplements for his employees who were HIV positive. He reported that it greatly reduced absence from work among his employees. Consumers are more likely to believe in the effectiveness of products when the salesperson can demonstrate results or give personal testimony.

2.5.2.9 Independent sales distributors taking physical possession of products or not

Peterson and Wotruba (1996:6) make a further distinction in terms of whether or not the salespeople take physical possession of the products they sell. The relevance of this pertains to whether the sellers originate orders for shipment subsequent to sales or maintain a physical inventory from which they deliver to end users following the sale.

Direct selling organisations may differ, but in general independent sales distributors order products from the head office as clients place orders. Considering the average rebate

²⁵ Personal conversation with R Bolton: Member GNLD, 17 December 2008.

earnings of less than R1,000 for the majority of independent distributors, it would be costly to keep a physical inventory, and therefore it is unlikely, particularly in South Africa. However, in 2001 a case occurred in Avroy Shlain Cosmetics where an independent sales distributor accomplished exceptional sales volumes and was requested to share her knowledge and skills with other members. It was later revealed that she accumulated a large physical inventory to appear successful and receive peer recognition, but that she could not sell the products or pay for them. The products had to be returned to head office. It has also been observed that members do purchase an inventory of products during sales promotions for example, since they can sell such products at their regular price after the promotion.

2.5.2.10 Delivery of purchases and obtainment of payment

Finally, direct selling organisations differ in the procedures used to deliver products and collect payment (Peterson & Wotruba 1996:6). Some organisations, such as GNLD, demand payment for products before delivery, while others, such as Avroy Shlain Cosmetics, give distributors a credit period to allow them to collect payment. It is also possible that some direct selling organisations deliver orders and collect payment without involving the direct selling agent. Organisations that employ the party plan often encourage distributors to deliver purchases to and collect payment from the buyers at the hostess's home, as is often the case with Tupperware, for example. GNLD in South Africa has a system whereby products get delivered to end users' homes if and when they exceed a certain purchase amount. Should the products be of lesser value, the seller has to receive and deliver them to end users personally or arrange for them to be collected by the end users. These methods of collection and delivery of products have implications for the direct sellers in terms of their time, travelling cost, and exposure to financial risk. If customers, for example, do not collect or pay for products when the direct seller had to pay up front for such products, it leads to financial losses if the direct selling organisation does not have a buy-back policy.

These direct selling characteristics and tactics can be combined into various configurations to construct a taxonomy into which virtually all forms of direct selling and direct selling organisations can be classified. Biggart (1989) holds that there are numerous factors, such as the type of product sold and the philosophy and culture of the particular direct selling company. According to Peterson and Wotruba (1996:6) there is no specific combination of tactics that will guarantee success or failure. Some characteristics are interdependent and others are mutually exclusive. Pre-notification is required for party-plan direct selling, for example, while whether the salespeople operate on a part-time or full-time basis is not relevant to whether the products are sold in the end users' homes or not. It was recorded

during the study that GNLD, for example, placed great emphasis on social support and motivation, encouraging personal development and growth in salespeople. Each configuration of tactics has different implications for the way a direct selling organisation operates its business. Normally the number of active salespeople correlates positively with the number of sales, as depicted in Table 2.9 below (indicated in the sections hatched in grey).

Sales can also fluctuate depending on the requirements of salespeople at different times during the year. Companies such as Avroy Shlain Cosmetics, Avon, GNLD and Tupperware, for example, launch campaigns around mothers' day, women's day or Christmas. Over holiday periods sales distributors may need extra income and may be more active during such periods. Peterson and Wotruba (1996:6) note that as a result of such cyclical activity, many direct selling organisations experience increased administrative costs and wide variances in inventory requirements. In this regard, it has been found in the course of the study that when Avroy Shlain Cosmetics had big product promotions, such products were frequently out of stock before orders could be placed, leaving the beauty distributors and their clients disappointed, and causing the loss of sales and hence income.

Whereas the operational perspective focused on direct selling as a form of personal selling and the tactical perspective considered it as a way of organising sales activities and functions, the strategic perspective provides further insight.

2.5.3 A strategic perspective on the definition of direct selling

Peterson and Wotruba (1996:6) say that from a strategic perspective direct selling can be viewed as a channel of distribution, a means of gaining access to a market, or a way of doing business.

2.5.3.1 Direct selling as a channel or mode of distribution

The main aspects relating to direct selling as a method of distribution were discussed earlier, but in brief it can be reiterated from a strategic perspective that in the most common form of direct selling, one type of channel intermediary – retailers – has been replaced by another type – independent contractors (Peterson & Wotruba 1996:7). Apart from this, similar marketing activities and functions must still be conducted, and only the manner in which these are conducted differs.

2.5.3.2 Direct selling as a means of gaining access to a market

Gaining access to a market involves a “push” marketing strategy, which in the marketing mix is characterised by the four Ps – place, product, price and promotion. In the absence of mass marketing and advertising, direct selling relies on the collective efforts of independent distributors to achieve the organisation’s communication and promotional objectives. While Peterson and Wotruba (1996:7) identify the strategic relevance of promotion and place in particular, the implications of this require elaboration.

First, the promotion in direct selling often means that salespeople initially approach their relatives and friends, in other words people they have established some kind of relationship with and who are easily accessible to communicate with. It can also be said that the closest members of such a social circle would be supportive and therefore would reduce the level of rejection to encourage a new salesperson to broaden such a circle in future, since supportive friends and family could form part of a network that include their respective friends and family.

Second, as Bone (2006:2) points out, “What unites all forms of direct selling ... is the tendency for business to be conducted in the customer’s home rather than on commercial premises. In addition, the seller rather than the customer normally makes the first approach”. Although this has been illuminated previously, it gains an added meaning from a strategic perspective. Promotion and place together means that the direct seller enters the private sphere of the buyer, which adds a particular competitive advantage that can be observed (Berry 1997) over retail outlets, by the other two Ps – product and price. The party plan, in particular, exemplifies this advantage, as Biggart (1989:43) explains:

... a friend’s invitation, a gathering of acquaintances, a private home – sets the stage for mannerly conduct and the fulfilment of social obligations. For many of the guests good manners seemed to dictate that one helps the hostess/friend to have a successful party. Success seemed to require that one show interest in the ostensible purpose of the gathering – the chance to express products – through at least a modest purchase.

Direct selling as a strategy is especially effective when the products involved are relatively inexpensive and benefit from demonstration in such an environment. Examples of companies that epitomise this advantage in South Africa are Honey Fashion Accessories, Avroy Shlain Cosmetics, Tupperware, Avon Justine, Miglio and Impumelelo. Such companies offer products such as home ware, accessories, cosmetics and health products that are relatively inexpensive, and that benefit from demonstration and reference groups.

Peterson and Wotruba (1996:8) indicate that a push marketing strategy is particularly effective in newly emerging market economies, as can be witnessed in Southern Africa (see

Table 2.5), where advertising can be replaced by the motivated efforts of a multitude of salespeople. As the Media Institute of Southern Africa (MISA 2009) indicates, media exposure in Southern Africa has several limitations, and therefore direct selling can be attractive in such newly emerging markets. Peterson and Wotruba (1996:8) concur that while direct selling in advanced economies, such as the US and Japan, have achieved great success, future growth possibilities for direct selling organisations may be more attractive in less developing economies with low consumer wealth and lack of infrastructure, as is the case in Southern Africa.

2.5.3.3 Direct selling as a way of doing business

As a way of doing business, direct selling is often preferred as a method of distribution because it is invisible. Products are not displayed on store shelves that can be monitored by competitors. Each direct selling organisation has its own culture and strategies, and, as stated earlier, the private spheres of salespeople are the points of trade, which makes monitoring and observation virtually impossible. The products of a particular company or their methods of recruitment may be directly observed but it may be possible for a direct-selling company to enter a market without being observed by its competitors until it has grown to a position of strength.

As a way of doing business, with the potential of becoming independent, direct selling offers the following rewards to prospective direct sellers (DSA 2010):

- An income generating opportunity that has few limits other than the amount of time, effort and dedication you are prepared to invest
- Entrepreneurial opportunity that enables you to start a business-within-a-business
- Personal growth – the companies empower you through the provision of product, business and life skills training, mentorship, and recognition
- Developing others – the opportunity to provide others with the same opportunities and benefits you have enjoyed
- Merchandise incentives based on product sales turnover
- Opportunity for international travel
- Building a residual income stream

Whether these rewards are actualised or not may be a contentious issue, but at face value they may seem attainable and feasible, since no prior qualification or experience is required. Most direct selling organisations offer training and support and even form strong social networks that function as support systems in the lives of individual distributors, as was found

during a peripheral investigation of GNLD for the purposes of this study in 2008. Therefore, from a social perspective, the material benefits for all prospective or active direct salesperson may not be of paramount importance. As stated earlier, social recognition can and does play a major role in many direct selling organisations. However, Peterson and Wotruba (1996:12) conclude that:

... the often nonselective recruiting process employed by direct selling firms, coupled with the straight commission method of compensation typical for independent contractors, will certainly draw persons into the job with naïve hopes for large and easily-earned incomes from only a modest commitment in time and effort; the unmet expectations of such individuals soon lead to their abandoning direct selling.

This implies that there is a discrepancy between what a person encounters in direct selling in terms of positive and negative experiences and what s/he expected to encounter. The global statistics presented raise certain questions regarding the financial gain for most salespeople in direct selling and the reasons for the vast number of people that are still joining the direct selling industry on a monthly basis. While the high drop-out rate is not disputed, the communication in this industry is still capable of sustaining it and, moreover, ensuring its growth. Domingo (2009) claims that the direct selling industry is booming even in failing economic conditions. Yet it is alarming that several of the well-known direct selling organisations have been and still are involved in litigation. Tupperware was banned from England in 2003 and reinstated in 2005 (Barrow 2003). Amway was banned from China in 1998, together with Avon and Mary Kay (Pyramid Scheme Alert 2005). Herbalife has also been involved in litigation on several occasions (Herbalife Report 2009) on charges related to misrepresentation of information relating to, among other things, earning potential. Lan (2002:165) and Bloch (1996) claim that the direct selling industry has attracted criticism as being insincere and exploiting friends and family for its use of personal relations as the means of selling products and recruiting distributors. The significance of such comment and criticism may appear more relevant when the global statistics presented below are considered.

2.6 GLOBAL STATISTICS FOR THE DIRECT SELLING INDUSTRY

The growth of the global direct selling sales force over the past ten years may be attributed to several factors. Figure 2.4 provides an immediate impression of the growth in the global direct selling sales force:

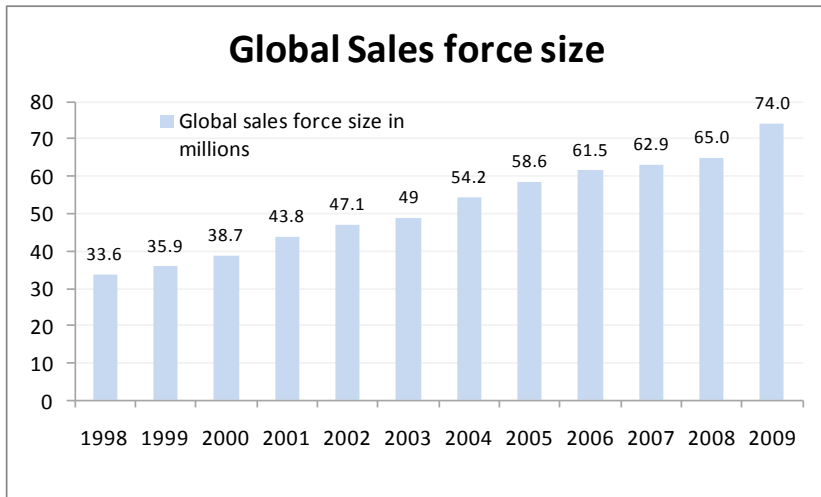


Figure 2.4: Growth in global direct selling sales force (WFDSA 2011)

Over the past ten years the global sales force has increased by 106 percent from 35.9 million to 74.0 million, and increased at an average rate of approximately 3.1 million members per annum between 1998 and 2008. It is interesting to note the global sales force increased by 9 million between 2008 and 2009, this may be attributed to the fall-out of the global credit crisis in 2008. The growth in global direct retail sales is presented in Figure 2.5 below.

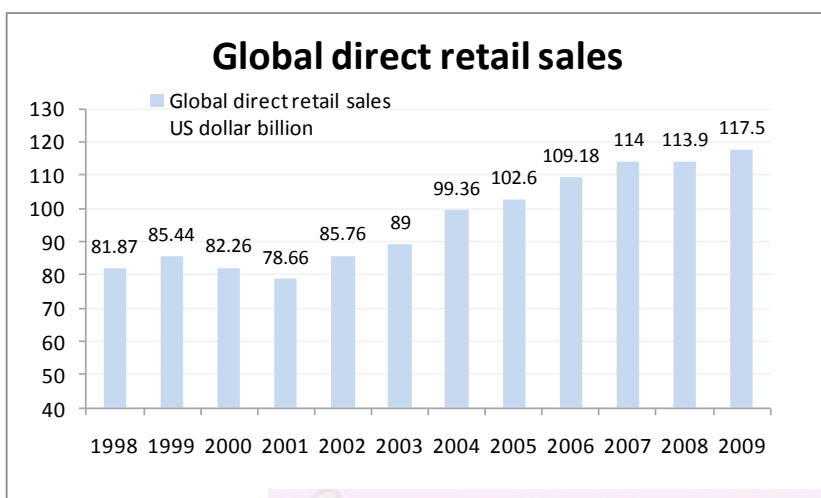


Figure 2.5: Growth in global direct retail sales (WFDSA 2011)

Despite the 106 percent global increase in the number of independent sales distributors over the past ten years, global sales increased by approximately 38 percent over the same period from \$85.44 billion to \$117.5 billion see (Figure 2.5). The average growth in earnings per independent sales distributor is illustrated in Figure 2.6:



Figure 2.6: Growth in global sales force average earnings (WFDSA 2011)

It is not surprising that the global average earnings has decreased over the past ten years by approximately 33 percent from \$2 380 to \$1 588 since retail sales have only increased by 39 percent while the sales force increased by 106 percent. It is interesting to note that between 2001 and 2008 the global average earnings reached a plateau despite the significant rise in the sales force.

A more detailed representation of the growth in the individual countries involved is presented in Table 2.9, which illustrates patterns that require further analysis for meaningful interpretation. Such analysis is not considered relevant for the purposes of this study, as the point here is simply to indicate the magnitude of the direct selling industry. Further demographic analysis may reveal particular social, economic or other trends pertaining to specific countries and/or particular circumstances individually.

Table 2.9: Global sales in participating countries in the direct selling industry: sales per person and number of sales people

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sales per person US\$ per annum (1)										
Number of sales people (NOSP) (2)										
Argentina US\$ (1)		2425	2021	798		1082		1297	1639	1573
Argentina (2)		468000	570000	688000		669000		765000	714000	731122
Brazil US\$ (1)		2061	1663	2345		3611		4789	4980	3382
Brazil (2)		1211111	1174583	1200507		1456926	1600000	1900000	2028093	2377336
Canada US\$ (1)		878	4408	1057		1114		2578	1938	1901
Canada (2)		937648	191469	898436		898000	548475	550831	608778	644455
Finland US\$ (1)		1916	1722	1379		1640		2615	2615	2525
Finland (2)		37373	52720	77511		86000		96000	96000	80000
Hungary US\$ (1)		626	837	739				845	845	790
Hungary (2)		140667	143407	144738	300000		194250	240155	240155	316448
Indonesia US\$ (1)		80	110		115		106		116	99
Indonesia (2)		4277186	4765353		5427310		7557328	0	5779226	5784728
Italy US\$ (1)		6677	7519	9050				10687	9227	8597
Italy (2)		260000	260000	260000	272000		310000	335000	365000	390955
Poland US\$ (1)		897	843	1031		926	1036		1275	804
Poland (2)		510000	385935	473400		645000	658000	0	670000	869328
Russia US\$ (1)		451	437	556	550		701	823	649	793
Russia (2)		585926	1146573	1610612	2305318		2495010	3375849	4413918	4995508
Singapore US\$ (1)		2053	753	829	799			565	466	56
Singapore (2)		57000	255000	315000	398152			575000	566000	4647727
South Africa US\$ (1)	613		450	631		808		758	758	569
South Africa (2)	300000		400000	450000		676000		934000	934000	1075000
Sweden US\$ (1)		864	1600	2600		2427		4000	4000	3880
Sweden (2)		98500	100000	100000		103000	330	100000	100000	100000
Thailand US\$ (1)	139		135	200		14	332		293	156
Thailand (2)	3200000	0	3800000	4000000		7000000	4100000	0	5400000	10000000
Ukraine US\$ (1)			388	358		602		634	634	376
Ukraine (2)			281715	421066		480000		708347	708347	1436100
United Kingdom US\$ (1)		4040		5702		5955		8496	8496	5025
United Kingdom (2)		501000	0	542300		575500		419500	419500	278000
United States US\$ (1)		2225	2208	2218	2199	2161		2053	1960	1760
United States (2)		12000000	13000000	13300000	13600000	14100000		15000000	15100000	16100000

Source: WFDSA (2011)

Besides representing direct selling activities globally, Tables 2.9 and 2.10 illustrate the growth in some of the emerging markets, such as South Africa, Brazil and Russia in particular, compared to the United States, which may be regarded as a mature market. It should be noted that figures have been omitted for countries that do not have a significant statistical database.

The increase in global sales per country is illustrated in Table 2.10, and again this information is included as an indication of the magnitude of the direct selling industry, and hence the need to subject it to further analysis and interpretation.

Table 2.10: Global sales in participating countries in the direct selling industry: sales and number of sales people

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sales US\$ million (1)										
Number of sales people (NOSP) (2)										
Argentina US\$ million (1)		1135	1152	549		724		992	1170	1150
Argentina (NOSP) (2)		468000	570000	688000		669000		765000	714000	731122
Brazil US\$ million (1)		2496	1953	2815		5261	6900	9100	10100	8040
Brazil (NOSP) (2)		1211111	1174583	1200507		1456926	1600000	1900000	2028093	2377336
Canada US\$ million (1)		823	844	950		1000	1220	1420	1180	1225
Canada (NOSP) (2)		937648	191469	898436		898000	548475	550831	608778	644455
Finland US\$ million (1)		72	91	107		141		251	251	202
Finland (NOSP) (2)		37373	52720	77511		86000		96000	96000	80000
Hungary US\$ million (1)		88	120	107	250		201	203	203	250
Hungary (NOSP) (2)		140667	143407	144738	300000		194250	240155	240155	316448
Indonesia US\$ million (1)		343	524		625		800		669	575
Indonesia (NOSP) (2)		4277186	4765353		5427310		7557328		5779226	5784728
Italy US\$ million (1)		1736	1955	2353	2979		3050	3580	3368	3361
Italy (NOSP) (2)		260000	260000	260000	272000		310000	335000	365000	390955
Poland US\$ million (1)		458	326	488		597	682		854	699
Poland (NOSP) (2)		510000	385935	473400		645000	658000		670000	869328
Russia US\$ million (1)		264	501	896	1268		1748	2780	2866	3962
Russia (NOSP) (2)		585926	1146573	1610612	2305318		2495010	3375849	4413918	4995508
Singapore US\$ million (1)		117	192	261	318			325	264	262
Singapore (NOSP) (2)		57000	255000	315000	398152			575000	566000	4647727
South Africa US\$ million (1)	184		180	284		546		708	708	612
South Africa (NOSP) (2)	300000		400000	450000		676000		934000	934000	1075000
Sweden US\$ million (1)		85	160	260		250	330	400	400	388
Sweden (NOSP) (2)		98500	100000	100000		103000	330	100000	100000	100000
Thailand US\$ million (1)	444		512	800		100	1363	0	1583	1559
Thailand (NOSP) (2)	3200000		3800000	4000000		7000000	4100000		5400000	10000000
Ukraine US\$ million (1)			109	151		289		449	449	540
Ukraine (NOSP) (2)			281715	421066		480000		708347	708347	1436100
United Kingdom US\$ million (1)		2024		3092		3427		3564	3564	1397
United Kingdom (NOSP) (2)		501000	0	542300		575500		419500	419500	278000
United States US\$ million (1)		26700	28700	29500	29900	30470		30800	29600	28330
United States (NOSP) (2)		12000000	13000000	13300000	13600000	14100000		15000000	15100000	16100000

Source: WFDSA (2011)

It is evident from the information presented in this chapter so far that 1) the predominant emphasis in existing studies is on marketing and personal selling features as indicated by the framework developed by Peterson and Wotruba (1996) and 2) that none of this information provides more insight into the communication behaviour among independent sales distributors that would offer some understanding of how they are persuaded to engage in direct selling activities²⁶ besides the potential rewards presented to them. While it is accepted that the social nature of many direct selling activities serves as a strong motivation for many individuals, it is reiterated that the global statistics do not provide sufficient

²⁶ Cf. Jaramillo and Grisaffe (2009).

evidence to support the increased growth and sustenance of the industry. It is also evident that the existing definitions of direct selling are of a transactional nature, with an emphasis on the exchanges between buyers and sellers.

In reference to Bauer and Miglautsch's (1992:8) criteria for a good definition under 2.1, it can be stated that these criteria have not yet been met, insofar as existing definitions do not facilitate theory development and testing in direct selling as a particular area of selling, and do not effectively communicate what direct selling is to a variety of audiences. In fact, besides brief reference to the social exchange theory under 2.3.1, the absence of references to other communication theories has been conspicuous. It is therefore essential to shift the focus towards the second perspective on direct selling identified under 2.2, so that the communication between NDSOs and independent sales distributors, as well as communication among independent sales distributors, becomes the primary consideration. Therefore, the following section provides a definition of direct selling for the purposes of this study.

2.7 NDSOs – A DEFINITION AND GENERIC DESCRIPTION

It becomes apparent from the discussions in the previous sections that existing definitions of direct selling do not encompass the theoretical concepts required for analysis from a communication theory perspective. Further, the implications of networks in themselves for the study of these organisations have to be clearly articulated to sketch the background for the theoretical discussions in the following chapters. The following definition of direct selling aims to accomplish this purpose:

Direct selling is an economic and social activity that aims to establish relationships among individuals through communication activities for the purpose of establishing markets for the selling of products and the human actions that arise out of this provide evidence that persuasion has occurred.

It has been established that independent sales distributors are members of NDSOs. Therefore the persuasion that occurs in NDSOs and extends to consumers or end users can only be identified within a theoretical framework that offers explanation of communication behaviour in organisations, and NDSOs in particular. However, such a framework can only be delineated after a description of the phenomenon that identifies its elements and components for the purposes of further analysis. Therefore, the models obtained from the marketing literature of GNLD, a prominent network direct selling organisation, are used here

as representative models of NDSOs. These models are described here for the purpose(s) of identifying theoretical frameworks for the following chapters.

The models described and discussed here are accompanied by some descriptions presented *ad pedem litterae* from a presentation presented by Bolton and Bolton (see Appendix B), a GNLD distributor in South Africa, articulated in terms of Network Theory, as described by Littlejohn and Foss (2008). With the purpose of describing NDSOs generically, the characteristics and elements of NDSOs that are apparent in these models are illuminated in the description provided below.

At first glance, the network structure of NDSOs can be clearly observed. Therefore, Network Theory is considered for discussion *argumentum ad logicam*. Littlejohn and Foss (2008:247) describe networks as “social structures created by communication among individuals and groups”. Links are created through communication that forms the lines of communication in NDSOs in particular. A significant difference between NDSOs and other types of organisations that is apparent immediately is that the lines of communication are not prescribed, as they are in bureaucratic organisations, for example. With reference to Figures 2.7, 2.8 and 2.10, the networks that form in NDSOs can be described as “emergent networks” rather than “formal networks”, as distinguished by Littlejohn and Foss (2008:247), who describe emergent networks as “informal channels that are built, not by the formal regulation of an organisation, but by regular, daily contact among members”.

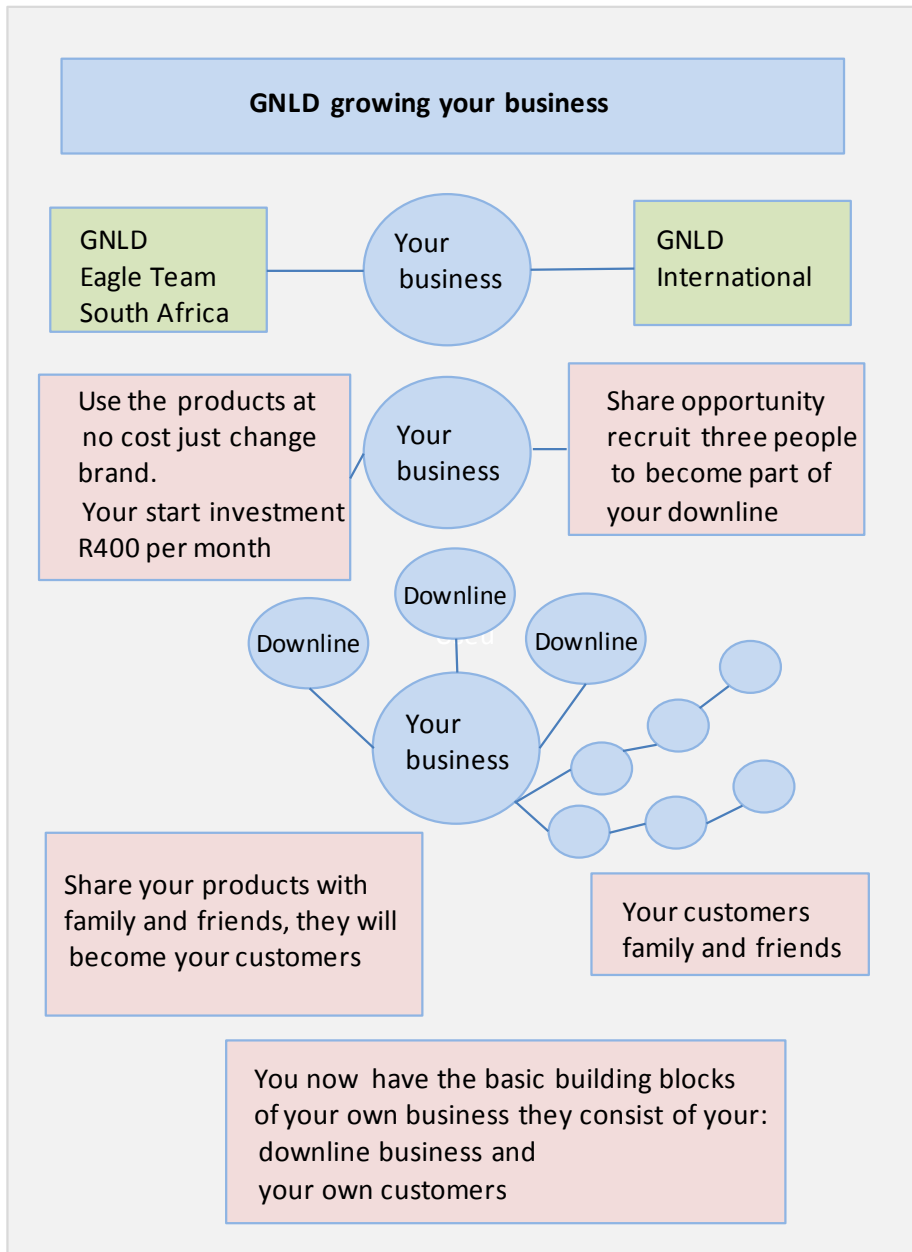


Figure 2.7: Adapted from GNLD Eagle Team Marketing Plan (Appendix B)

Figures 2.7 and 2.8 illustrate how the increasing number of links establishes new groups, which are created continuously and persistently to sustain the sales volume and number of salespeople presented in Figures 2.4 and 2.5 above. The persistent formation of new networks results from the communication links that are evidently associated with the earning potential that motivates such communication.

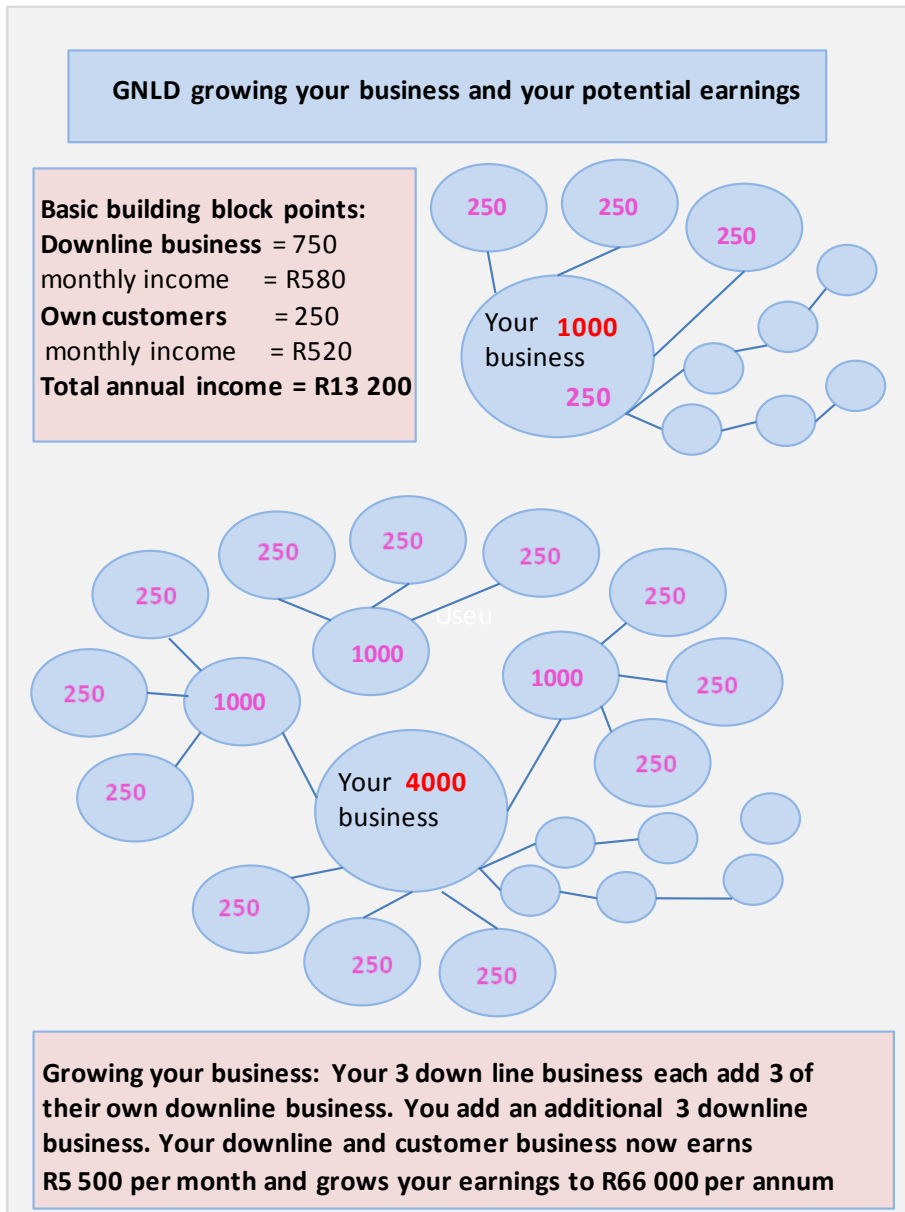


Figure 2.8: Adapted from GNLD Eagle Team Marketing Plan (Appendix B)

Network theories and approaches can be found across many disciplines, including physics, computer science, biology, economics, operations research, and sociology. In the field of Communication Studies, Network Theory can be grouped within the Cybernetic Tradition²⁷ (Littlejohn & Foss 2008). “The axiom of every network approach is that reality should be primarily conceived and investigated from the view of the properties and relationships between and within units instead of the properties of these units themselves. It is a relational

²⁷ The seven Traditions of Communication Theory as a Field by Craig (1999) are described and discussed in Chapter 4.

approach. In social and communication science these units are social units: individuals, groups/organizations and societies” (Van Dijk 2001).

As it can be observed in Figures 2.7, 2.8 and 2.10 clusters of communication link together to establish organisational networks. These networks are social structures created by the communication that occurs between individuals and groups that are formed in NDSOs. The communication creates what is referred to as “links” in Network Theory (Littlejohn & Foss 2008), represented by the connecting lines between the circular entities in Figures 2.7, 2.8 and 2.10. The multiplication of entities and links in the progression represented in these figures demonstrates the emergent nature of networks in NDSOs. Relationships are constantly formed through ongoing communication in NDSOs, and therefore the ephemeral and dynamic state of affairs in NDSOs cannot be represented in an organisation chart. Littlejohn and Foss (2008:260) note that researchers make use of “snapshots” similar to Figures 2.7, 2.8 and 2.10 to delve into complex emergent networks, as will be done throughout this study. Within a Network Theory perspective, Van Dijk (2001) developed a conceptual model of a network society that mirrors and enhances the marketing models used by GNLD, and used here as generic NDSO models (Figures 2.6, 2.7 and 2.9) illustrated in Figure 2.9 below:

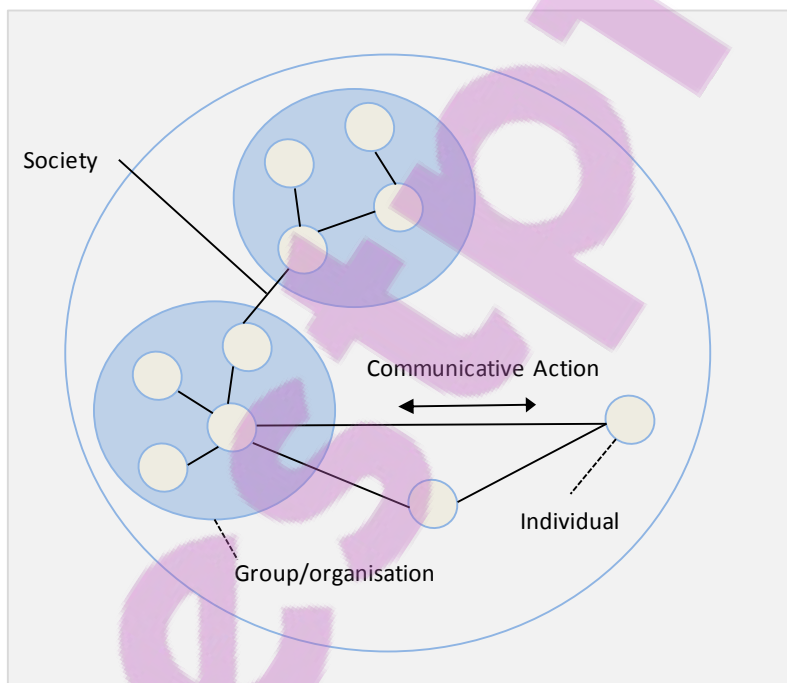


Figure 2.9: Networks connecting individuals, groups, organisations and societies (Van Dijk 2001)

This conceptual model is included here for the purpose of illustrating the resemblance between NDSOs and Network Theory models²⁸, while its content and application will be returned to in the next chapter. Littlejohn and Foss (2008) acknowledge that theoretical literature on networks and Network Theory is vast, and therefore their summary of some of the basic ideas are presented *ad pedem litterrae* below insofar as they describe NDSOs, the focus of this study.

The basic structural idea of network theory is connectedness, that is, the idea that there are relatively stable pathways of communication among individuals in NDSOs. Individuals who communicate with one another are linked together into groups that are in turn linked together into overall networks. Every person has a unique set of connectedness with others in the organisations, in other words, “personal networks”. Individuals tend to communicate more frequently with certain other organisational members, and form “group networks”. In NDSOs individuals consciously and purposefully create new networks that overlap with other personal networks, such as friends and family, or other business networks, such as co-employees at their other, mostly full-time, places of employment. NDSOs typically consist of many smaller groups linked to larger groups in organisational networks, as can be deduced from Figures 2.7., 2.8 and 2.10. When such networks are analysed, attention can be drawn to dyads, triads, groups, sub-groups, and different groups linked to one another in a global network, for example.

Besides looking at “parts” of networks, network analysis can also look at the qualities of those “parts”. The same links within a network can fulfil several functions, such as friendship, information sharing, influence, support, and so forth. This aspect of networks is referred to as “multiplexity”. The basic unit of the organisation is the link between two persons in Network Theory. The *organisational system* consists of innumerable links that cluster people into groups and connect them to the organisation – more so in NDSOs than in other types of organisations.

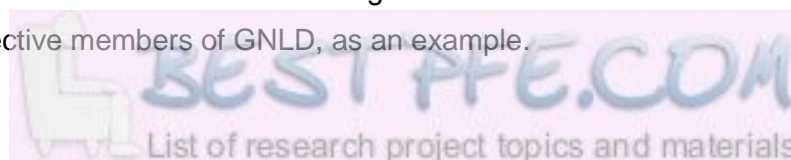
A link can be defined by its purpose(s), how much it is shared, and its function(s) within the organisation. Most links have more than one purpose (friendship, information, support, influence, and so forth). Links can also define a particular network role, meaning that they connect groups in particular ways. Members of organisations fulfil a number of roles, through networks, as they communicate with one another. Nelson (2003), for example, reiterates that

²⁸ Cf. Network theory and analysis (2010); Carl (2005).

the training and support of new distributors are the key roles of sponsors in network marketing.

A “bridge” refers to a member of a group who is also a member of another group. A “liaison” connects two groups but is a member of neither. In NDSOs, for example, a liaison would refer to an individual who introduces an independent distributor to her or his friend(s), while s/he is not involved directly with any NDSOs. In Network Theory terminology, an “isolate” is an individual who is not connected to anyone else.

The “degree” to which individuals are connected to others is also considered in Network Theory: “in-degree” refers to the number of contacts other persons have with an individual, while “out-degree” refers to the number of links an individual initiate with others. In NDSOs the “out-degree” is of particular importance because of the strong emphasis on recruitment of new members, as discussed earlier. “Centrality” is another key term in Network Theory: it refers to the extent to which an individual is connected to everyone else and many variables relating to it can be considered, as will be explored in the next chapter. Researchers utilising Network Theory also analyse qualities of links among individuals. As such, links can be described as direct (straight link between two persons) or indirect (linked through a third person). The “degree of separation” refers to the number of links between an individual and any other person. Links also vary in terms of “frequency” and “stability”, in other words, how often they occur and how predictable they are. While the interaction between independent distributors and clients, and between independent distributors and prospective recruits, and among independent distributors is not predictable because of the emergent structures that change continuously, the frequency of interaction in NDSOs is evident in the growth in numbers illustrated in Figures 2.4 and 2.5. Organisations, evidently, never consist of single networks, as all individuals can be assumed to form various other personal and social networks that necessarily overlap. Littlejohn and Foss (2008:262) say that most networks are multifunctional or multiplex, and that they may concentrate more on one function than on another. In some organisational networks emphasis may, for example, be placed on authority or instrumental networks, while in others, such as NDSOs, friendship, affiliation, information, production and innovation may be considered more important. Nelson (2003:3) demonstrates the functional orientation in NDSOs by stating, “another key factor in retaining distributors is for the sponsor and upline to give genuine support and training. The theory of network marketing is beautiful in concept – people helping people to maximise their network relationships to produce residual income.” Figure 2.10 illustrates the income potential presented to prospective members of GNLD, as an example.



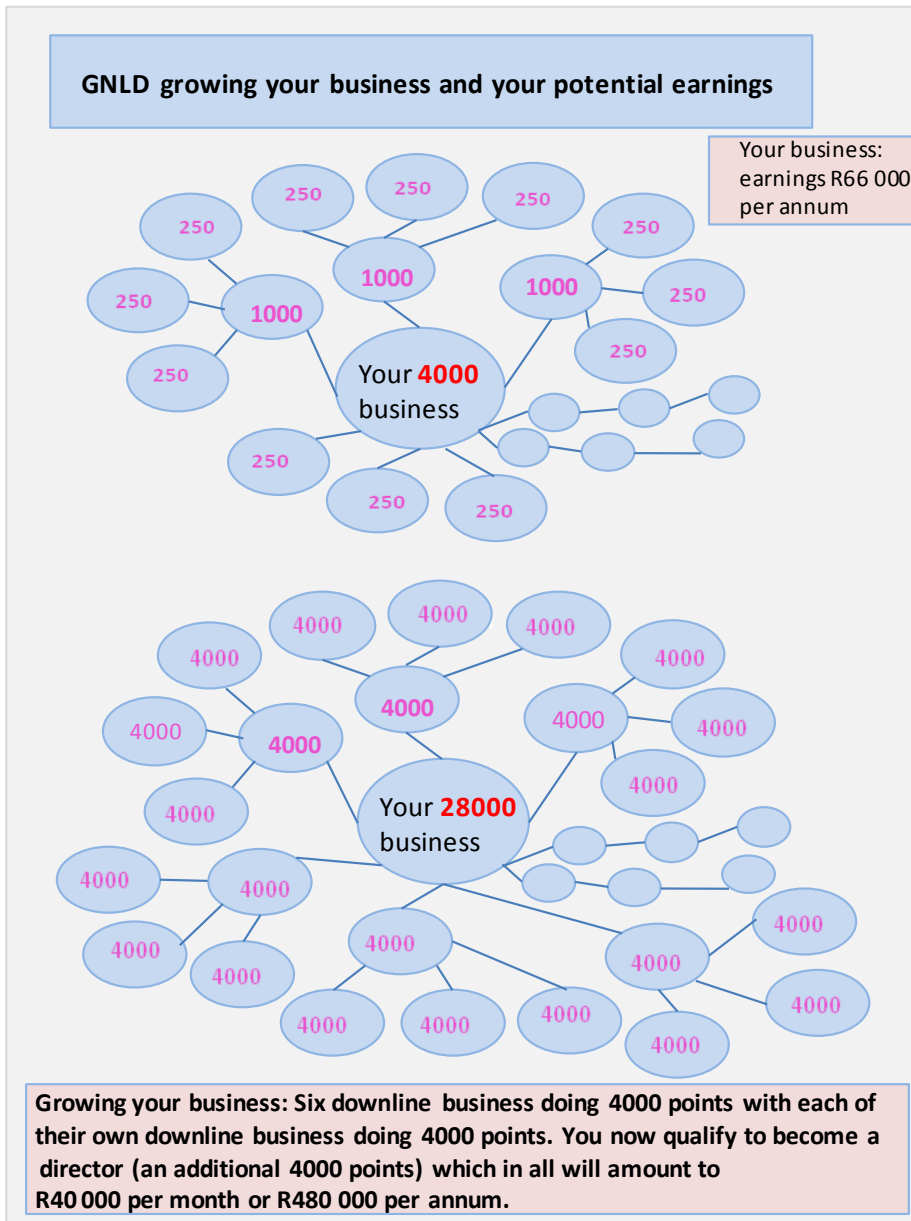


Figure 2.10: Adapted from GNLD Eagle Team Marketing Plan (Appendix B)

A network can also be characterised by a number of qualities, such as size and connectedness. The size refers to the sheer number of people, while connectedness refers to the ratio of actual links to possible links (which are presented as infinite to members of NDSOs). A highly connected network is strong and close, and such networks can exert much influence by establishing norms for thought and behaviour, as is often seen in NDSOs. Figure 2.10 illustrates the formation of groups and communication links among individual members and groups in NDSOs.

The frequency of engagement and interaction in NDSOs often results in intense degrees of connectedness, as personal and business spheres are integrated, while cohesive networks form in the process. A highly centralised system has lines going from groups into smaller numbers of hubs, or sub-groups. Decentralised systems, like NDSOs, have more connectedness among participants overall, with no one group controlling the links among them. As such, NDSOs contain continually emerging networks, creating more connections persistently. While independent distributors are connected to other members of the multiple sub-systems they create within NDSOs, they have the freedom to contact anybody, and therefore they are connected throughout, not only *within the organisation, but to the entire social (and other) system(s)*. The connections that can be established in organisations such as NDSOs can be analysed within a theoretical framework such as network analysis.²⁹ This form of analysis will be considered in relation to the final arguments in this study, where a theoretical explanation of the data in this chapter is presented.

There is a great deal of theoretical work addressing the way in which networks function in organisations, with specific reference to communication theory as a field³⁰. As Littlejohn and Foss (2008:262) note, Network Theory covers areas such as the control of information flow, the identification of common interest that create links among individuals, the building of common interpretations, the enhancement of social influence and the exchange of resources. Such areas of interest are all relevant to the study of NDSOs, although recent studies indicate that the new developments in Network Theory lean towards the integration of other perspectives (Parkhe, Wasserman & Ralston 2006), and systems perspectives in particular (Pathak, Day, Nair, Sawaya & Kristal 2007; Doolin & Lowe 2002).

It is imperative to note here that the existing theory referred to above relates predominantly to networks within organisations and do not address networks that create organisations such as NDSO. While many of the features and characteristics that apply to networks necessarily apply to NDSO, the discussions in the following chapters aim to explore how communication creates networks and how networks in turn increase communication and hence meaning to the extent that NDSO are created and sustained in spite of the empirical evidence presented in this chapter that suggest the improbability of success for the vast majority of their members. With the consideration of the distinctions between NDSO and other types of organisations, Table 2.11 further below summarises some key indicators that will become more apparent through the progression of the discussions in the following chapters.

²⁹ See Miller (2009:72-75) for a comprehensive discussion on network analysis.

³⁰ See Beyers (1997); Daniels, Spiker and Papa 1997); Dues and Brown (2001); Fielding (2006); Krepps (1990); Morgan (1998); Pace and Faules (1994); Toth (2008) and Verwey and Du Plooy-Cilliers (2003).

Further to the discussion on network theory and analysis and the network model illustrated in Figure 2.9 above, Van Dijk (2010) developed a theory outline of a multilevel theory with the focus on complex adaptive systems (that will be described and discussed in chapter 4) with the following purpose: "...to argue that the all-pervading network structures indicated give a cause for an interdisciplinary and multilevel social and communication theory" (Van Dijk 2010:1). Van Dijk (2010:2) outlines the first axiom related to network theory that he derives from systems theory and applies to social reality, and also three sub-claims related to it. These claims are listed here below and are changed to refer to self-creating (autopoietic) systems instead of complex adaptive systems:

A1: Networks increase the self-creating capacities of system units in relationship to their environment by interaction, variation and selection.

A1a: Networks increase interactions within and between system units.

A1b: Networks increase chances of variation within and between system units.

A1c: Networks increase options for selections by system units.

While Van Dijk (2010:2) argues that adaptation occurs through three successive processes derived from systems theory, namely interaction, variation, and selection, it is reiterated that the discussion on Luhmann's communication synthesis in the chapters that follow focuses specifically on the self-creation of systems that will be applied to the theoretical description of the networks established in NDSO in the final chapter. Leydesdorff (2000) also says that social network systems are multi-layered and he applies Luhmann's theorising about communication specifically to the description of networks. These applications will be articulated clearly in the following chapters. The purpose of the reference to complex adaptive systems and self-creating systems at this point is to show that the discussions in the chapters that follow steer towards the explanation of the communication(s) that create networks. It is also noted here that Luhmann (1981; 1986; 1989; 1995; 1996; 2002) argues at high levels of abstraction and that his theorising may be misinterpreted as esoteric at certain points. It is therefore imperative to retain the focus on the purpose of these discussions and to caution the reader not to get distracted by the level of argumentation that is unavoidable when working with Luhmann's social theory and his premises relating to communication and meaning in particular. Verwey, Du Plooy-Cilliers and Du Plessis (2003) provide a link between existing theorising on network organisations and the theoretical arguments presented in the chapters that follow in Table 2.11 here below.

Table 2.11: The shift in communication architecture, systems and technologies

TRADITIONAL HIERARCHY	NETWORKED ORGANISATION
COMMUNICATION TECHNOLOGY	COMMUNICATION TECHNOLOGY
Communication pattern and flow determines the selection of appropriate communication technologies	Possibilities of new communication technology determine communication patterns and flow of information in networked structures
Limited connectivity	Unlimited connectivity
One to many connectedness	Many to many connections
Limited by time/distance constraints	Overcomes constraints of locale and time
COMMUNICATION STRUCTURE AND ROLES	COMMUNICATION STRUCTURE AND ROLES
Communication processes internally focused; static communication structures and fragmented communication; processes which are tightly linked	Externally focus, flat communication structures which integrate loosely linked communication processes
Communication structures used to control individual behaviour in work role	Communication structures empower autonomous work teams
Fragmented, highly specific individual communication roles	Changeable communication roles requiring broad communication competence
Vertical communication structures with limited information ownership	Integrative horizontal communication structures with broad access to information
Formalised communication roles, activities, networks and decision-making systems	Informal communication roles, activities, communication networks and decision making systems
Hierarchy is the primary means of coordination and control	Lateral communication processes are the primary means of co-ordination and control
COMMUNICATION SYSTEMS	COMMUNICATION SYSTEMS
Communication links restricted mainly to work area	Many external communication links
Restricted and infrequent information sharing and/or generation; information is not generated by the user, it is communicated on an ownership basis	Easy access to abundance of information; in many cases information is self-generated
Vertical communication based on hierarchy	Network typed communication
Inflexible centralised acquisition and allocation of communication resources	Flexible, localised acquisition and allocation of communication resources
Co-ordination and control of communication process through communication standards, rules and policies and procedures	Control and co-ordination of communication process through strategic intent and shared communication values
Fragmentation and lack of integration with regard to communication process	Aligned and integrated communication and shared coherence
COMMUNICATION CULTURE	COMMUNICATION CULTURE
Defensive	Supportive

Source: Verwey, Du Plooy-Cilliers & Du Plessis (2003:179)

The implications of these distinctions will be integrated in the theoretical explanation for the creation and sustenance of NDSO presented in the final chapter.

2.8 CONCLUSION

Direct selling is a diverse industry that has a strong presence in the global market, confirmed by the statistical information provided in this chapter. The operational, tactical and strategic perspectives developed by Peterson and Wotruba (1996) provided a functional framework for the demarcation of the direct selling industry.

Regarding the scope of direct selling, the motivations of salespeople and customers appear to be a fertile area for research, particularly the communication that moves people to join direct selling organisations. Peterson and Wotruba (1996 13) hold that at an operational level, research should focus on direct selling as a communication process. They add that hypotheses involving adaptability, negotiation, listening, trust-building, and various rhetorical and persuasive devices could be tested in the direct selling setting.

The descriptions of the communication behaviour that occurs in NDSOs in this chapter make it clear that the individuals who join NDSOs do so with the understanding that they are, among other things, creating their own businesses. Therefore, they are creating new organisations in this process, or sub-organisations to these NDSOs, so to speak. The discussion of Network Theory identified some conceptual understanding of networks, although the continuous activity of creating new organisations is addressed only partially within Network Theory. Guided by Littlejohn and Foss's taxonomy (2008), the literature review in the following theoretical chapters will assess NDSOs from a systems perspective. Systems perspectives can be identified within the meta-theoretical perspective of cybernetics.

The secondary purpose has been accomplished by providing the current operational and logistical information about direct selling that directs the focus in the following chapters towards the explanation of the communication actions within NDSOs that allow for the continued existence and growth of NDSOs. The primary purpose of this chapter has been accomplished by the offering of a definition of direct selling that directs the study towards the identification of communication theory that can offer explanations not evident from the information obtained in the literature consulted for the purposes of this chapter. The following chapter continues with a study of existing literature and theories that provide explanations of NDSOs, the phenomenon under investigation in this study.

CHAPTER 3

A CYBERNETIC PERSPECTIVE ON THE STUDY OF INDIVIDUALS

3.1 INTRODUCTION

Network Direct Selling Organisations (NDSOs) have been described in the previous chapter as organisations that, from a financial reward perspective, do not benefit the vast majority of their members. Yet, it has been shown that not only does this industry comprise approximately 74 million members (as per the figures released for 2008), but it also has a global annual turnover of approximately \$117.5 billion (R823 billion) (WFDSA 2011). These organisations have been created in approximately 65 countries. NDSOs can be described as organisations that exist through the continuous creation of social networks, or social systems, which locates the theoretical field of enquiry within cybernetics.

As a meta-theoretical perspective, cybernetics has been applied extensively to the study of organisations, with reference to theoretical approaches such as structural functionalism, complex adaptive systems and Chaos Theory, among several others. However, as it has become apparent in the previous chapter, NDSOs are created by individuals who recruit more individuals, with the aim of these individuals all establishing their own networks of individuals and groups that ultimately sustain this industry, regardless of the high drop-out rate. It has further been illustrated that most of these individuals involve themselves with NDSOs on a part-time basis and that they generally have other forms of employment. Further, one of the major purposes of the independent sales distributor is to create their own “sub-organisation” and the emphasis is placed on the individual's ability to become independent through direct selling. While various group activities and social interaction sustain the individuals' activities within this organisational environment, the activities of these individuals are instrumental to sustaining this industry. Therefore, the theoretical arguments presented in this chapter aim to focus the inquiry specifically on the study of individuals, within the framework of cybernetics.

The major purpose of the conversation in this chapter is to provide a theoretical framework for the study of the individual as an organising (and self-organising), complex and self-creating system. This is accomplished by providing an understanding of the levels of complexity in systems, generally, with the distinction of the individual as a living, self-creating supra-system, specifically, and the clear articulation of the levels of analysis applicable to the

inquiry in this chapter. From the understanding of how individuals create themselves through the creation (and self-creation) of biological and cognitive, and psychological or mental systems, the next chapter then considers the field of Communication Theory to explain how individuals, through communication, create social groups such as NDSOs. With full acknowledgement that the individual does not self-create in isolation of other systems of various kinds and at various different levels at any time, all other systems relevant and related to individual behaviour and actions, such as social systems, are considered in this conversation, but addressed more specifically in the next chapter.

The secondary purpose of this chapter is to show that the study of human behaviour necessitates the transdisciplinary integration of theory, with specific reference to the study of the individual as a composite unity of biological and mental systems. This is accomplished by integrating theory from a variety of disciplines and applying this theory to the phenomena under investigation in this study.

The conversation commences with an overview of the background and foundation of cybernetics as a meta-discipline. Departing from the seminal works of the founding members of cybernetics, with specific reference to Norbet Wiener (1948; 1950), Claude Shannon and Warren Weaver (1949), Ross Ashby (1957), and Warren McCulloch (1965), as well as Von Bertalanffy (1969); who is considered to be the creator of General Systems Theory, an overview of cybernetics, its initial purposes and orientations is provided in order to assess its applicability to this study. It is shown that cybernetics incorporates a wide range of core or primary scientific disciplines, such as physics (including quantum physics and metaphysics), engineering, psychology, biology (including neurobiology), chemistry, sociology, mathematics, and economics, as well as derivatives or secondary disciplines, such as communication, anthropology, management science, biophysics, psychiatry, and several others. The applications within these various different fields become more apparent when a distinction is made between the difference in focus between first-order and second-order cybernetics. It has to be reiterated, however, that the discussion of cybernetic theory and principles cannot be sub-divided into separate areas of application because of their nomothetic character. In other words, concepts and characteristics applicable within this meta-discipline apply to both first-order and second-order cybernetics, and can be found in General Systems Theory as well as Complexity Theory.

Therefore, for the purposes of this chapter, the cross-disciplinary application of cybernetic theory and concepts is presented in four main sections. First, the application of first-order

cybernetics is considered by showing that the study of the individual as an operationally closed system is based on its founding ideas. Second, the re-assessment of the General Systems Theory paradigm provides an understanding of the close relationship between biological, mental and social systems, and articulates the levels of complexity and hence the levels of analysis existing. Third, the discussion of Complexity Theory shows the implications of studying the individual as a composite unity of biological and mental systems, insofar as the unconscious communication among various complex sub-systems within the individual is concerned. In other words, it ventures into the “black box” generally avoided within behaviourist and even social domains, as Niklas Luhmann (1996:343) confirms:

Whatever its empirical basis, whatever the conditions for perception, memory and thought, a person is a fiction necessary for continuing the process of communication; and it is a function of this fiction to assume the unity of this person and the corresponding individual human being, although the communication itself cannot control what it has to accept as a black box. A person can and will be treated as if it were a human being, and its identity helps to specify the ignorance a social system can afford with respect to bodily and mental processes of the concrete individual.

The discussion in this chapter deviates from Luhmann’s view to explore some of the dimensions of the infamous black box through the application of complexity theory. As Krippendorff (1996:316) states: “Considering the richness of the human senses and the fact that the human brain has about 11 billion unobserved neurons that either fire or rest, understanding humans by observation alone is a hopeless undertaking”. With the emphasis on the individual, the deliberation in this chapter therefore follows Capra’s (2005:33) prompting that “complexity theory now offers the exciting possibility of developing a unified view of life’s biological, cognitive and social dimensions”.

Fourth and last, the integration of biological and mental systems in the study of individual behaviour and action is realised in the discussion and application of second-order cybernetics and autopoiesis. Luhmann’s extension of autopoiesis to include social autopoiesis provides the link to the group and organisational level of analysis in the next chapter.

Without diminishing the significance and relevance of any of the theoretical contributions across a large diversity of fields and disciplines, the focus in this conversation remains on the particular theoretical applications most suitable for the explanation of the phenomena under investigation in this study, namely individuals who create NDSOs.

Given that the theoretical discussions in this chapter may appear complex, and in effort to guide the interpretation of its progression, the chapter diagram presented below aims to indicate the flow of the conversation in this chapter.

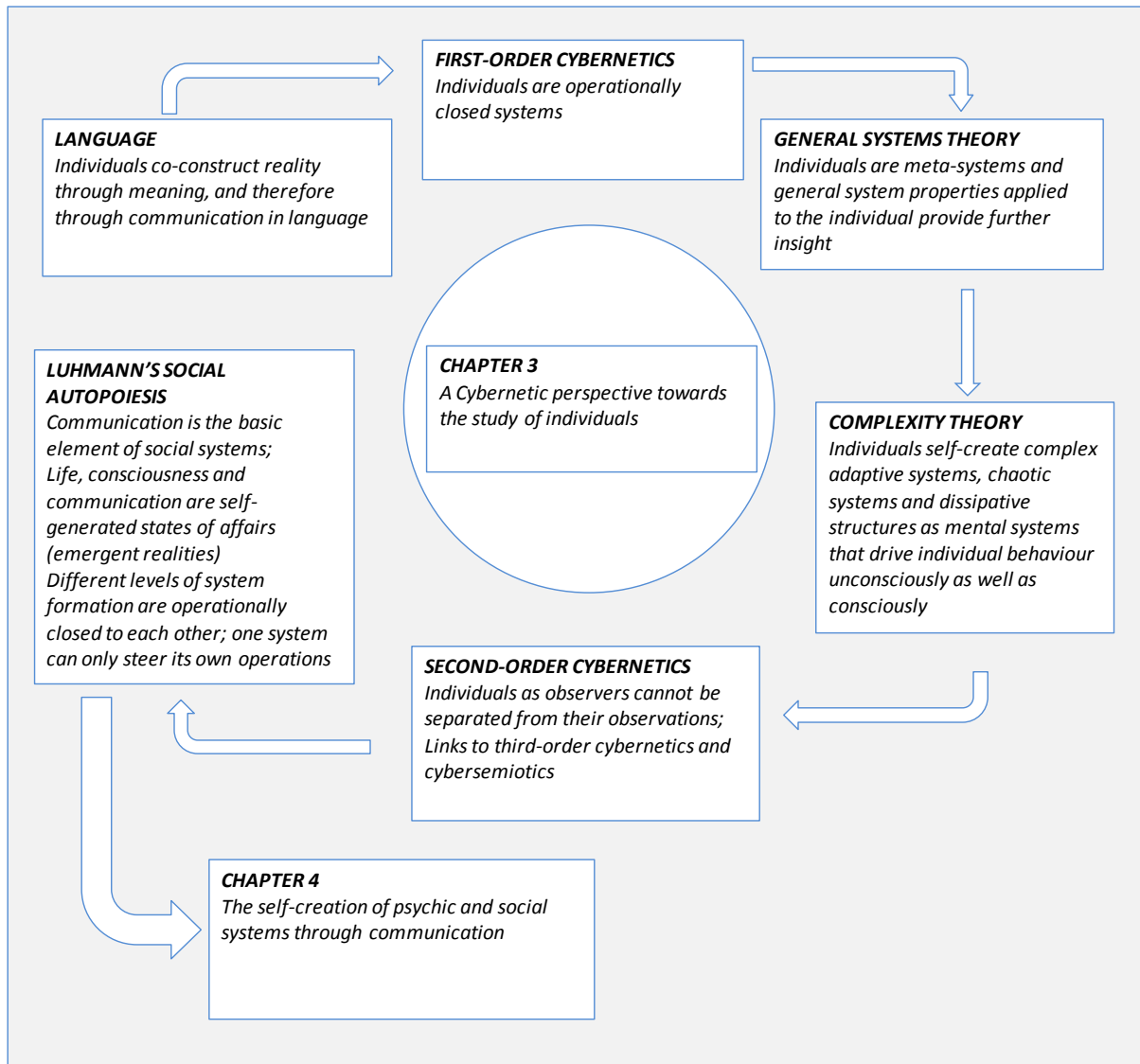


Figure 3.1: Chapter diagram

3.2 OVERVIEW OF THE CHAPTER

Scott (2001:411) states that “cybernetics was formulated by its founders as a metadiscipline with the aim not only of fostering collaboration between disciplines (interdisciplinarity), but also of sharing knowledge across disciplines (transdisciplinarity)”. Correspondingly, Wiener (1954:17) states: “It is the purpose of Cybernetics to develop a language and techniques that will enable us indeed to attack the problem of control and communication in general, but also to find the proper repertory of ideas and techniques to classify their particular manifestations

under central concepts.” Figure 3.2 below aims to illustrate the representation of cybernetics as a meta-theoretical perspective in this chapter:

As stated earlier, a discussion of cybernetics cannot be sub-divided into parts because of its interrelatedness. The sub-headings in this chapter are created for the purpose of explicating particular ideas and theoretical principles that emerged from specific perspectives developed and presented by the founders of cybernetics, which occurred almost concurrently and, to some extent, through the initial dialogue that occurred between and among them, as Gordon Pask’s Conversation Theory illuminates (Scott 2001).

The understanding of the key theoretical concepts that developed within first-order cybernetics is of fundamental importance to the understanding of individuals as operationally closed, informationally open systems. Further, an understanding of communication, also as the transfer of signals, and not only linguistic interchange that occurs consciously as well as unconsciously between and among biological and mental systems, is of fundamental importance. Information Theory is therefore discussed as a key theory within first-order cybernetics that provides insight into the theoretical discussions that follow.

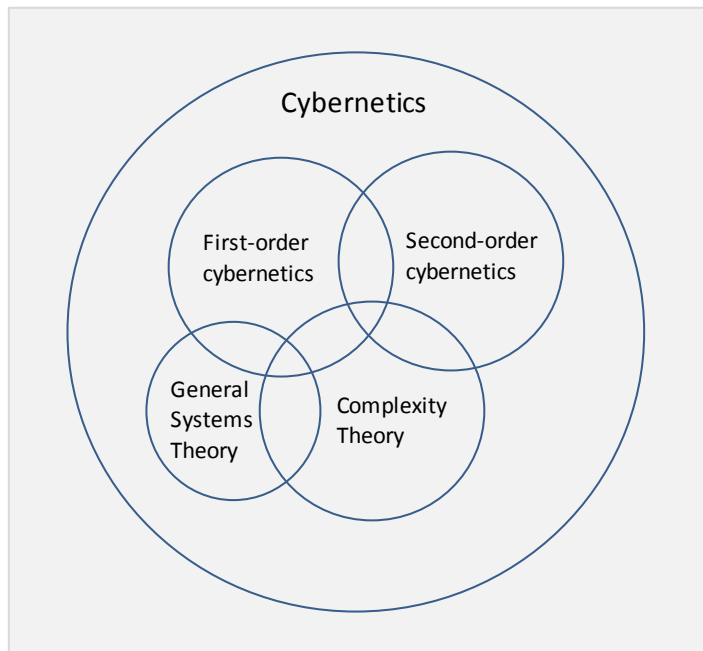
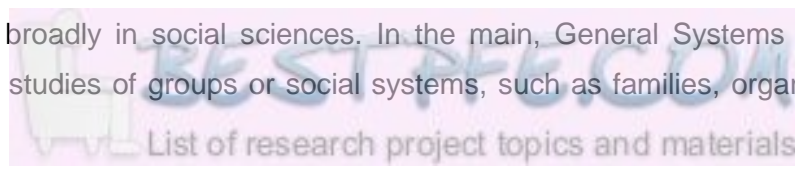


Figure 3.2: Cybernetics as meta-theoretical perspective

General Systems Theory identifies and describes system concepts and characteristics that have been applied broadly in social sciences. In the main, General Systems Theory has been applied within studies of groups or social systems, such as families, organisations, or



economic systems. As these applications of General Systems Theory are well represented in contemporary publications, the discussion on General Systems Theory concepts and characteristics included in this conversation concentrates primarily on their application to the study of individuals, and aspects of the individual that can be extrapolated to the study of groups and social systems that apply to the conversation in the next chapter.

The study of complex systems is the central part of this conversation for a number of reasons. First, with its origins in the study of weather systems, physics and thermodynamics, the similarities between complex natural and human systems have not been made very obvious in previous communication studies. It is applied to the study of individuals here in order to offer insight into how individuals create themselves, consciously and unconsciously. Second, it illustrates that certain system concepts and theoretical principles apply to many diverse systems, such as human brains and economic systems. Third, through the integration of disciplines such as biology, physics, psychology, communication, and neuroscience, it facilitates an assessment of existing studies relating to the co-creation and co-functioning of many systems and sub-systems that offer explanations regarding individual behaviour and action.

The last section discusses second-order cybernetics and autopoiesis, and aims to show how the study of individuals has shifted towards a constructivist epistemology. In other words, it becomes clear in this conversation that the observer cannot be separated from the observation; that the individual does not exist within an environment, but creates it; and ultimately, that an objective reality does not exist. This section sheds further light on the close integration between first-order cybernetics, complexity theory and second-order cybernetics, as evidence that the study of individual behaviour and action necessitates inter- and transdisciplinarity.

From the constructivist epistemological stance adopted in this study, it is accepted that, through the interpretation of theoretical premises, social scientists have to accept “responsibility for the consequences of intervening into their domain of inquiry” as Krippendorff (1996:313) states:

... when we publish scientific theories of communication, we speak in our capacity as communication scholars and assume the authority to construct the otherness of Others. Whenever such theories re-enter people’s lives, whenever they are talked of, rearticulated, and adopted as folk-theories, whenever they are realized and tested in practice, the particular spaces they offer for people to make their home in them and meet each Other, they are likely influenced by the authority attributed to them. This demands of social theorists to assume a considerable responsibility.

It is therefore acknowledged that the conversation in this chapter represents a subjective representation of the co-creation of knowledge, as explained in Gordon Pask's Conversation Theory.³¹ Krippendorff (1996:312) states that: "Communication defined by and embodied in those speaking of it, thus becomes a fundamentally local and self-referential phenomenon." As considered in the discussion of language below, but also in the discussion of first-order cybernetics in particular, some of the previous and still existing limits to the application of first-order cybernetics in social sciences can be attributed to the absence from these conversations where the meanings co-created by the founding members of cybernetics were not as apparent and were not translated sufficiently.

Deetz (1996:192) confirms the relationship between language and constructivist epistemology when he states:

Language does not name objects in the world; it is the ore to the process of constituting objects. The appearance of labelling or categorizing existing objects is derived from this more fundamental act of object constitution through language. The world can be constituted in many ways, depending on alternative systems of valuing.

Considering that this chapter presents a cybernetic perspective with its explicit constructivist epistemology, language is considered a key element here. Krippendorff (1996:317) argues that the study of individuals as linguistically capable beings requires an approach radically different from the detached observer position adopted in behaviourist theories. Considering that much of the knowledge in this chapter is constructed to provide evidence of human cognition, Krippendorff's (2007) assertion that "All evidence of human cognition is extracted from *language use or constituted in language*" (my emphasis), it is therefore of the utmost importance to articulate some of the considerations regarding language that underlie the discussions in this chapter.

3.3 LANGUAGE: KEY CONSIDERATIONS IN THIS CHAPTER

The centrality of language in cybernetics can be seen in the seminal works of Wiener (1950), McCulloch (1965), Shannon and Weaver (1949), Maturana and Varela (1980), Luhmann (1984; 1995), Mead (1938), and several others. Language is a multidimensional subject that is studied from within various fields, such as linguistics, hermeneutics, structuralism and poststructuralism, the philosophy of language, linguistic anthropology, neurolinguistics,

³¹ See Scott (2001b) for an explanation of Pask's Conversation Theory as representative of constructivist epistemology that obtains further meaning when the co-creators of cybernetics listed in Table 3.2 are considered. It is also noted that several papers by authors such as Geyer (1992; 1995), Scott (1996; 2001a; 2003), Ashby (1957), Von Foerster (2003), Krippendorff (1996), McCulloch (1965), and several others, make frequent reference to their "conversations" that provide evidence of their co-creation of knowledge within cybernetics as a meta-theoretical domain of knowledge.

biolinguistics, cybersemiotics, and possibly several other derivative fields. Language, within cybernetics as a metaperspective, is generally discussed as a medium of communication that is distinguished by the use of signs (Luhmann 1995:160), although Radford and Radford (2005:61) show that de Saussure (the founder of structural linguistics) “proposed a scientific model of language as a closed system of elements and rules that could be described quite independently from the psychological subjectivity of any particular user of that language”; while post-structuralism, on the other hand, continued the inquiry into the organising principles of “a language system” but rejected the stance that “the language system can be described in an objective and scientific manner”, as language is seen as highly contextual.

A more detailed discussion of structuralism³² and post-structuralism would take this discussion far afield. The argument presented here is that structure *per se*, and language as the embodiment of structure in the conscious exchanges that occur between and among individuals, is at the core of all cybernetic perspectives, in different ways. Luhmann (1995:272) makes the following remark about language and structure:

Language transfers social complexity into psychic complexity. But the course of consciousness is never identical with linguistic form, not even in the “application” of linguistic “rules” (just as living systems, the autopoietics of reproduction is a structured process but never exists as the application of structure). One need only observe one’s own groping thoughts, the search for correct words, the experience of failing to find them, the hesitation in making up one’s mind, the temptation to be distracted by the noise that one hears, or the resignation when, finally, nothing turns up and one immediately sees that much more is present than the linguistic sequence of words with meanings that can be isolated for communication. Thinking must also perform the thoughtless self-continuation of consciousness; only thus can consciousness confirm its own existence.

While language is a key consideration in its many forms across most perspectives within cybernetics as a meta-perspective, it is not discussed as a system in itself in this chapter. Authors such as Turchin (1997) do consider language as a system³³ within cybernetics as a meta-theoretical perspective.³⁴ A key figure in the development of Complex Adaptive Systems theory, John Holland, along with a team of other theorists, has prepared an extensive paper on language as Complex Adaptive Systems, which is outlined in brief below in the discussion of complex systems. Other discussions of language in this chapter will treat it as a medium of communication, whether conscious or unconscious, while the next chapter includes the assessment of language within the semiotic, cybernetic, sociocultural and

³² See Radford and Radford (2005) and Clark (2007) for the discussions on structuralism and post-structuralism that include reference to and criticism of Parsons’s structural functionalism.

³³ Cf. Fiol (2002)

³⁴ See Turchin (1997) for a discussion of language as a multilevel system in which he distinguishes lower levels which are close to sensual perception and higher levels that constitute a new linguistic reality, which he describes as a superstructure over lower levels. He explains that predictions produced by higher levels are formulated in terms of the lower levels in a hierarchical system where “the top cannot exist without the bottom”.

sociopsychological traditions of Communication Theory as a field, with specific focus on symbolic convergence, which offers a theoretical explanation for the co-creation of realities within NDSOs.

It follows from the information in Table 3.1 below that the dialogue among the founders of cybernetics occurred in the scientific language appropriate to these disciplines, and also that a diversity of natural languages was represented. Besides that, it is important to consider the implication of the diversity of language that exists within cybernetics, in reference to the diversity of natural languages and the availability of translated copies of core texts, that also corresponds with linguistic relativity, and the integration or unification of scientific languages (such as biology, mathematics and physics), which has been the aim of cybernetics from the outset, as noted above. These different considerations regarding language are illustrated in Table 3.1 and discussed below.

Table 3.1: Summary of discussion

TOPIC	BRIEF DESCRIPTION
Natural language	Accessibility of texts
Scientific language	Interdisciplinary applications
The Sapir-Whorf hypothesis: Linguistic relativity	Application of theoretical concepts
Chomsky's generative grammar: Biolinguistics	Language and autopoiesis
Languaging	Constructivist epistemology

3.3.1 Natural language

It has to be emphasised throughout this conversation that the theoretical premises presented here do not present “new” ideas. The perception that “autopoiesis”, for example, represents a paradigm shift can be linked directly to language. The seminal work relating to autopoiesis has been developed by Maturana and Varela since 1928, and Luhmann's *Social Systems* (1995) was published in German in 1984. Von Foerster's work on second-order cybernetics has been published since the late 1940s. These works have been translated into English only many years later and some are still available only in German. Therefore it can be deduced that the interdisciplinary application of cybernetic concepts and premises may have been limited because of the natural languages they were published in. This presented a challenge for two reasons: 1) sources such as Von Bertalanffy (1969), Von Foerster (2003, and Luhmann (1995), for example, make reference to actual German terms, which confirms the principle of linguistic relativity addressed under 3.3.3 below. In other words, some of the theoretical terms developed in German (as one example) did not have exact equivalent

meaning in English; and 2) Mathematics was the “universal” language that initially established the foundations of the knowledge shared among the founders of cybernetics, as their original publications reveal.³⁵ With reference to Gordon Pask’s Conversation Theory, it can be argued that because of the corroboration among scientists the burden of the interpretation and application of purely mathematical principles and concepts has since been lightened to make natural scientific language more accessible to social sciences.

As the conversation progresses, it will emerge that the application of natural scientific principles enables the abstraction of concrete principles to non-tangible cognitive processes. Social sciences and humanities are inextricably intertwined with natural sciences and technology, as “any shift in the modes of knowing and acting associated with science and technology not only warrants social and cultural analysis”, but also modifies the grounds on which the analysis of communication analyses are predicated (Mackenzie 2005:45). As it is illuminated below, the scientific language in which the initial dialogue among cyberneticists occurred excluded social scientific interpretation to a large extent, as Wiener (1954) noted in his second publication of his introduction to cybernetics.

3.3.2 Scientific language

In *The Human Use of Human Beings*, Wiener (1954), who was a mathematician, attempts to shed light on the application of natural scientific and mathematical concepts and theoretical principles in social studies. A closer look at Shannon and Weaver’s *The Mathematical Theory of Communication* (1949) shows that they endeavour to do the same, and some of these concepts have indeed been applied in Communication Theory, as noted earlier. However, as this conversation aims to show, the interdisciplinary application of concepts within physics, engineering, mathematics, and biology has to some extent been thwarted by errors in translation, to one extent, and by linguistic relativity to another, as discussed below. The discussion of first-order cybernetics below shows that while the study of “closed systems” may have appeared mechanistic and may have appeared to promote the development of structural functionalism, bureaucracy and other managerialist orientations in social systems in general, this is not actually the case. On the contrary, individuals (who are composite unities of systems) and several other social systems are in fact closed systems,

³⁵ See Wiener (1948; 1954), McCulloch (1965); Ashby (1957); Shannon & Weaver (1949); Von Foerster (2003); Von Bertalanffy (1969; 1972); for examples of the concepts and principles that were presented in mathematical language and that formed a great part of the content and shared orientations at the inception of cybernetics as a meta-perspective.

and hence the re-assessment of the original cybernetic theories offers new insight regarding the behaviour and actions of individuals.

Rather than being a limitation, the application of mathematical principles to social studies provides evidence that, contrary to the initial behaviourist propensity towards certainty, predictability and irrefutability in scientific studies, natural scientific evidence has substituted these criteria with a new understanding of uncertainty, unpredictability, non-linearity and indeterminism (Prigogine 1996). Van Dijkum (1997:725-726) states that “the practice of mathematics shows that at last important results can be translated into statements of natural language”. He explains that natural language not only has a richer structure, as was proved by Chomsky’s theory of generative grammar (1951), but also more possibilities to justify statements “than the limited corpus of most scientific logic systems”. Bailey (2001:41) argues that the unification and interdisciplinary standardisation of systems terminology across disciplines have not yet been realised and offers certain strategies that can be adopted in order to achieve this goal.³⁶ Following Bailey’s suggestions, in cases where a general term, such as “chaos”, for example, can be adapted for application to the study of *the individual* within communication as a field, this strategy will be applied. In other cases where a general term obtains context-specific meaning, it will be preceded by a prefix, such as “social entropy” for example.

Further to this problem with the various domain languages involved in cybernetics as a meta-discipline, it is also noted here that, while one of the main purposes of General Systems Theory was to create a general language that could enable cooperation and integration among various disciplines in the pursuit of knowledge, this objective has not yet been accomplished (Bailey 2001). A possible cause of the misunderstanding that still exists may be linked to the challenge Von Bertalanffy (1969) describes as “the relativity of categories”, generally referred to as the Sapir-Whorf hypothesis or linguistic relativity, that is considered here below.

3.3.3 The Sapir-Whorf Hypothesis: Linguist relativity

The principle of linguistic relativity can be described as the idea that varying cultural concepts and categories inherent in different languages can affect the cognitive classification of the experienced world in such a way that speakers of different languages not only

³⁶ See Bailey (2001) for a full discussion on the unification of concepts and terminology across disciplines and strategies suggested to this effect.

perceive the world differently, but also think and behave in different ways because of it. Whereas the theory of generative grammar, discussed below, represents the commonly held belief that the cognitive processes of all human beings have a common logical structure that operates prior to and independently of communication through language, linguistic relativity proposes that reality is already imbedded in language and therefore that people's thought processes and the way they see the world are shaped by the way the grammar of a language is structured (Littlejohn & Foss 2008:317-318).

Linguistic relativity can therefore be considered to apply mainly to a social level of analysis that is addressed in the next chapter. Concerning the foci of the conversation in this chapter, it is relevant to note that linguistic relativity is considered relevant to the theoretical discussion in this chapter insofar as some of the central texts, such as Luhmann's *Social Systems*, as well as Von Foerster's seminal works, have been translated from German. While the denotative meanings of some of the concepts they refer to are apparent in various different publications, it is also apparent that the connotative meanings within different theoretical contexts are not as apparent. This is evidenced by frequent citations of actual German terms such as *verstehen*, *eigenvalues*, *dasein*, and so forth in various texts. It is therefore accepted that the interpretation of different theoretical concepts and principles in this conversation is limited to the understanding of the broader theoretical context(s) in which they were developed and articulated. It is also noted here that similar and various contentions regarding language, including syntax and semantics, jointly and respectively, can be considered from perspectives such as hermeneutics, and again, structuralism and post-structuralism, or structural linguistics, although these considerations go beyond the scope of this study.

It is further noted here that contrasting views of relativism³⁷ exist, but that further pursuit of the subject at this point will lead the conversation astray. It is considered to be more relevant to the understanding of individual thought processes and individual actions that form the core of the discussion in this chapter to introduce Chomsky's theory of Generative Grammar and its relation to biolinguistics, which provides a link between language and autopoiesis, discussed below.

³⁷ See Pütz and Verspoor (2000) for further discussions on linguistic relativity.

3.3.4 Chomsky's Generative Grammar and Biolinguistics

A brief introduction to Chomsky's theory of Generative Grammar is warranted in this section because of its link to the discussion below of autopoiesis and the interrelatedness of biological and mental systems. As Baars (1986) notes, Chomsky's assertion that important aspects of language acquisition can be explained adequately only through the study of innate mental processes shattered the empirical stronghold of behaviourism that dominated psychology for so many years³⁸.

The relevance of inquiries such as this becomes more apparent in the discussion below of mental systems and the initial conditions of the individual as a system. At this point it will suffice to say that views on language acquisition and use are not uncontentious, particularly as far as the distinction between syntax (structure) and semantics (meaning) is concerned. Insofar as the differences between generative or universal grammar and linguistic relativity are concerned, suffice it to say at this point that the application of these views, jointly or distinctly, can be determined by the level of analysis of any particular inquiry. Whereas biolinguistics and generative grammar consider the interaction between biological and mental systems within operationally closed systems within the individual, linguistic relativity supports the exploration of socially constructed realities among informationally open systems.

A clear distinction between open and closed systems and the implications for the study of individuals is made in the following section, where first-order cybernetic concepts are assessed for the purposes of this study. Without further elaboration on the differing views regarding the biological and social geneses of language, this part of the discussion concludes with Von Bertalanffy's observation, as he states: "Thus, the categories of our experience and thinking appear to be determined by biological as well as cultural factors"³⁹ (Von Bertalanffy 1969:248). The last consideration illuminated for the purposes of this chapter is the concept "languaging".

³⁸ Also see Chomsky (2006:vii-viii) for his arguments relating to "the internal cognitive systems that enter into action, and, beyond that, the basis in our fixed biological nature for the growth and development of these internal systems".

³⁹ See Chapter 10 in Von Bertalanffy (1969) for his discussion of Whorf's hypothesis and his considerations regarding the relativity of categories. His reference to categories can also be related to secondary mental systems identified by Carlston (1994), which are discussed below in the consideration of theories of complex systems applicable to the inquiry in this chapter.

3.3.5 Linguaging

The term “linguaging” appear in discussions that revolve around second-order cybernetics, and some clarification of these terms is necessary. Krippendorff (2007) says that second-order cybernetics is a discourse or an “organised way of linguaging”, and that “cyberneticians constitute a discourse community, dedicated to advancing its core ideas – circularity, process, information, [and] participation (involvement) in the world”. Scott (1996:397) defines linguaging as language that arises as behaviours. The term is usually used within the context of second-order cybernetics to explain an observer’s construction of self and reality. Brier (1996:234) offers the following explanation:

The process of human knowing is the process in which we, through linguaging, create the difference between the world and ourselves, between self and non-self, and thereby to some extent create the world by creating ourselves. But we do this by relating to a common reality which exists in some way before we make the difference between ‘the world’ and ‘ourselves’.

“The world” referred to here is assumed to include “others”, and therefore the distinction between “self” and “others”. Linguaging is therefore understood as referring to the distinction between self and others through processes of differentiation. Von Foerster (2003:295) provides a visualisation of linguaging when he states: “[Similar to] when we say ‘It takes two to Tango,’ I am saying, ‘It takes two to language’.” In other words, linguaging can be understood as the co-creation of meaning, also referred to as “structural coupling” in autopoietic theory. This relates to the understanding that the observer cannot be separated from the observation, which is at the core of second-order cybernetics and its constructivist epistemological grounding. Further explanation is offered in the discussion of second-order cybernetics later in this conversation.

In summary, it can be said that, overall, the conversation in this chapter represents a language of multiplexity that aims to illuminate some of the many dimensions of cybernetics as a meta-theoretical perspective. The key considerations regarding language articulated above are applied as they relate to the sections that follow.

3.4 FIRST-ORDER CYBERNETICS:

Cybernetics has a rich genealogy and the Cybernetic Tradition has been marked as the origin of modern Communication Theory (Craig 1999:121). It is considered appropriate for the purposes of this discussion to present a list and summary of the key figures in the founding of cybernetics as meta-discipline and to inform the reader of the theoretical scope of this tradition (see Table 3.2 below).

Table 3.2: Major Cybernetics and Systems Thinkers

Cybernetics and Systems Thinkers				
Name	Period	Discipline	Country	Key contributions
Ashby Ross W	1903-1972	Psychiatrist	British	One of the founding fathers of cybernetics; developed homostat, law of requisite variety, principle of self-regulating models
Atlan Henri	1931-	Biophysicist	Algerian	Studied self-organisation in networks and cells
Bateson Gregory	1904-1980	Anthropologist	British	Developed double blind theory and looked at parallels between the mind and natural evolution
Beer Stafford	1926-2002	Management cyberneticist	British	Creator of the Viable System Model (VSM)
Boulding Kenneth E.	1910-1993	Economist	British	One of the founding fathers of general system theory
Campbell Donald T.	1916-1996	Social Scientist	American	Founded evolutionary epistemology and quasi-experimental methodology
Checkland Peter	1930-	Systems Engineering	British	Creator of soft systems methodology
Forrester Jay	1918-	Engineer	American	Engineer; creator of systems dynamics, applications to the modelling of industry development, cities and the world
Klir George	1932-	Mathematical systems theorist	Czechoslovakian	Creator of the General Systems Problem solver methodology for modelling
Luhmann Niklas	1927-1998	Sociologist	German	Applied theory of autopoiesis to social systems
Maturana Humberto	1928-	Biologist	Chilean	Creator together with F. Varela of the Theory of Autopoiesis
McCulloch Warren	1898-1969	Neurophysiologist	American	First to develop mathematical models of neural networks
Miller James Grier	1916-2002	Biologist	American	Creator of Living Systems Theory (LST)
Morin Edgar	1921-	Sociologist	French	Developed a general transdisciplinary "method"
Odum Howard T.	1924-2002	Zoologist	American	Creator of systems ecology
Pask Gordon	1928-	Psychologist	British	Creator of conversation theory: second-order cybernetic concepts and applications to education
Patte Howard		Theoretical Biologist	American	Studied hierarchy and semantic closure in organisms
Powers William T,	1926-	Engineer	American	Creator of perceptual control theory
Prigogine Ilya	1917-2003	Chemist	Russian/Belgian	Studied thermodynamical self-organisation, irreversibility and dissipative structures
Rosen Robert	1934-	Theoretical Biologist	American	First studied anticipatory systems, proposed theoretic, non-mechanistic model of living systems
Shannon Claude	1916-2001		American	Founder of information theory
Simon Herbert A.	1916-2001	Economist	American	Made fundamental contributions to Artificial Intelligence, Cognitive Psychology, Management, philosophy of science and complex systems
Varela Francisco	1946-2001	Biologist	Chilean	Creator, together with H. Maturana of the theory of autpoiesis
Bertalanffy Ludwig von	1901-1972	Biologist	Austrian	Founder of General Systems Theory
Gasersfeld Ernst von	1917-	Psychologist	German	Proponent of radical constructivism
Foerster Heinz von	1911-2002	Physicist	Austrian	One of the founding fathers of cybernetics; first to study self-organisation, self-reference and other circularities; creator of second-order cybernetics
Neumann John von	1903-1957	Mathematician	Hungarian	Founding father in domains of ergodic theory, game theory, quantum logic, axioms of quantum mechanics, the digital computer, cellular automata and self-reproducing systems
Watzlawick Paul	1921-2007	Psychiatrist	Austrian	Studied role of paradoxes in communication
Wiener Norbert	1894-1964	Mathematician	American	Founder of cybernetics

Source: Adapted from Heylighen (2004)



The attempts of scientists to create a unified scientific community commenced in the late 1940s with the Macy conferences on circular, causal and feedback mechanisms in biological and social systems (Von Foerster; Umpleby 2005a). Norbet Wiener, an American mathematician, coined the term “cybernetics” in his work *Cybernetics: Or Control and Communication in the Animal and the Machine* (1948). This was followed by his publication of *The Human Use of Human Beings. Cybernetics and Society* (1954), in which he states:

In giving the definition of Cybernetics [in the original book], I classed communication and control together. Why did I do this? When I communicate with another person, I impart a message to him, and when he communicates back with me he returns a related message which contains information primarily accessible to him and not to me.

The emphasis on “control” was immediately apparent in the origin of the term “cybernetics” from its Greek meaning “steersman” (Bailey 2001; Geyer 1995). Wiener (1954:16-17) explains the relationship between control and communication as follows:

When I communicate with another person, I impart a message to him, and when he communicates back with me he returns a related message which contains information primarily accessible to him and not to me. When I control the actions of another person, I communicate a message to him, and although this message is in the imperative mood, the technique of communication does not differ from that of a message of fact. ...Thus the theory of control in engineering, whether human or animal or mechanical, is a chapter in the theory of messages.

When first-order cybernetics is applied to the study of individuals, “control” gains added dimensions and therefore requires further clarification. Early applications of control in the study of systems have been witnessed in Talcott Parsons’s structural functionalism, for example, with specific reference to a social or organisational level of analysis. However, when the individual is studied as a controlling entity who exhibits controlling characteristics on various and different individual levels (such as self-control), first-order cybernetics offers the analytical tools for a more microscopic level of analysis, as this conversation aims to show. In his book *Behaviour: The Control of Perception* (1973), Powers developed Perceptual Control Theory (PCT) in which he states: “A hierarchical structure of neurological control systems is proposed that is at least potentially identifiable and testable, in which each control system specifies the behaviour of lower level systems and this controls its own perceptions”. PCT is discussed in more detail in the conversation about the relationship between biological and mental (psychological) systems below. Brown (1966:319) identifies “control” as a general systems characteristic: “This centers on the prevention and correction of deviations in a system’s behaviour from those standards which are specified at a given time”. Although such control may be exerted in different ways within different types of systems, it can therefore be assumed to be imminent in all systems.

Considering the intellectual background of the founding members of cybernetics, as illustrated in Table 3.2, it is understandable that the application of cybernetics to social sciences, and specifically to the study of the individual, may not have been obvious. However, as was stated clearly by Wiener (1948; 1954), Ashby (1957), and McCulloch (1965), among others, the purpose of cybernetics is to study systems of various and diverse kinds and to offer a vocabulary that enables collaboration among scientific disciplines. While discrepancies may still exist regarding the application of cybernetics to social studies, Scott (2001:412) states:

The power of cybernetics as a transdiscipline is that it abstracts, from the many domains it adumbrates, models of great generality. Such models serve several purposes: they bring order to the complex relations between disciplines; they provide useful tools for ordering the complexity within disciplines; they provide a 'lingua franca' for interdisciplinary communication; they may also serve as powerful pedagogic and cultural tools for the transmission of key insights and understandings to succeeding generations.

Systems of all kinds, such as ecosystems, mechanical systems, living systems, social systems, and so forth, all co-exist and co-create and can therefore not be studied successfully in isolation of each other. To some extent, every system affects every other system. While it is understandable that the application of, for example, the first and second laws of thermodynamics and increased entropy in closed systems appeared mechanistic and foreign to the study of individuals and social systems, it becomes apparent in this conversation that these laws actually do apply to the individual as an operationally closed, informationally open supra-system. Ashby (1957:1) notes this perception as he states: "Cybernetics started by being closely associated with physics, but it depends in no essential way on the laws of physics or the properties of matter. Cybernetics deals with all forms of behaviour in so far as they are regular, or determinate, or reproducible."

With the full acknowledgement that a single study such as this cannot fully incorporate this diversity, the topics included in the sections that follow are summarised in Table 3.3 below.

Table 3.3: Summary of discussion

TOPIC	BRIEF DESCRIPTION
Open and closed systems	The individual is a composite unity of biological and mental systems that may be open or closed.
Entropy	Closed systems exhibit a natural propensity towards entropy
Equilibrium	Equilibrium represents a state of system death that the individual counters through consistent reduction, both consciously and unconsciously
Information Theory	Information Theory provides insight into the unconscious communication which occurs between and among biological and mental sub-systems, predominantly on the unconscious level
Summary of further developments within first-order cybernetics	Contribution by key figures in first-order cybernetics provide insight into general systems theory, complexity and second-order cybernetics

3.4.1 Closed and open systems

Broadly, open systems refer to systems that interact with other systems and/or the environment, whereas closed systems refer to systems that have relatively little interaction with other systems or the outside environment. The distinction between open and closed systems is fluid at all times and depends on the definition of the system and its relation to other systems and its environment(s). As Spencer-Brown⁴⁰ (1971:57) shows, “the conception of the form lies in the desire to distinguish. Granted this desire, we cannot escape the form, although we can see it in any way we please”.

⁴⁰ Spencer-Brown’s publication of *Laws of Form* in 1971 made an impact on both Von Foerster and Luhmann’s articulation of second-order cybernetics and autopoiesis respectively (Von Foerster 2003; Luhmann 1995; Luhmann 1996).

Some of the confusion regarding the application of cybernetics to the study of social systems may have derived from the (mis)understanding and absence of clear distinction between “closed” and “isolated” systems. Whereas it is apparent in this conversation, as noted earlier, that individuals are composite unities of “operationally closed” systems, they are “informationally open”. The individual as a supra-system can be described as a composite unity of different systems, consisting of multiple sub-systems, of which some are open, closed, or both open and closed. Wiener (1954:28) offers some clarification as he states:

We, as human beings, are not isolated systems. We take in food, which generates energy, from the outside, and are, as a result, parts of that larger world which contains those sources of our vitality. But even more important is the fact that we take in information through our sense organs, and we act on information received.

Ashby (1957:3-4) elaborates further and inadvertently shows how the understanding of closed and open systems could have created confusion as he states:

Cybernetics envisages a set of possibilities much wider than the actual, and then asks why the particular Complex Adaptive Systems should conform to its usual particular restriction. In this discussion, questions of energy play almost no part – the energy is simply taken for granted. Even whether the system is closed to energy or open is often irrelevant; what is important is the extent to which the system is subject to determining and controlling factors. So no information of signal or determining factor may pass from part to part without its being recorded as a significant event. Cybernetics might, in fact, be defined as the study of systems that are open to energy but closed to information and control – systems that are “information-tight”.

It is important to point out here that because of the multitude of systems that are constantly being created on various levels (some tangible and some non-tangible), the openness or closedness of systems is generally decided by the perspective of the inquiry, so to speak, or more specifically by the *level of analysis* in any particular inquiry. System levels are articulated below, but at this point suffice it to say that whereas individuals and social groups may have been assumed as “open” systems in communication studies, for example, it becomes apparent in this conversation that “controlling” systems are operationally closed and informationally open to varying extents, as determined by the permeability of system boundaries. As Brown (1966:319) explains, closed systems have “closed information loops” because of the “control mechanism that has the capability to affect the processor so that the desired output is achieved”. When these characteristics are applied to thermostats, for example, this description appears logical. However, when it is considered that systems of different kinds possess similar properties and characteristics, in other words that information-tight systems exist within sub-systems of different kinds (biological and mental for example) within the individual as a meta-system, further explanation is required. Brown (1966) presents two illustrations of the basic distinctions between closed and open systems in Figures 3.3 and 3.4 below.

The distinction between open and closed systems is made here for conceptual purposes, bearing in mind that further qualifications, such as “operationally closed” or “informationally open”, apply to the discussion of particular systems in this conversation.

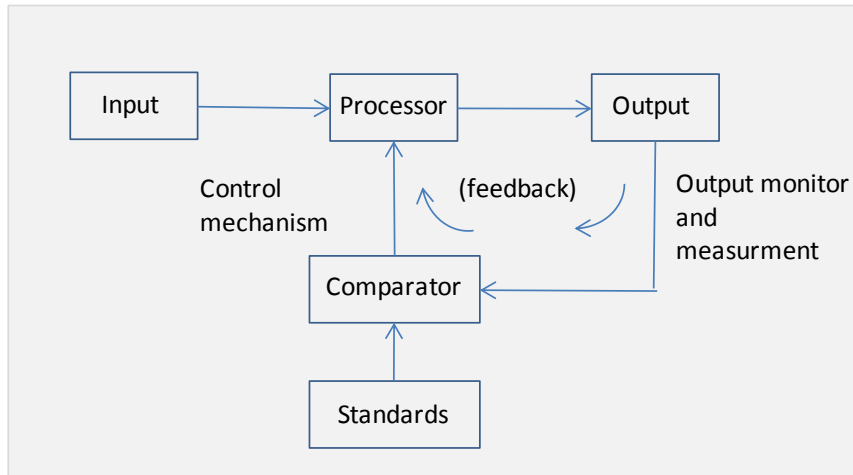


Figure 3.3: Closed system (Brown 1966:319)

Brown (1966:319) defines a closed system as “information-tight”, and explains as follows: “This means that the information loop is closed, and that the control mechanism has the capability to affect the processor so that the desired output is achieved”. He adds that: “We should note that information-tight systems may be open in terms of other flows, such as materials and energy, through the input-out-put processes”. This explanation gives insight into the distinction of informationally open but operationally closed systems. The individual as a system contains various biological and mental sub-systems, some of which are informationally open but operationally closed. For example, the individual’s action system (identified in the discussion of mental systems below) is open to information from the external environment, but in terms of the action(s) of the individual that are based on the choices made, from within operationally closed mental and (neuro)biological systems. Ashby⁴¹ (1957:11-12) explains that the property of closure “is a relation between the transformation and a particular set of operands; if either is altered the closure may alter”.

⁴¹ See Ashby (1957:11-12) for an illustration and further discussion of closure.

It will be noticed that the test for closure is made, not by reference to whatever may be the cause of the transformation but by reference to the details of the transformation itself. It can therefore be applied even when we know nothing of the cause responsible for the changes". Considering the "black box" referred to earlier, where the relations between the sub-systems within the individual and their environments are unknown, this description of system closure provides the insight that the "transformations" that occur within the individual may be observable only in terms of the behaviour of the individual, since the internal workings among operationally closed mental and biological systems cannot be observed. However, as Brown (1966:320) states, "even where one does not have complete knowledge or control over the internal workings of a system, it is often still possible to make many inferences about the interrelationships of the system elements". Given the complexity of individuals' interrelated biological and mental sub-systems, direct causal links between these sub-systems and individuals' behaviour is not possible, as cited from Krippendorff (1996) earlier. In his discussion of the black box, which comprises a full chapter in his seminal work *An Introduction to Cybernetics*, Ashby (1957) makes the following comment, used here in specific reference to the individual as a meta-system, summarises the challenge presented in the study of the black box where information processing occurs within the individual's biological and mental sub-systems:

There comes a stage, however, as the system becomes larger and larger, when the reception of all the information is impossible by reason of its sheer bulk. Either the recording channels cannot carry all the information, or the observer, presented with it all, is overwhelmed. When this occurs, what is he to do? The answer is clear: he must give up any ambition to know the whole system. His aim must be to achieve a partial knowledge that, though partial over the whole, is none the less complete within itself, and is sufficient for his ultimate practical purpose.

It is therefore accepted that the black box represents an operationally closed system, and considering the multiplex and unfathomable nature of the individual meta-system, this study aims to present such partial knowledge in order to achieve its objectives. Ashby (1957:107) captures the scientific stance adopted in this study when he states: "The point of view taken here is that science (as represented by the observer's discoveries) is not immediately concerned with discovering exactly what the system "really" is, but with co-ordinating the various observers' discoveries, each of which is only a portion, or an aspect of the whole truth".

Returning to the distinction between closed and open systems, Figure 3.4 below aims to illustrate such fundamental distinction. It is reiterated, again, that open and closed systems are co-created and therefore co-exist, and that the openness of any system is defined and determined by the articulation of its boundaries within a particular context and level of analysis within any particular inquiry.

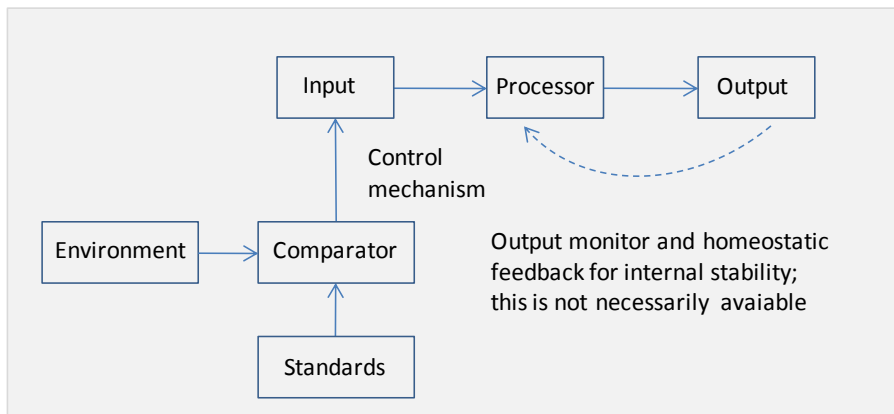


Figure 3.4: Open system (Brown 1966:320)

Brown (1966:320) shows that open systems do not have the information-tight control units that are characteristic of closed systems. As has been explained above, the assumption that open systems may be more open to analysis may be derived from the closed system being represented by an information-tight black box, which made its complete analysis impossible. This is, however, not the Complex Adaptive Systems, as Brown (1966:320), in reference to open systems, states: “Instead [of information-tight control units] the relations among the elements of the system, and between the system and its environment are often unknown, and the precise causes of system changes may be a mystery”. Considering further, as it becomes apparent later in this conversation, that individuals (and other social systems) create their environments (consciously as well as unconsciously) to varying degrees, it is clear that the study of open systems presents its own challenges. Brown (1966:320) says that open systems “are capable of bringing in resources by which they can modify their own internal flows, structures, and procedures” and thereby prevents the “entropic process” which he describes by saying: “if there are no counteracting forces, entropy (a measure of the unavailable energy in a system) increases toward a maximum, and the system elements become more randomized and less differentiated”. Entropy, as a key characteristic that draws a clear distinction between open and closed systems, is discussed next.

3.4.2 Entropy

Given that there are various interpretations of 'entropy', and that the concept is applied in various ways (Bailey 1997), it is necessary to be clear about how the term will be used here. Table 3.4 below presents definitions of entropy by some of the key figures in cybernetics.

Table 3.4: Definitions of entropy

SOURCE	DEFINITION
Wiener (1948:11)	Just as the amount of information in a system is a measure of its degree of organization, so the entropy of a system is a measure of its disorganization; and the one is simply the negative of the other.
Shannon and Weaver (1949:12-13)	In the physical sciences, the entropy associated with a situation is a measure of the degree of randomness or "shuffledness" if you will, in the situation; and the tendency of physical systems to become less and less organized is so basic that Eddington argues that it is primarily this tendency which gives time its arrows – which would reveal to us, for example, whether a movie of the physical world is being run forward or backward. ... That information be measured by entropy is, after all, natural when we remember that information, in communication theory, is associated with the amount of freedom of choice we have in constructing messages.
McCulloch (1965:145)	measuring chaos
Von Bertalanffy (1969:39)	in a closed system, a certain quantity, called entropy, must increase to a maximum, and eventually the process comes to a stop at a state of equilibrium. The second principle can be formulated in different ways, one being that entropy is a measure of probability, and so a closed system tends to a state of most probable distribution. ... So the tendency toward maximum entropy or the most probable distribution is the tendency to maximum disorder ...(continued)

SOURCE	DEFINITION
Gell-Mann (in Prigogine 1996:24)	Entropy and information are very closely related. In fact, entropy can be regarded as a measure of ignorance. When it is known only that a system is in a given macrostate, the entropy of the macrostate measures the degree of ignorance the microstate is in by counting the number of bits of additional information needed to specify it, with all the microstates treated as equally probable.
Luhmann (1995:49)	For an observer, a system is entropic if information about one element does not permit inferences about others. The system is entropic for itself if in the process of reproduction, thus in the replacement of elements that have passed away, any possible successive element is equally probable
Bailey (2001:678)	The basic definition of entropy is disorder or dissipation. ... Many scholars define entropy as “uncertainty”. Particularly in the communications, statistics, information of social-science literature. Others define entropy as “surprisal”

The central understanding of entropy derived from these definitions is 1) that entropy is a property of closed systems, and 2) that it has been associated with application in physical more than social sciences. In social sciences it has mainly been translated as “uncertainty”, or “equivocality in Weick’s theory of organising” (Littlejohn & Foss 2008:256; Krepps 1990:103). The use of the term “entropy” within General Systems Theory will be referred to below. What is of more relevance at this point is that closed systems exhibit a propensity towards maximum entropy or equilibrium. However, in many social studies⁴² the term “equilibrium” has been used to describe a state of balance or restoration, rather than “system death” (maximum entropy) or dissolution as per its original meaning (Bailey 1997:674)⁴³. Clear definition of equilibrium and its implications for the study of closed systems are presented below.

⁴² Bailey (2001) discusses the incorrect application(s) of the term “equilibrium” extensively. Also see Geyer’s (1995) reference to equilibrium as synonymous with homeostasis; Hernes and Bakken’s taxonomy that includes “equilibrium-based” theories; Harvey and Reed’s discussion on the applications of dissipative structures theory in social science (1994); Capra’s discussion on complexity theories (2005); and Stacey’s (1995) reference to equilibrium as “stability”.

⁴³ Bailey (1983) introduced Social Entropy Theory (SET), which strives for a statistical and verbal congruence.

3.4.3 Equilibrium

As it is clear that the original meaning of equilibrium represents no desirable system state for any system of any kind at any level of analysis, its meaning for the study of individuals as composite unities of systems can be considered briefly. Bearing in mind that equilibrium refers to a state of maximum entropy, and that the accomplishment of such a state implies the death of the system (Bailey 2001), it should be considered that the operationally closed sub-systems within the individual, in particular reference to the mental sub-systems, possess this tendency towards deterioration. With reference to McCulloch's (1965:145) description of entropy as "measuring chaos", entropy in the individual's operationally closed mental systems can be interpreted as *confusion*, for example, which can exist on conscious as well as unconscious levels. If information, in turn, is considered to be the reduction of uncertainty, or the dissolution of confusion, some of the concepts and premises of Information Theory, discussed below, provide further insight into the processing of information within the sub-systems within the individual as a composite unity of biological and mental systems.

3.4.4 Information Theory and its position in the study of individuals as composite unities of systems

Information Theory can be placed at the origin of modern communication studies, as Craig (1999:121) confirms: "... modern communication theory originated with the cybernetic tradition and the work of well-known cyberneticians, such as Shannon (1948), Wiener (1948), Von Neumann and Uring". Claude Shannon (1916–2001), the founder of Information Theory, became a key figure in the development of modern communication theory, following the publication of *The Mathematical Theory of Communication* by Shannon and Weaver (1949).



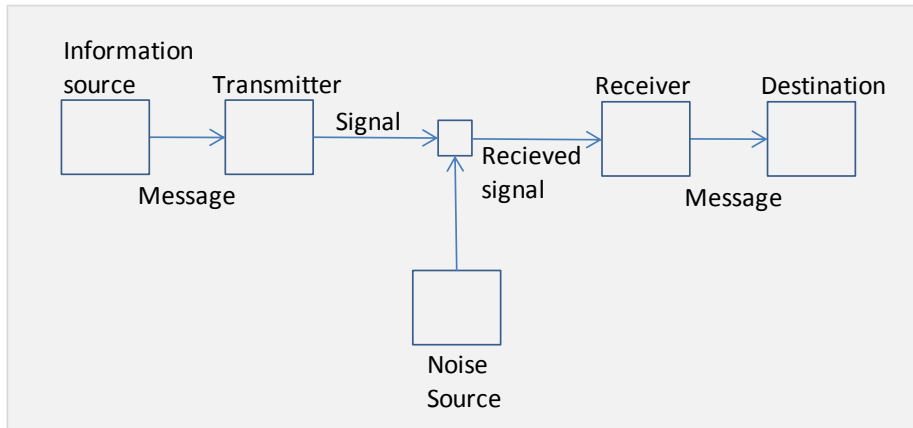


Figure 3.5: Schematic diagram of a general communication system (Shannon & Weaver 1949:34)

It is evident from Figure 3.5 that the diagram developed by Shannon (1948) had the purpose of finding the fundamental limits on signal processing operations such as compressing data and on reliably storing and communicating data.⁴⁴ As Griffin (2009:43) states:

The idea of communication as information processing was firmly established by Claude Shannon, a Bell Telephone Company research scientist who developed a mathematical theory of signal transmission. His goal was to get maximum line capacity with minimum distortion. Shannon showed little interest in the meaning of the message or its effect on the listener. His theory merely aimed at solving technical problems of high-fidelity transfer of sound.

Griffin (2009:44) comments that “its usefulness in describing face-to-face communication is questionable”, and while this statement is probably correct, Information Theory within the context of this conversation is applied to the understanding of the transfer of signals, in other words to non-linguistic communication. Therefore, the limitations of this schematic representation of a communication system in which linguistic (and therefore semantic) as well as feedback dimensions of communication are omitted are not deliberated here. The discussion of Information Theory developed by Shannon (1948) provides a different insight into communication for the purposes of this conversation. In reference to Dance’s (1970) paper on “the concept of communication”, a particular definition of communication is considered relevant to this discussion. Among 15 definitions of communication identified by Dance (1970:204-208), one particular definition is isolated here: Newcomb’s definition (1966) (in Dance 1966:207) states: “Every communication act is viewed as the transmission of information, consisting of discriminative stimuli, from a source to a receiver”. In view of the

⁴⁴ See Shannon (in Shannon & Weaver 1949:29-35) for conceptual definition of the five major parts in this diagram.

shift towards the application of first-order cybernetics to the study of the individuals on a micro-level of analysis, Information Theory offers significant insight.

With its emphasis on the transmission of signals as communication, Information Theory enables the estimation of unconscious communication that occurs among biological and mental sub-systems within the individual as a meta-system. It is apparent in contemporary sources, such as Tononi (2004), Johnson, Goodman and Rozell (2010), that the application of Information Theory has been extended to areas such as statistical inference, language processing, and neurobiology. Of particular relevance here is the acknowledgement that “neural processes underlying consciousness can influence or be influenced by neural processes that remain unconscious” (Tononi 2004:1). This means that the understanding of information processing within the various sub-systems within the individual as a meta-system must be articulated clearly. Terms such as “cognition”, “mental systems”, “cognitive systems”, “psychological systems”, and “computation” are used in reference to information processing within individuals on conscious and unconscious levels. In communication theory the study of persuasion, in particular, generally makes use of the concept “cognitive system”, although Luhmann (1995) uses the term “psychic system” to refer to a “conscious system” of thought. However, as will be illuminated in the discussion of second-order cybernetics, Maturana and Varela (1980) use the term “cognition” to refer to information processing between the biological and neurological systems differently, which may create some confusion in the distinction between “conscious”, “unconscious” and “subconscious”. When the individual experiences “cognitive dissonance”, as discussed by Festinger (1957), for example, it is clear that “unconscious” or “subconscious” communication between and among cognitive systems occurs. This is of fundamental importance to the understanding of persuasion, which is addressed in the next chapter. Therefore, to avoid confusion because of the lack of clarity in the distinction of “cognitive” and “psychic” systems at this stage, the unconscious processing of information is referred to in this conversation as “computation”. Given the confusion that may arise from the different usage of the terms “cognition” and “cognitive systems”, the conversation in this chapter uses “mental systems” in reference to computation that occurs unconsciously and the term “psychological systems” is used to refer to conscious information processing, or conscious thought.

Understanding the substance of the computation that occurs within individuals’ mental systems is of great significance for the following reasons:

- Individuals are not capable of processing all the information that enters their biological and mental (psychic) systems.

- Information that enters these systems is processed unconsciously and is integrated into various biological and mental (psychic) sub-systems.
- Such information creates the individual's knowledge, both consciously and unconsciously and drives individual's conscious thoughts and behaviour
- Understanding human behaviour and actions requires some insight into the unconscious systems in particular; computation cannot be accurately measured and therefore cannot be observed.

McCulloch (1965:146-148) provides the following evidence in support of these claims:

The transmission of signals over ordinary networks of communication always follows the law that deduction obeys, that there can be no more information in the output than there is in the input. The noise, and only the noise can increase. Therefore, if we are to deal with knowers that are computing machines, we can state this much about them. Each is a device, however complicated, which can only corrupt revelation. In order to preserve a correct sense of proportion, let me be technical for a moment. The human eye has about one hundred million photoreceptors, whereas it has but one million relays to carry that information to the brain. The whole body contributes another million channels. Thus we may figure approximately three million relays putting information into the nervous system simultaneously. ...Thus the over-all reduction in information from input to output of brain is a million to one if we neglect the eyes proper, and a hundred million to one if we include them. What becomes of all that information? ... let us be perfectly frank to admit that causality is superstition.

Von Foerster (2003:21) presents the following evidence related to computation that further supports these claims:

Ten neurons can be interconnected in precisely 1,267,650,500,228,229,401,703,205,376 different ways. This count excludes the various ways in which each particular neuron may react to its afferent stimuli. Considering this fact, it will be appreciated that today we do not yet possess a general theory of neural nets of even modest complexity.

As Brier (2005:357) observes, the information processing paradigm suggests that a deep level of symbol manipulation is the essential cause behind all cognition and language. While this suggestion is not undisputed, it is conceded here that the study of the individual as a system requires some understanding of the unconscious systems that drive the individual.

It is considered relevant to identify a key first-order cybernetic concept that relates to "feedback" in other communication models, and that is not generally encountered in cybernetic studies, namely "resonance". The study of the individual as a composite unity of biological and mental, or cognitive and/or psychic autopoietic systems requires the study of the interaction or communication among these biological and cognitive and/or psychic

systems, where resonance occurs. Musès⁴⁵ (1994:111) confirms that resonance is a pervasive notion in cybernetics as he states:

Indeed, the very core of physics – quantum theory – tells us that causation is triggered by probabilistically controlled resonances: hence the prominence of integers in quantum theory, denoting waves and half-waves respectively which in turn form the basis of reinforcement and interference. ... Since more and more we see that either excitatory or inhibitory causation is ultimately triggered by resonance, we see therefore that feedback must be ultimately resonantly controlled and directed – processes which lie at the very core of cybernetics, the science of steersmanship, or communication and control.

These interchanges cannot be observed and do not occur in linguistic form, but rather through other codes or signals, such as music, for example. Therefore, given the inability to observe and measure such interchanges that are the phenomena under investigation in fields such as neurobiology, the consideration of these micro levels of analysis is often omitted from social studies.

The section below provides a brief overview of other contributions from within first-order cybernetics that directed further theoretical developments in General Systems Theory, complexity as well as second-order cybernetics.

3.4.5 A summary of further developments within first-order cybernetics

It is considered relevant to the understanding of the development of the other cybernetic perspectives in this chapter to identify some of the founding members' contributions that are referred to in other sections of this conversation.

Warren McCulloch (1898–1969), a neurophysiologist, published *Embodiments of Mind* in 1965, in which he expressed his interest as the pursuit of understanding how the body and mind works. His work can be seen as a fundamental contribution to the study of cognition.

Ross Ashby (1903–1972), a psychiatrist, published *An Introduction to Cybernetics* in 1957, and developed the law of requisite variety, the principle of self-organising, and the law of regulating models (Heylighen 2004). These cybernetic concepts are central to the understanding of complexity itself.

During the same period Ilya Prigogine⁴⁶ (1917–2003), a Russian-born Belgian physical chemist, developed the theory of dissipative structures, which is central to the understanding

⁴⁵ See Musès for a comprehensive discussion of the science of resonance. Also see O'Donnell (2010) for a discussion on the impact of musical resonance and Einstein's history that provides insight into its impact on him personally.

of complex systems, and had great impact on the development of a new scientific ontology and the rejection of the epistemology of traditional science based on notions of “universal science, experimental control, determinism and linear logic of causal explanation” (Blaikie 2007:206). He explicated the concepts “non-equilibrium”, “uncertainty”, and “non-linearity”, “irreversibility”, and “thermodynamical self-organisation” in the study of complex systems (Heylighen 2004).

The publication of *Biology of Cognition* by Maturana in 1970 can be identified as one of the most profound influences on the development of second-order cybernetics. This was followed by the publication of *De maquinas y seres vivos* by Maturana, and Varela, two Chilean biologists, in 1973, which was translated into *Autopoiesis and cognition: The realization of the living* in 1980 (Bourgine & Stewart 2004). Their work in particular marked the paradigm shift in systems thinking, developed into the theory of social autopoiesis, often referred to in current texts as Luhmann’s autopoiesis.

Umpleby (2005b), a past president of the American Society of Cybernetics, summarises the events that followed the Macy conferences, which initiated the development of cybernetics as a meta-theoretical perspective as follows:

In subsequent years cybernetics influenced many academic fields – computer science, electrical engineering, artificial intelligence, robotics, management, family therapy, political science, sociology, biology, psychology, epistemology, music, etc. Cybernetics has been defined in many ways: as control and communication in animals, machines, and social systems; as a general theory of regulation; as the art of effective organization; as the art of constructing defensible metaphors, etc. The term “cybernetics” has been associated with many stimulating conferences, yet cybernetics has not thrived as an organized scientific field within American universities.

It is therefore not surprising that the diversity of worldviews within the various scientific domains led to formation of three different groups within the Cybernetic movement. According to Umpleby (2005b), the cybernetics of Alan Turing⁴⁷ and John von Neumann⁴⁸ became computer science and artificial intelligence. Norbet Wiener’s cybernetics became part of electrical engineering, a branch of cybernetics that includes control mechanisms from thermostats to automated assembly lines. Warren McCulloch’s cybernetics became second-order cybernetics, as defined by Von Foerster in 1974 (Umpleby 2005a). Umpleby (2005b) states that it was this last group that formed the American Society for Cybernetics in 1964,

⁴⁶ Prigogine won the Rumford Medal for his development of irreversible thermodynamics in 1976 and the Noble Prize for Chemistry in 1997 (Heylighen 2004).

⁴⁷ Alan Turing (1912–1954) was an English mathematician, logician and computer scientist who became well known as the inventor of the Turing test, which was used to measure the intelligence of machines.

⁴⁸ John von Neumann was a Hungarian-American mathematician who was the founding father in the domains of ergodic theory, game theory, quantum logic, axioms of quantum mechanics, the digital computer, cellular automata, and self-reproducing systems (Heylighen 2004).

the only one of the three groups that sought to promote cybernetics as an interdisciplinary field. A working group referred to as “sociocybernetics” was established by Geyer and others in the late 1990s (Umpleby 2005b). Van der Zouwen (1997:848) identifies Buckley (1967), well known for his publication of *Society as Complex Adaptive System*⁴⁹, as one of the founders of sociocybernetics. Sociocybernetics initially dealt with the application of first-order cybernetic principles to the analysis of social systems, although current texts show the integration of complexity and second-order cybernetics. Sociocybernetics⁵⁰ is not discussed separately in this conversation.

It is emphasised again that an in-depth literature study of these seminal works by the founders of cybernetics reveals that the development of the general systems, complex systems, and self-creating (second-order cybernetic) systems frameworks that are used within this conversation does not imply a chronological progression towards “new” theory. For example, the perceptions of mechanical systems as closed and of living systems as open have developed from different applications within specific theoretical environments. From the outset, it has always been apparent that systems are open and closed (Boulding 1956; Von Bertalanffy 1969). The existence of many kinds of systems on many levels of complexity has always been clearly stated, as pointed out throughout this conversation.

What has not always been as clear is that the study of the understanding of human behaviour, with specific reference to Communication as a discipline, has to involve the interplay or interaction among biological (tangible), cognitive (non-tangible), natural (tangible and non-tangible) and social (tangible and non-tangible) phenomena that determine human behaviour, when studied within a systems paradigm. When the different system paradigms, that is, General Systems Theory, complexity, and second-order cybernetics, along with the principles that feature jointly and distinctly between first-order and second-order cybernetics, are considered in totality, it presents a very complex theoretical framework for the study of human behaviour, as it becomes more evident in the progression of this conversation.

From a cybernetic meta-perspective, the distinction between first-order and second-order cybernetics provides more insight into the implications of the different systems theory paradigms for the study of communication. Umpleby (2005b) states that, at a conference in Switzerland in 1987, the members of the American Society of Cybernetics decided to focus their attention almost exclusively on second-order cybernetics. He illustrates the distinction

⁴⁹ See Buckley, Schwandt, and Goldstein (2008).

⁵⁰ See *Journal of Social Cybernetics* for contemporary applications. Communication Theory as a field has not been represented in these applications to any significant extent as yet.

between first-order and second-order cybernetics in Table 3.5 below: these differences were already imbedded in the different processes and principles that were evident in the mechanistic and organismic metaphors respectively, referred to below, which informed many of the perceptions of organisations and studies of organisations.⁵¹

Table 3.5: Definitions of First- and Second-Order Cybernetics

AUTHOR	FIRST-ORDER CYBERNETICS	SECOND-ORDER CYBERNETICS
Von Foerster	The cybernetics of observed systems	The cybernetics of observing systems
Pask	The purpose of a model	The purpose of a modeller
Varela	Controlled systems	Autonomous systems
Umpleby	Interaction among the variables in a system	Interaction between observer and observed
Umpleby	Theories of social systems	Theories of the interaction between ideas and society

Source: Umpleby (2005b)

While this table appears relatively simple, it has far-reaching implications for the study of communication, organising and organisations within the parameters of this study. By implication, individuals are observing meta-systems in themselves. In other words, individuals are composite unities of self-creating systems. That means that individuals are composite unities of self-creating biological, cognitive, and social systems. It also means that all the sub-systems that exist within these (at least) three major systems, all consist of various sub-systems that again consist of various sub-systems. For example, the body as a biological system consists of various sub-systems, such as the cardiovascular, respiratory, digestive, nervous, and neurological system, among several other biological systems.

The cognitive system, contained or nested within the biological system, consist of various cognitive sub-systems, such as the ego-system, the perceptual system, emotional system, value system, and several others, as identified within the different domains of cognitive

⁵¹ Cf. Morgan (1980), Morgan (1998), Seel (2003), McCourt (1997).

studies. At the same time individuals exist within a social system that, as is discussed later, directly, or indirectly, and to an undetermined extent, determine the behaviour of the other systems. Besides these different systems referred to, and not exhaustively by any means, these various systems not only co-create, co-function, and hence co-exist on different levels of complexity, but also on different levels of consciousness. For example, all sub-systems within the biological system co-create and co-function unconsciously, in other words automatically, to sustain themselves. In other words, individuals breathe in oxygen, and exhale unconsciously, so to speak. While the body takes in food consciously, the individual is not aware of the biological, digestive processes that occur and the chemical substances that are released as a result and the impact thereof on the functioning of the brain, particularly not during the biological phase of infancy, for example.

On the other hand, individuals may consciously take chemical substances to manipulate their cognitive processes, as is evident in the phenomenon of drug use and abuse. The point to be made here is that from these different systems frameworks it will become apparent, as the conversation continues, that the complexity of human behaviour created by self-creating systems, and the various environments that they continuously create, transcends linear, and to a large extent, rational explanation. Therefore, the power of cybernetics as meta-perspective is that it offers the *ultimate explanation*, from all the various disciplines, jointly and respectively, and based on the fundamental systems principle that everything relates to everything else – *that there is no direct causal or linear explanation for any phenomenon related to individual behaviour directly* – and to human cognition indirectly. While it is accepted that the reader may regard these arguments as *prima facie* evidence at this point in the conversation, the evidence presented in the progression of this conversation aims to substantiate these claims. In summary, the key considerations for the application of first-order cybernetics to the study of the individual as a meta-system are outlined below:

3.4.6 Key considerations for the application of first-order cybernetics in this study

The following key considerations for the application of first-order cybernetics for the purposes of this chapter are articulated as follows:

- The individual as a meta-system creates and contains various biological and mental sub-systems that are open and/or closed as determined by the definition of their boundaries
- The operationally closed systems within the individual exhibit a natural propensity towards equilibrium that drives the individual, consciously and unconsciously,

towards the attainment of negative entropy that prevents system death within and across a large diversity of systems that operate on different levels of abstraction

- The biological and mental systems within the individual as a meta-system communicate on conscious as well as unconscious levels that are not determinable through observation because of their unfathomable complexity.
- Very large systems cannot be studied in their entirety due their magnitude and complexity.

The section below considers the application of General Systems Theory to the study of the individual as a meta-system.

3.5 INDIVIDUALS ARE COMPOSITE UNITIES OF SYSTEMS: GENERAL SYSTEMS THEORY

The development of General Systems Theory has been widely accredited to the publication of *General Systems Theory* (1969) by Ludwig von Bertalanffy, a biologist – although the actual development of General Systems Theory predates this publication. Von Bertalanffy (1972:410) refers to his publication in the late 1920s in which he wrote:

Since the fundamental character of the living thing is its organization, the customary investigation of the single parts and processes cannot provide a complete explanation of the vital phenomena. This investigation gives us no information about the coordination of parts and processes. Thus the chief task of biology must be to discover the laws of biological systems (at all levels of organization). We believe that the attempts to find a foundation for theoretical biology point at a fundamental change in the world picture. This view, considered as a method of investigation, we shall call "organismic biology", and, as an attempt at an explanation, "the system theory of the organism".

It is therefore evident that the idea of studying the individual as a system is not novel either. Kast and Rosenzweig⁵² (1972:448) cite Chester Barnard, well known for his *Functions of the Executive* (1938), as already applying a systems framework in his study of organisations, as he stated:

A cooperative system is a complex of physical, biological, personal, and social components which are in a specific systematic relationship by reason of the cooperation of two or more persons for at least one definite end. Such a system is evidently a subordinate unit of larger systems from one point of view; and itself embraces subsidiary systems – physical, biological, etc. – from another point of view. One of the systems comprised within a cooperative system, the one which is implicit in the phrase 'cooperation of two or more persons' is called an organization.

⁵² Kast and Rosenzweig (1972:448) point out that the Russian physician, philosopher and economist Alexander Bogdanov, published *Tektology: Universal Organization and Science* in Russia between 1912 and 1917, which was translated and published in German in 1928. He used the term to describe a discipline that consisted of unifying all social, biological, and physical sciences, by considering them as systems of relationships and by seeking the organisational principles that underlie all systems, with reference to a systems approach towards the study of organisations in particular.

Boulding (1956:197–198) identifies the requirements among General Systems Theory scientists at the time as follows:

In recent years increasing need has been felt for a body of systematical constructs which will discuss the general relationships of the empirical world. This is the quest of General Systems Theory. It does not seek, of course, to establish a single, self-contained “general theory of practically everything” which will replace all the special theories of particular disciplines. Somewhere however between the specific that has no meaning and the general that has no content, there must be, for each purpose and at each level of abstraction, and optimum degree of generality. It is the contention of general Systems Theorists that this optimum degree of generality is not always reached by the particular sciences. Knowledge is not something which exists and grows in the abstract. It is a function of human organisms and of social organization. Knowledge, that is to say, is always what somebody knows: the most perfect transcript of knowledge in writing is not knowledge if nobody knows it.

It is apparent in these citations that General Systems Theory developed concurrently with the broader cybernetic meta-perspective, and it is a given among communication scholars that it has been applied extensively on the group, organisational, and social levels within communication studies,⁵³ psychology⁵⁴ and sociology⁵⁵ in particular. The purpose of this section of the conversation is therefore to focus on the concepts and applications of General Systems Theory that relate to the study of the *individual* in particular rather than to repeat general knowledge. Many such applications revolved around Talcott Parsons’s structural functionalism,⁵⁶ which is not applicable here. The section below provides a general overview of General Systems Theory.

3.5.1 An overview of General Systems Theory

Continuing from the developments within first-order cybernetics, the discussion of General Systems Theory commences with reference to Von Bertalanffy’s (1969:90) articulation of the application of first-order cybernetics and Information Theory, for the purposes of General Systems Theory at the time:

- 1) “Cybernetics, based on the principle of feedback or causal trains providing mechanisms for goal-seeking and self-controlling behaviour”.

⁵³ See Daniels, Spiker and Papa (1997); Krepps (1990); Neher (1997); Pace and Faules (1994); Newstrom and Davis (2002); Griffin (2009); Mesarovic, Screenath and Keene (2004) and Littlejohn and Foss (2008) for applications of General Systems Theory on group and social levels.

⁵⁴ See Carlston (1994); Carlston and Sparks (1994); Radvansky (1994), and Fiedler (1994).

⁵⁵ See Jaffee (2008) for applications of General Systems Theory in sociology.

⁵⁶ Parsons (1960) employed a model of social systems functions that was designed to demonstrate how all societies and social organisations carry out a necessary set of functions to ensure survival. Talcott Parsons (1902–79), who was well known for his action theory and application of structural functionalism, made several contributions to systems theory. Parsons used a model of social system functions that was designed to demonstrate how all society and social organisations have to fulfill certain functions in order to survive (Jaffee 2008:14). He delineated four functions in the now famous acronym AGIL; adaptation, goal attainment, integration and latency. See Jaffee (2008) for a detailed discussion of structural functionalism as applied in social studies.

- 2) "Information theory, introducing the concept of information as quantity measurable by expression isomorphic to negative entropy in physics, and developing the principles of its transmission".

The integration of these applications is evident in the discussion of General Systems Theory concepts below. Littlejohn and Foss (2008:41) refer to "basic systems theory" as a variation within the cybernetic tradition, and it refers to the application of General Systems Theory in its most elementary form, for the study of actual structures that can be observed and studied "from the outside". In other words, it enables the development and testing of system models for analytical and application purposes. It is worth noting that, contrary to the perception that General Systems Theory departs from the cybernetic description of phenomena in mathematical language, Von Bertalanffy (1969) also describes the system concepts below in mathematical formulations and models in General Systems Theory.⁵⁷

Within the framework of communication studies as field, Littlejohn (1999) characterises a system as consisting of four things:

- *Objects*, which are described as the parts, elements, or variables within the system. These may be physical, abstract or both, depending on the nature of the system.
- *Attributes*, which refer to the qualities or properties of the system and its objects.
- *Internal relationships* among its objects, which refer to the interaction or exchange between objects and are the crucial characteristic of a system.
- *Environment*, which explains how systems do not exist in a vacuum but are affected by their surroundings.

A system, then, is a set of things that can affect one another within an environment and that form a larger pattern that is different from any of the parts. Although Littlejohn (1999) did not elaborate further, this distinction between "parts" of the system and between the system(s) and the environment has profound implications not only for the identification of various systems, sub-systems and supra-systems, but also for the definition and description of boundaries themselves, as Luhmann (1995:29) explains:

A system's internal organization for making selective relations with the help of differentiated boundary mechanisms lead to systems' being indeterminable for one another and to the emergence of new systems (communication systems) to regulate this indeterminability. Given the abstract concept of boundary, the concept of the difference between the system and environment, one cannot decide whether the boundary belongs to the system or to the environment.

⁵⁷ See Von Bertalanffy (1969).

Geyer (1995:9) agrees, and states that:

The way system boundaries are drawn is observer dependent, time dependent and most importantly also problem dependent. In other words: two observers may be inclined to draw slightly different boundaries when talking about the same problem; and the same observer may draw the boundaries of a system to be studied differently tomorrow than today.

Geyer (1995:9) says that the understanding of system boundaries, and inadvertently system complexity, led to the so-called “black box approach”, referred to earlier, that “presupposes that the external observer can never really observe the system from within”, but can only determine system input and output, to a certain extent, to infer the working of the system, pertaining to the mindset, worldview, purpose, and so forth of the observer.

Without further elaboration at this point, the key concepts of General Systems Theory pertinent to this study are identified and described in Table 3.6 and discussed below.

Table 3.6: Summary of discussion

GENERAL SYSTEMS THEORY CONCEPT	BRIEF DESCRIPTION
Wholeness or holism	Emphasis that the system must be studied as a whole.
Hierarchical ordering	The relationships between systems and sub-systems and system elements are specified by rules
Openness or permeability	Social and living systems have openness or permeable boundaries as a characteristic that is central to the survival of a system insofar as it allows the flow and exchange of communication and material between system components and between systems
Feedback	The system responds to and adapts through positive and negative feedback (negative entropy)
Interdependence	The notion of interdependence or interrelatedness implies that the functioning of the components of a system, sub-systems or systems themselves, relies on other system components, sub-systems or systems in themselves ...(continued)

GENERAL SYSTEMS THEORY CONCEPT	BRIEF DESCRIPTION
Equifinality	Open systems can reach similar final states from differing initial conditions by a variety of paths as a result of the interdependent operation of system components
Requisite variety	The law of requisite variety to indicate that the internal workings of a system must be as diverse and complicated as the environment in which it is embedded
Sequence of events and life cycles	Systems repeat regular cycles of events that involve input-throughput-output processes
Steady states or homeostasis	Open systems may attain states where the system maintains homeostasis through the continuous flow of materials, energy and information
Multiple goal-seeking	All systems have multiple goals and that these goals are related to all other system components and characteristics

3.5.2 General Systems Theory concepts and their application to the study of the individual

As noted above, General Systems Theory concepts have been applied extensively to groups and social levels of analysis⁵⁸, and the discussion of these concepts is limited to their application to the individual as a meta-system.

3.5.2.1 Wholeness or holism

Von Bertalanffy (1969) places great emphasis on the study of the system as a whole: it was shown earlier, as cited from Krippendorff (1996) and McCulloch (1965), that because of the magnitude of the individual's meta-system, and correspondingly, the limitations imposed on observation, the study of the individual as a whole is not possible. The discussion of complex systems below confirms this assertion, since the development and creation of complex systems are unpredictable and non-linear. Therefore, another dimension of wholeness or

⁵⁸ The General Systems Theory concepts identified in this section are known to most communication scholars. See Von Bertalanffy (1969); Krepps (1990); Littlejohn and Foss (2008), and Griffin (2009).

holism, namely Wertheimer's *Gestalt Theory*⁵⁹ (1940) and its relation to "redundancy" is considered here.

In brief, *gestalt* can be translated from the German as "essence or shape of an entity's complete form". Gestalt psychology is a theory of mind and brain that posits that the operational principle of the brain is holistic, parallel, and analogue, with self-organising tendencies. The *gestalt effect* refers to the form-forming capability of our senses, particularly with regard to the visual recognition of figures and whole forms instead of just a collection of simple lines and curves (Fiske & Taylor 2010:3-4). The Aristotelian principle that the whole is greater than the sum of its parts is often used when explaining *gestalt theory*. The theoretical principles of *gestalt* psychology are: the principle of totality and the principle of psychophysical isomorphism (Fiske & Taylor 2010:93-94). While further explanation of *gestalt* concepts is not considered to be essential at this point, it is argued that "emergence" is as much a central concept in *gestalt theory* as it is within complexity theories.

Whereas *gestalt* principles illuminate visual representation, Shannon and Weaver's concept "redundancy" explains a similar phenomenon relating to the transmission of codes. Whether the message is coded into regular language, electronic signals, or some other verbal or non-verbal code, the problem of transmission is the same: to reconstruct the message accurately at the destination, as any television viewer with a snowy screen can testify (Shannon & Weaver 1949). This explains the role of redundancy in a message. Redundancy compensates for noise. Noise distorts, masks or replaces signals, redundancy allows for the receiver to correct or fill in missing or distorted data. Perhaps, because of poor reception, a sentence in radio news comes across as 'The Pres_____ o_ the U__ted Sta__s has ___clared...'. A person can make some sense out of this distorted sentence because of the predictability or redundancy in the language. Efficient transmission involves coding at a maximum rate that will not exceed channel capacity. It also means using a code with sufficient redundancy to compensate for the amount of noise present in the channel. Too much redundancy means transmission will be inefficient; too little means it will be inaccurate (Shannon & Weaver 1949).

Both *gestalt* principles and redundancy provide evidence of a (living) system's innate propensity towards wholeness or holism. Insofar as the study of the individual is concerned, this understanding is not unique. However, when the communication between biological and

⁵⁹ See Wertheimer (1944).

mental systems is considered, with specific reference to aspects such as perception and representation, this innate tendency of the individual to perceive a whole can be regarded as instrumental to the individual's creation of beliefs and attitudes, and ultimately behaviour, that has no substance. In other words, individuals' imagination may be related to different dimensions of wholeness or holism. As may be the Complex Adaptive Systems in NDSOs, for example, individuals see "the whole picture", which may not be feasible, for several reasons that can be related to social levels of analysis, as shown in the next chapter.

3.5.2.2 Hierarchical ordering

Within the individual as a meta-system, the hierarchical ordering among systems may be difficult to establish, although individuals' behaviour could be considered as evidence of such hierarchies. However, considering the non-linear relationships and unpredictability of complex systems in particular, direct causality remains difficult to prove or verify. The relationship(s) between biological and mental systems, for example, may be the cause of much debate ipso facto. The discussion of the mental systems within the individual below indicates that the individual ego-system is at the top of individuals' mental systems. In other words, the way that individuals consciously and unconsciously prioritise their actions, for example, relate to the ego-system, as the discussion will show. At the same time, the conscious hierarchical ordering of mental systems, again related to the ego-system(s) (which are operationally closed systems) is mainly created through social interaction, because these systems are informationally open. However, as many of the mental systems operate unconsciously, also through communication or interaction with biological systems, the individual is often unaware of, and hence unable to control, the dialectical relationships that are created and that exist among these multiple mental systems. Therefore, the individual may find it difficult to control these various sub-systems that compete, so to speak, for dominance of the action system, for example. This inner conflict between mental and biological systems that comprise the individual as a meta-system manifests itself as confusion, inner conflict, and so forth, for example. Such system states may be magnified by the individual's inability to access unconscious sources of dissonance or competition among sub-systems. Further explanation in the discussion of key considerations for the application of complexity theories later in this conversation provides more clarity.

3.5.2.3 Openness or permeability

Open and closed systems have been discussed earlier and therefore this section only considers further implications for the study of individuals as meta-systems that may not be explicit at this point of the conversation.

With specific reference to the mental sub-systems within the individual, the characteristic “informationally open” may require some further explanation. First it is reiterated that where unconscious system operation is concerned, the individual may not be aware of the existence of many of these mental systems and therefore neither of the degree of openness different mental systems have. Second, these degrees of openness or permeability are not fixed. In other words, the input to the informationally open system (information) has an impact on the operational closure of the system. For example, an individual may at any point be vehemently opposed to an idea such as direct selling but through information input, which may occur from various sources (consciously and unconsciously), such (overall) input may increase the permeability of the system and, at the same time, through the communication among various other mental systems, may alter the operation of the primary and secondary or other mental systems so that the individual’s attitudes and behaviour may be altered. The relative openness or permeability of mental systems is related to the characteristics of the other mental systems insofar as their manifestations in consciousness and behaviour are concerned. In the same way, systems that were initially open or permeable may become more closed through information input. For example, an individual who has been unsuccessful with direct selling may become more resistant to future attempts at recruitment.

3.5.2.4 Feedback

The communication between system components and between systems provides feedback from system components, other systems and/or the environment that provides information that indicates the need for inputs and outputs required to maintain a desired state of a system, referred to as homeostasis (Neher 1997:109). Feedback in systems occurs through input-throughput-output processes. An organisation, for example, receives input (such as information) from the environment (such as other organisations), processes it (translates it into consumer needs, for example), and produces output (new products, for example). Feedback can be described as negative entropy, since entropy represents uncertainty, and therefore information input reduces the uncertainty and counters system deterioration or demise.

Miller (2009:61) states that there are two types of input-throughput-output processes: *exchange* (apparent in both input and output activities), and *feedback* (which is critical to the throughput portion of organisational functioning). Two types of feedback are important to systems functioning. The first type is referred to as negative, corrective or deviation-reducing feedback, and helps to maintain steady system functioning. The second type of feedback is called positive, growth, or deviation-amplifying feedback that serves to change system functioning through growth and development (Miller 2009:61). Geyer (1995:8) says that positive feedback loops cause morphogenesis, rather than the homeostasis or change that is the motor behind change. Van der Zouwen (1997:851) describes “morphogenesis” as social systems’ ability to change their structure in the course of their functioning. Luhmann (1995:352) states that “Although morphogenesis creates new structures, it is also structural change. It builds on existing systems, for otherwise it would not be possible. This follows from the basic concept of autopoiesis”. Further reference to morphogenesis is made in the discussion of autopoiesis below.

When the concept of feedback is applied to the mental sub-systems within the individual as a meta-system, it becomes more complex, as feedback occurs through various stimuli on conscious as well as unconscious levels, with reference to the quantity of information the individual is capable of processing earlier. The discussion of “recursivity” later in this conversation may shed more light on this explanation.

3.5.2.5 Interdependence

Interdependence is probably the system characteristic individuals are most conscious of, insofar as their awareness of their “needs” and their dependence on other systems and other people are concerned. The interdependence of biological and mental sub-systems within the individual as a meta-system is however more complex and therefore not necessarily apparent to the individual. This may be attributed to the fact that much of the interdependence among mental systems originates from unconscious interaction among them that individuals may not be able to control because they are unaware of these different mental systems and how they interact with each other. The nature and extent of the interdependence between and among biological and mental systems become more apparent in the discussion of second-order cybernetics and autopoiesis. An example, such as individuals who cause themselves physical illness through stress, illustrates the kind of interdependence between biological and mental systems that individuals often fail to see.

3.5.2.6 Equifinality

Equifinality means that open systems can reach similar final states from differing initial conditions by a variety of paths as a result of the interdependent operation of system components (Miller 2009:63). This system property emphasises the dynamic nature of systems, because outcomes or final states in any system are not predetermined, but depend on the various interactions among system, components, sub-systems and other systems. The applications and implications of equifinality become more apparent in the discussion on individuals as self-creating systems, from a second-order cybernetic and autopoietic system. At his point it will suffice to point out that as a meta-system, every individual creates her or his reality to a certain degree that is relative to the environment she or he exists in or creates. The discussion of metaphysics in the conversation about second-order cybernetics provides further insight.

3.5.2.7 Requisite variety

Requisite variety deals with the relationships between systems and their environments. Ashby (1956) formulated the law of requisite variety to indicate that the internal workings of a system must be as diverse and complicated as the environment in which it is embedded. The more complex the environment, the more complex the organisation must become to deal with the complexity and to survive; or, as Morgan (1998:103) puts it, “any control system must be as varied and complex as the environment being controlled”. Morgan (1998:103) also refers to variety as “redundancy”, which he claims should always be built into the system where it is needed directly, rather than at a distance, as he explains: “This means that close attention must be paid to the boundary relations between organizational units and their environments to ensure that requisite variety always falls within the unit in question”. When applied to the individual as a meta-system, requisite variety as an indication of complexity obtains further significance and will be readdressed later in this conversation. George Kelly’s Personal Construct Theory (PCT) developed in the late 1950s, and its more contemporary application within Jesse Delia’s theory of Constructivism⁶⁰ provide further insight into the implications of requisite variety.

⁶⁰ See Littlejohn & Foss (2008:123-125).

3.5.2.8 Sequence of events and life cycles

Neher (1997:109) states that living organisms, like systems, go through stages, both as single systems and as populations of similar systems or organisations. Individual systems repeat regular cycles of events that involve input-throughput-output processes. For example, individuals go through daily cycles of activity as single systems (waking up, eating, going to work, etc.) and as part of other systems (organisations in which they work, interact with other individuals, function, etc.), that interact with other systems (other organisations) within larger systems (economic, political, educational, etc.) that all have other sequences of events and life cycles.

3.5.2.9 Steady state or homeostasis

The concept of steady state is closely related to negative entropy. In General Systems Theory it is held that open systems may attain states where the system remains in a steady state through the continuous flow of materials, energy and information (Kast & Rosenzweig 1972:450). While it is comprehensible that one of the primary functions of the biological system, or body, for example, is to maintain such a balanced state, other systems, such as cognitive systems, for example, often do not accomplish such balanced states, as is evident from the deviant behaviour of varying degrees in individuals, for example. This General Systems Theory concept, in particular, is re-assessed within the complexity and second-order cybernetic perspectives, where the focus shifts to imbalanced system states.

3.5.2.10 Multiple goal-seeking

In addition to these General Systems Theory concepts generally identified, Kast and Rosenzweig (1972:450) also distinguish biological and social systems by their apparent pursuit of multiple goals or purposes. Multiple goal-seeking is implicit in hierarchical ordering, although it can be argued that multiple goal-seeking is a far more conscious activity. As such, it can be identified as a system characteristic that drives much of conscious human behaviour, although this can be seen to be unconsciously driven when analysed at a deeper level. The discussions that relate to complexity and multiplexity further in this chapter provides further clarification relating to multiple goal-seeking.

Besides these general systems characteristics and properties that identified commonalities in many systems of different kinds – natural, mechanical, thermodynamic, social, and cognitive – in General Systems Theory, the section below aims to show that some

understanding of the complexity of systems already emerged from within General Systems Theory. The scientific experiments on and research into such complex systems that are discussed below provide more thorough understanding of the constitution, operation and functioning of complex systems, and also show that complexity shows similar behaviour, regardless of the type of system.

3.5.3 Complexity from General Systems Theory and Living Systems Theory perspectives

The brief description of Boulding's (1956) and Miller's (1955) taxonomies of system levels that follows below aims to show how the understanding of complexity developed from General Systems Theory. In his pioneering publication on General Systems Theory, Boulding (1956:200) suggested different approaches to the organisation of General Systems Theory as follows:

Two possible approaches to the organization of General Systems Theory suggest themselves, which are to be thought of as complementary rather than competitive, or at least as two roads each of which is worth exploring. The first approach is to look over the empirical universe and to pick out certain general phenomena which are found in many different disciplines, and to seek to build up general theoretical models relevant to these phenomena. The second approach is to arrange the empirical fields in a hierarchy of complexity of organization of their basic "individual" or unit of behaviour, and to try to develop a level of abstraction appropriate to each.

Wilby (2006:696) identifies four different frameworks below the surface structure of Boulding's "Skeleton". She holds that the first three frameworks address hierarchical descriptions of systems, while the last addresses the series of inter-relationships between system components and system levels. Wilby (2006:696) identifies and describes these frameworks as follows:

- The first is that the structure provides a simple explanation for the ever-increasing complexity of phenomena.
- The second is that the structure develops ever more complex levels of systems.
- The third is a structure of progressively more complex models for the description of what happens on those levels, and
- The fourth involves the increasingly complex image of the world that arises from the observer him- or herself and his or her perception of the inter-relationships between system components and system levels; in other words, according to Wilby (2006:696), within this framework the explanation of system phenomena and processes become "observer-dependent", which is the emphasis in second-order cybernetics.



It can therefore be deduced that this first framework of complexity within General Systems Theory created by Boulding (1956) already incorporated second-order cybernetics, where the emphasis shifts from observed to observing systems. Boulding⁶¹ (1956:200-207) developed the following classification system to describe the degrees of complexity in systems:

Table 3.7: Boulding's hierarchy of complexity

Boulding's hierarchy of complexity				
Level	Description	Characteristic	Example	Discipline
1	Structures and frameworks	Static, spatial pattern	Bridge, mountain crystal, atom	Descriptive elements of all disciplines
2	Clockworks	Predetermined motion	Clocks, machines, solar system	Physics, astronomy, engineering
3	Control mechanisms	Closed-loop control	Thermostat, homeostasis	Cybernetics
4	Open systems	Structurally self-maintaining	Frames, cells	Theory of metabolism
5	Genetic-societal systems	Society of cells, functional parts	Plants	Botany
6	Animals	Nervous system, self-awareness	Birds and beasts	Zoology
7	Humans	Self-consciousness, knowledge, language	Human beings	Biology, psychology
8	Socio-cultural systems	Roles, communication, values	Families, boy scouts, clubs	History, sociology, anthropology
9	Transcendental systems	Inescapable unknowables	God?	Philosophy, religion

Source: Mingers (1997:306)

According to Boulding (1956), each higher system level incorporates the systems below it. A further link to second-order cybernetics is observed within this framework. Boulding's identification of "absolutes and inescapable unknowables" corresponds with Von Foerster's "undecidables" (Von Foerster 2003:293), which he describes as questions for which there

⁶¹ See Boulding (1956) for a comprehensive discussion of these various levels.

are no specific answers, as he states: “[But] we are under no compulsion, not even under that of logic, when we decide on in principle undecidable questions. There is no external necessity that forces us to answer such questions one way or another. We are free!” This also clearly illustrates the constructivist epistemology that underlies second-order cybernetics with its roots in General Systems Theory.

Whereas Wilby (2006:699) concludes her discussion by saying that it is impossible to prove the existence of these levels of complexity in Boulding’s framework other than by intuition, Mingers (1997:304) argues that the re-conceptualisation of Boulding’s original hierarchy can rectify the confusion that exists regarding these levels of complexity, and says that the examples in each level of this hierarchy can also provide clear definition of the underlying structure (the definition of complexity) by using ideas from autopoietic theory. This re-conceptualisation will be addressed in the discussion of autopoiesis below. Miller’s LST provides further insight into the understanding of complexity that emerged within General Systems Theory.

Miller (1965) presented a similar effort towards the classification of system complexity, although he limited his classification to living systems. According to Miller,⁶² using the fundamentals of 1) space and time, 2) matter and energy, and 3) information as building blocks, three kinds of systems can be constructed: conceptual systems, concrete systems, and abstracted systems (Duncan 1972:514).

Conceptual systems are systems of thoughts: the units of such systems are commonly related by verbs. Computer programs are conceptual systems in which the various symbols are the units and the mathematical operators are the relationships between the units. Living Systems Theory is a conceptual system.

Concrete systems contain units which can be measured in space/time dimensions. All concrete systems exist in and are a part of the physical universe. The biological system that embodies the individual’s mental systems is considered to be concrete systems.

Abstract systems are composed of units and relationships chosen by an investigator to suit his convenience. Some units and relationships in a specific abstract system may be measured in space/time terms; however, others cannot be since they are abstractions

⁶² Miller’s *Toward a General Theory for the Behavioral Sciences*. *American Psychologist* 10 (1955) as well as his *Living Systems*, *Behavioral Science* Volumes 10 – 17 (1965 – 1972) were unobtainable.

created to serve the investigator's goals. The mental systems discussed later are examples of such systems.

Miller's taxonomy of living systems is presented in the Table 3.8 below. Miller suggests that the seven levels of living systems have similar salient characteristics and each can be described in terms of five major elements: structure, process, sub-systems, relationships and system processes⁶³ (Duncan 1972). Bailey (2007) discusses the congruence between Miller's and Luhmann's theories, which will be addressed in the discussion of autopoiesis below.

Table 3.8: Miller's seven levels of living systems

Miller's seven levels of living systems		
Level	Description	Characteristic
1	The cell	All of which have five major elements: structure process sub-systems relationships and system processes
2	The organ	
3	The organism	
4	The group	
5	The organisation	
6	The society	
7	The supranatural system	

Source: Compiled from Duncan (1972)

As the discussion below will show, contention exists regarding the study of social systems as autopoietic (Mingers 2002; Brocklesby & Mingers 2005; Fleischaker 1992; Maturana & Varela 1980; Maturana & Poerksen 2004), based on different perceptions and definitions of "living systems". The reason(s) for such contention may be more apparent in Miller's criteria for living systems presented in Table 3.9 below created from Duncan's (1972) discussion. While Miller (1955) initially created his taxonomy of living systems in reference to biological systems, he later restated the basic conceptual system and applied it to groups and organisations as well (Duncan 1972:514).

⁶³ See Duncan (1972).

Table 3.9: Miller's Criteria for Living Systems

Millers living system criteria	
1	It must be open and exchange commodities with its environments. Inputs become the raw materials for the system's metabolism and the outputs constitute the products and wastes of internal processes.
2	The system must be able to repair internal breakdown and thereby maintain certain levels of energy and order. Consequently, living systems are said to be negentropic, i.e. they tend to resist the entropy breakdown predicted by the second law of thermodynamics
3	The system will be complex beyond a certain minimum degree. Living systems have a level of organisation sufficient to maintain internal processes and thereby convert energy and resist entropy
4	To be a living system some program, template, or originating blueprint must be evidenced. In biological systems it is the DNA and genetic coding; in social systems, it takes the form of charters, constitutions, and similar documents
5	Living systems are largely made up of protoplasm. Although large organisations may have immense buildings, machines, and other artifacts, these are mere facilitators to the processes of the living system which functions within or around such artifacts
6	The system must contain a decider subsystem. The decider surveys the internal state of the system and the relationship between the system and its environment and makes decisions adjusting the interaction between subsystems and components. If a system is totally dependent on another system for its decision-making, then the former is not a system but a component of the latter
7	In order for a living system to survive, 19 critical subsystem processes must be carried out. A system totally independent of all others must be capable of performing each of the critical subsystem processes. However, in complex, interrelated, interdependent societies, systems become parasitically and symbiotically dependent on each other for subsystem processes
8	Living systems are integrated totalities with the characteristic of self-regulation, the capability of development and reproduction, and the trait of having purposes and goals.

Source: Compiled from Duncan (1972)

Constraints of space here do not allow for a detailed discussion of these criteria, and therefore further reference to these criteria is made in the discussion on second-order cybernetics.

It can be said, in summary, that the levels of complexity identified above not only illuminate levels of complexity but also focus the attention of levels of analysis, in other words macro levels and micro levels of different degrees. These levels of analysis are further dependent on the kinds of systems that are analysed – for example whether they are natural, mechanical, social or biological, and so forth – and also on the extent to which the influences

of these various systems on each other are considered jointly and separately. In conclusion to this section of the conversation, the key considerations related to General Systems Theory are identified below.

3.5.4 Key considerations for the study of individuals from a General Systems Theory perspective

The following are key considerations for the application of General Systems Theory for the purposes of this chapter:

- Living systems' sensory or perceptual propensity towards holism perpetuates similar tendencies in non-tangible and abstract mental systems, which establishes and continues to create recursivity within the individual as a meta-system.
- Systems hierarchies are evidenced through individuals' actions and behaviours.
- Systems' openness is determined by the dynamic permeability of their boundaries.
- Unconscious feedback within the individual as a meta-system is indeterminable due to the complexity, and therefore the non-linearity and unpredictability, of systems interchanges.
- The interdependence of biological and mental sub-systems within the individual as a meta-system transcends the boundaries of consciousness.
- The characteristic of equifinality means that individuals are capable of altering systems and systems outcomes through conscious intervention.
- The law of requisite variety implies that the level of complexity created within the individual's mental systems will manifest itself in the complexity the individual experiences in reality.
- Sequences of events and life cycles in mental systems can be viewed as recursive patterns that characterise individuals' behaviour.
- Steady states or homeostasis within individuals' mental systems will occur to the extent to which mental systems' conscious and unconscious systems co-operate as determined by the totality of the system's input-throughput-output processes.
- Systems' tendency towards multiple goal-seeking may cause conscious internal conflict that can probably be attributed to unconscious systems operations, relative to the levels of complexity that exist within different mental as well as biological sub-systems.

Against the background of first-order cybernetics and General Systems Theory, the theoretical background of complexity theories and the application of these theories to the study of individuals as composite unities of complex system are discussed below.

3.6 INDIVIDUALS ARE COMPOSITE UNITIES OF COMPLEX SYSTEMS: COMPLEXITY THEORIES

The introduction to complexity theories covered in this section may appear extensive but it is considered essential to provide a background for the theoretical discussion in this section because of the predominantly natural scientific origins of complexity theories. It is perhaps even more significant to draw a distinction between the terms “complicated” and “complex” at the outset of this discussion. Blaikie (2007:209) offers the following explanation of this distinction:

Some systems, such as large modern aircraft, consist of a huge number of components. If a complete description can be given of these components, the system is merely complicated. However, in complex systems, it is not possible to understand fully the interaction among the components, and the interaction between the system and its environment, by analysing its components. In addition, these relationships shift and change, often as the result of self-organization, leading to the emergence of novel features.

This inability to identify and/or analyse the relationships between and among an almost infinite number of variables within many kinds of systems on many different levels, operating simultaneously, makes it obvious that any discussion of complexity theory will necessarily be complicated, as complexity theories are in themselves complicated. Nowotny (2005:15) confirms the confusion that often accompanies encounters with complexity theories as she states:

Complexity [here] conveys the sense of going beyond what mathematicians can handle and, hence, understand. In everyday life the notion of being unable to process all the relevant information, to observe and to know what is going on, enters also very quickly. Complexity points to something which is just beyond our ability to understand and control, yet presume it is densely packed, ordered and structured in some way that we fail to comprehend as yet.

Urry (2005a:3) further clarifies the very nature of complex systems analysis in this way:

Complex systems analyses investigate the very many systems that have the ability to adapt and co-evolve as they organize through time. Such complex social interactions are likened to walking through a maze whose walls rearrange themselves as one walks through; new footsteps have to be taken in order to adjust to the walls of the maze that are adapting to each movement made through the maze. Complexity investigates emergent, dynamic and self-organizing systems that interact in ways that heavily influence the probabilities of later events. Systems are irreducible to elementary laws or simple processes.

Luhmann (1995:24) provides a more comprehensive description of complexity as follows:

... we will call an interconnected collection of element “complex” when, because of immanent constraints in the elements’ connective capacity, it is no longer possible at any moment to connect every element with every other element. The concept of “immanent constraint” refers to the internal complexity of the elements, which is not at the system’s disposal, yet which makes possible their “capacity for unity.” In this respect, complexity is a self-conditioning state of affairs: the fact that elements must be constituted as complex in order to function as a unity for higher levels of system formation limits their connective capacity and thus reduces complexity as an unavoidable condition on every higher level of system formation.

Luhmann’s reference to the reduction of complexity may appear confusing, as the principle of requisite variety implies that only complexity can deal with complexity. However, as Nowotny (2005:19) explains, according to Luhmann “a system is described by the selectivity to its environment. It builds its own structural complexity”. This view draws the distinction between the observed system and the observing system view that separates first-order and second-order cybernetics referred to earlier. The increase and reduction of complexity is discussed in more detail from a second-order cybernetic perspective below.

Burnes (2005:74) points out that “The term ‘complexity theories’ serves as an umbrella term for a number of theories, ideas and research programmes that are derived from scientific disciplines such as meteorology, biology, physics, chemistry and mathematics”. The observation made here is that complexity theories create a language that often prohibits understanding and hence their application in social studies. Burnes (2005:77) shares this perception as he states:

One of the first things that strikes the reader when approaching complexity theories for the first time is the plethora of strange and exotic terms, such as autocatalytic change, fitness landscapes, non-linearity, bifurcation, Feigenbaum constants, Mandelbrot sets, strange attractors and many, many more. This is the language of mathematics, and very exotic mathematics at that. Without mathematics, there would be no complexity theories.

The problems related to the interpretation of mathematics as a language have been noted in the beginning of this conversation and are acknowledged here again. Some of the distinguishing features of complexity theories in comparison to first-order cybernetics and General Systems Theory may shed some more light.

At first glance it can be noted that complexity theories focus on predominantly open systems, non-linear relationships, conditions that are far from equilibrium and particularly the concept “emergence” that is central to most complexity theories. However, understanding the notion of “operationally closed” and “informationally open” applies here as well. It becomes evident in this discussion that “emergence” is a central concept in complexity theories, which is

therefore clearly articulated at this point. Emergence refers to the manifestation of some kind of order through a process of self-organisation (Burnes 2005:80). Rather than being planned or controlled, the agents in the system interact in apparently random ways.

From all these interactions patterns emerge which inform the behaviour of the agents within the system and the behaviour of the system itself. This “order” refers to the appearance of certain structures, through “order-generating” rules. Geyer (1995:25) emphasises that emergence is a bottom-up, rather than a top-down, process that is not controlled centrally. He states that “it is a matter of local units, acting according to local laws, producing new levels of complexity by interacting”, and adds that complex behaviour does not need to have complex roots. Burnes (2005:80) refers to the example of a flock of birds that was used by Reynolds (1987) to illustrate the principle of self-organising when he attributed the same three simple rules of interaction to each bird in a flock:

1. Keep a minimum distance from other birds.
2. Fly at the same speed as other birds.
3. Move towards the centre of the flock.

Because each individual bird behaves according to its own local rules of interaction, a self-organised, coherent pattern emerges from the entire system (Burnes 2005:80). Similar forms of self-organisation can be seen in schools of fish or termite hills, for example. Capra (2005:37) says that emergence is “one of the most important concepts of the new understanding of life”, and that “it has been recognized as the dynamic origin of development, learning and evolution”. “Emergence” is described and applied differently within different theoretical frameworks, but it has similar meaning in general, as will become more apparent in this conversation. At this point, suffice it to say that emergence confirms the prominence of structure, which remains a central feature in both complexity theory and second-order cybernetics. The complexity concepts that are relevant to the study of individuals in particular are identified from within three complexity theories in particular, namely, Chaos Theory, Complex Adaptive Systems and Dissipative Structures Theory. There is a fine distinction between these theories, the technical dimensions of which are more applicable to the natural than to the social sciences. The reason for these technical differences is related to their establishment and theoretical development in different kinds of natural systems, such as thermodynamic and weather systems. While it can be assumed that the types of complex systems that exist within the individual as a self-creating meta-systems are likely exhibit similar technical differences, these have not been explicated in existing studies consulted in the literature review. It does not benefit the purposes of this

conversation to extrapolate these distinctions related to natural systems in detail, as the purpose here is to indicate general properties of some types of complex systems that can provide further insight into the formation of concrete and abstract systems within the individual as a composite unity of complex systems that drive self-creating systems.

Complex systems are therefore considered here to be sub-systems within autopoietic systems. Table 3.10 below identifies some of the key characteristics of chaotic systems, Complex Adaptive Systems, and dissipative structures that can guide the discussion of the initial conditions in the individual as a self-creating meta-system in the following section. It has to be pointed out here that, within social studies, these complexity theories have been applied predominantly to the study of *organisations* and not to the study of complex systems within the individual as a self-creating meta-system.

Whereas Chaos Theory explains a system state, Complex Adaptive Systems and Dissipative Structures Theory provide insight into the developments within systems that *may*, but do not necessarily, result in chaotic states. It was shown earlier, in reference to the taxonomies of complexity within General Systems Theory, that living systems become increasingly complex, which means that they may experience chaotic states at different levels and at different times, due to complex adaptive systems or dissipative structures that are continuously created. From this understanding, some of the properties and characteristics of complex systems are presented in Table 3.10 below. A discussion of each theory follows.

Table 3.10: A descriptive summary of complexity theories identified and discussed in this chapter

THEORY	BRIEF DESCRIPTION	MAIN TENETS
Chaos Theory	Chaos represents a state of total disorder and a high level of entropy where the behaviour of the agents and the survival of the system appear uncertain	<p>Order is hidden within chaos (US-based view)</p> <p>Order emerges from chaos (European-based view)</p> <p>Sensitivity to the initial conditions of the system is a central characteristic</p> <p>Almost insignificant aspects of the initial conditions of the system can produce massive outcomes (deterministic chaos) known as the butterfly effect</p>
Complex Adaptive Systems Theory	A dynamic network of many “agents” constantly acting and reacting in parallel to other agents involving a large number of “decisions” made by each at every moment.	<p>Order is emergent</p> <p>History is irreversible</p> <p>High sensitivity to initial conditions of the system</p> <p>Order is emergent</p> <p>Future is often unpredictable</p> <p>Direction of recursivity</p> <p>Constant rearrangement through self-organisation</p> <p>Many levels of organisation</p> <p>Constant states of equilibrium</p> <p>Constant increase of complexity through emergence and morphogenesis</p> <p>Language can be viewed as Complex Adaptive Systems</p>
Dissipative Structures Theory	Emphasises the close interplay between structure, on the one hand, and flow and change (or dissipation). on the other	<p>Dissipative Structures Theory is grounded in the dynamics of deterministic chaos: the greater the complexity the higher the degree of non-linearity in the mathematical equations describing it</p> <p>The irreversibility of processes means that the system never returns to its original state</p> <p>Sensitivity to initial conditions</p> <p>Order is emergent</p> <p>Dissipative structures evolve through mechanisms of assisted bifurcations</p> <p>systems on the edge of chaos are viewed as “interacting dissipatively with their environment so constituting ‘islands of order’ within an increasingly turbulent sea of disorder”</p> <p>Social systems are a special class of naturally constituted dissipative systems</p>

3.6.1 Chaos Theory

It is widely held that complexity theory had its origins in Chaos Theory (Blaikie 2007:207). Related to the early beginnings of first-order cybernetics, discussed earlier, chaos theory began as a field of physics and mathematics dealing with the structures of turbulence and the self-similar forms of fractal geometry. Chaos Theory was discovered through the use of simulation when Edward Lorenz, a meteorologist, simulated weather patterns on a computer (Thiéart & Forgues 1995; Burnes 2005). Geyer (1995:11) shows that simulation was originally a technique of first-order cybernetics that has been widely used since and is also used in second-order cybernetics at present to study the phenomenon of emergence, as well as in other social sciences and disciplines.

Hayles (1991) identified two dominating views of chaos:

- 1) order is hidden within chaos (US-based), and
- 2) order emerges from chaos (European-based).

Although complexity may have emerged from chaos, there are disagreements as to how the two are now related (Blaikie 2007:207). Byrne (2005:98) notes that Hayles (1991) denies the primacy of “scientific” chaos and argues that the theme of chaos is everywhere in the episteme. Byrne (2005:98) also shows that the application of chaos theory, as a complexity theory, is not just a matter of importing natural scientific ideas to social sciences, as he states:

Rather, it involves thinking about the social world and its intersections with the natural world as involving dynamic open systems with emergent properties that have the potential for qualitative transformation, and examining our traditional tools of social research with this perspective informing that examination.

It is therefore essential to continue this collaboration among disciplines and to utilise the understanding of chaotic systems in the study of individuals as composite unities of biological and mental systems that are constituted by complex systems, some of which are chaotic systems. In this regard, Chaos Theory is said to exhibit sensitivity towards the initial conditions of a system: small changes in these conditions can produce massive outcomes, known as deterministic chaos. Chaos is seen to be totally determined by non-linear laws that amplify changes in the initial conditions of a system into unpredictable outcomes. This is captured in the classic metaphor of the butterfly that developed from the computer simulation by Lorenz referred to earlier, as it resembled a butterfly. The persistent reference to this effect throughout discussions of complexity theory in various sources consulted means that a more detailed discussion here is warranted.

3.6.1.1 The butterfly effect

Known as the butterfly effect, the analogy of a butterfly flapping its wings and causing a major weather disturbance on the other side of the globe is used to explain how relatively small impacts in the initial conditions of a system can have far-reaching outcomes. Urry (2005a:4) describes this effect as follows:

Chaos theory is based upon iterating a relatively simple mathematical algorithm. Following a deterministic set of rules, unpredictable yet patterned results can be generated, with small causes in Complex Adaptive Systems producing large effects and vice versa. The classic butterfly effect, accidentally discovered by Lorenz in 1961, demonstrated that miniscule changes at one location can theoretically produce, if modelled by three coupled non-linear equations, very large weather effects very far away in time and/or space from the original site of the hypothetical flapping of wings. Relationships between variables can be non-linear with abrupt switches occurring, so the same 'cause' can, in specific circumstances, produce different effects.

Blaikie (2007:407) shows that according to Cilliers (1998) complexity theory is less concerned with initial conditions, but focuses rather on the huge number of interacting components and unpredictable outcomes. It will be shown in the discussion of the development of the initial conditions of human individuals, with reference to the development of cognition and cognitive systems, however, that small changes in the initial stages of cognitive development can have a large impact on future cognitive operations. It is considered relevant at this point to show that Chaos Theory is linked to quantum physics and how it provides further explanation of the implications of non-linear dynamics and ultimately the unpredictability of human cognitive processes and hence human behaviour. The explanation of Heisenberg's uncertainty principle in the field of quantum physics is explained in brief below.

3.6.1.2 Heisenberg's Uncertainty Principle

Another key element in Chaos Theory is its relation to quantum physics and its significance for the understanding of second-order cybernetics. One of the fundamental concepts of Quantum Physics is Heisenberg's Uncertainty Principle. As Randhawa (2006) explains, this principle means that the process of observing influences what is being observed. The observer is necessary to make the observation but during observation the phenomenon being observed is brought from a state or wave of probability to a particle of experience. This means that for a physicist to comprehend the data, he or she must focus on the observer rather than the data (Randhawa 2006). He adds that every human being has the ability to observe and change subatomic reality.

It can therefore be seen that the application of Chaos Theory goes beyond the study of organisations as entities, but aids in the study of the individual as a co-creating entity within the process of organising, and as an unpredictable unity of various systems, some of which are necessarily chaotic insofar as they display sensitivity to initial conditions, discreteness of change, attraction to specific configurations, structural invariance at different scales and irreversibility, which Thiétart and Forgues (1995:19) identify as properties of chaotic systems. They use these characteristics to develop six propositions about organisations that they apply to the study of change in organisations. It is reiterated that as this is not the focus of this investigation, the application of chaotic properties and principles is limited to the study of chaotic systems within the individual as unit of analysis in the study of NDSOs.

Harvey and Reed (1994:372) say that the new science of deterministic chaos is what developed a theory of dissipative systems that supplanted the conservative, homeostatic reading of social systems that emanated from Parsons's structural functionalism, as they state: "Grounded in an ecumenical naturalism and materialist interpretation of social systems, dissipative systems theory promises to realize Bertalanffy's (1968) dream of a general science of systems". The applications and implications of Complex Adaptive Systems Theory are assessed below.

3.6.2 Complex Adaptive Systems Theory

Complex Adaptive Systems Theory can be distinguished from Chaos Theory and Dissipative Structures Theory in that it aims to understand the behaviour of the individual elements of systems and populations, rather than whole systems and populations (Burnes 2005:78). Complex Adaptive Systems obtain their name from their characteristics and operation. Holland (1992) offers the following definition of complex adaptive systems

A Complex Adaptive System (CAS) is a dynamic network of many agents (which may represent cells, species, individuals, firms, nations) acting in parallel, constantly acting and reacting to what other agents are doing. The control of complex adaptive systems tends to be highly dispersed and decentralized. If there is to be any coherent behavior in the system, it has to arise from competition and cooperation among the agents themselves. The overall behaviour of the system is the result of a huge number of decisions made every moment by many individual agents.

Holland (1992) shows that this overall behaviour or evolution of Complex Adaptive Systems can be attributed to three key principles:

- 1) order is emergent as opposed to predetermined,
- 2) the system's history is irreversible, and
- 3) the system's future is often unpredictable

The basic building blocks of Complex Adaptive Systems are agents. Agents scan their environment and develop schema representing interpretive and action rules. The schema is subject to change and evolution. Burnes (2005:79) say that agents in Complex Adaptive Systems behave according to their own principles or rules of local interaction, and that each agent adjusts his or her behaviour to that of other agents. It is therefore understandable that Complex Adaptive Systems Theory has been widely applied in the study of organisations and change in organisations. The application of Complex Adaptive Systems Theory becomes even more significant, however, if the focus shifts from the organisation to individual human beings as complex adaptive systems.

Burnes (2005:79) points out that the main focus in the study of complex adaptive systems has been non-linear biological systems, as all living systems are considered to be complex adaptive systems: "Complex adaptive systems are self-organizing in that there is no overall blueprint or external determinant of how the system develops; instead, the pattern of behaviour of the system evolves or emerges from the local interaction of the agents within it." This description of complex adaptive systems also applies to human individuals, as each individual makes choices that determine how his or her system develops. Individuals make choices, consciously as well as unconsciously, because complex adaptive systems are created in biological, cognitive and/or psychic, as well as all other systems, on various levels.

Geyer (1995) does not distinguish complexity theories from second-order cybernetics, but he provides a description of complex adaptive systems and defines some of their key features that do relate to the study of organisations such as NDSOs. Geyer (1995:26) agrees that complex adaptive systems are to be found everywhere, such as brains, immune systems, ecologies, developing embryos, and also socio-cultural systems like political parties, economic systems, and even scientific communities.

It must be reiterated that these characteristics of complex adaptive systems have been widely applied to the study of organisations and social systems, with particular emphasis on change, and that the continuous reference to "agents" may cause the reader to consider individual human beings primarily as such agents. However, it is of the essence to note here that Maturana and Varela (1980) show that the "agents" and "elements" are not just individual human agents that function in the organisation, but are also the different cognitive and psychic systems that direct and orient the behaviour of individuals on the unconscious level. The unpredictability of human emotions, for example, illustrates the presence of

complex adaptive systems within individuals as composite unities of biological and cognitive self-creating systems, with several complex sub-systems within. Broadly speaking, Complex Adaptive Systems Theory has been applied to organisations rather than the individual as unit of analysis.⁶⁴

The key consideration in Complex Adaptive Systems, which is also identified in the discussion of Chaos Theory and dissipative structures theory, is the sensitivity of these systems to initial conditions. Compared to Chaos Theory and dissipative structures theory, Complex Adaptive Systems Theory can be applied to study the individual as a unit of analysis, even though the sources consulted have not conducted analyses on the biological, cognitive and/or psychic system levels. The study of complex adaptive systems therefore has focused more on the social level, where individuals interact and adapt their behaviour through linguistic interchanges, in other words, through interaction. For the purposes of this conversation, language in this form is considered as media through which individuals construct meaning and constitute a shared reality. Beckner, Blythe, Bybee, Christiansen, Croft, Ellis, Holland, Ke, Larsen-Freeman and Schoenemann (2009) prepared a position paper in which they discuss language as complex adaptive systems. A brief overview of their views is presented below.

3.6.2.1 Language as Complex Adaptive System

It has been stated earlier, the view of language as a system is not new, as it has been studied as such within structuralism and post-structuralism. A broader understanding complexity theory and complex adaptive systems requires the understanding of how individuals as composite unities of complex adaptive systems construct meaning *esse est percipi* (the philosophical position that nothing exists independently of its perception by a mind except minds themselves). In other words, the consideration of language as complex adaptive systems provides insight into the complex sub-systems within the biological and cognitive and/or psychic autopoietic systems that create increasingly complex structures through morphogenesis, and that plays a fundamental role in the individual's self-creation, not only on different system levels, but also within different social systems, at different levels. Beckner et al (2009:2) claim that viewing language as a complex adaptive system has the

⁶⁴ See for example, Dooley and Van de Ven (1999); Morel and Ramanujam (1999); Anderson (1999); Boisot and Child (1999); Frank and Fahrback (1999); Burnes (2005); Thiétart and Forgues (1995); Stacey (1995); Bierly, Kessler and Christensen (2000); Black and Edwards (2000); Letiche (2000); Lichtenstein (2000); Black (2000); Larsen-Freeman and Cameron (2008) and Chia (1998).

advantage of providing a unified account of seemingly unrelated linguistic phenomena, such as:

...variation at all levels of linguistic organization; the probabilistic nature of linguistic behavior; continuous change within agents and across specific communities; the emergence of grammatical regularities from the interaction of agents in language use; and stagelike transitions due to underlying nonlinear processes.

Beckner et al (2009) depart from the assumption that language has a fundamentally social function, and state that the processes of human interaction along with domain-general cognitive processes shape the structure and knowledge of language. They say that these processes are not independent of each other but part of the same complex adaptive system. While it has already been explicated in structuralism, post-structuralism, and hermeneutics, among various other studies of language, Beckner et al (2009) show that research in cognitive sciences, in particular, has demonstrated that patterns of use strongly affect how language is acquired, is used and changes. The following key features of language as complex adaptive systems are identified:

- a) The system consists of multiple agents: the speakers interacting with one another
- b) The system is adaptive – speakers' behaviour is based on their past interactions, and current and past interactions together feed forward into future behaviour
- c) A speaker's behaviour is the consequence of competing factors ranging from perceptual constraints to social motivations
- d) The structures of language emerge from interrelated patterns of experience, social interaction, and cognitive mechanisms

These features correspond with the view that language constructs individuals' reality insofar as they co-create meaning and articulate their consciousness, or rather their perception of their consciousness. Von Foerster (2003:297) confirms that language in its function is constructive, as the individual creates his or her own account of his or her experiences. Therefore, every individual's language is unique to the extent that specific meaning is created when a denotative term obtains connotation through the individual's experience. When an individual uses a term such as "delicious" to describe a beverage, for example, the understanding of that term is an integration of both sensory and linguistic (perhaps even social) elements within the specific systems of that particular individual. While other individuals may have a similar perception of the same beverage, for example, the understanding of "delicious" will be similar, but never exactly the same.

Cornish, Tamariz and Kirby⁶⁵ (2009) view language as a product of both biological and cultural evolution, and hold that the origins of key structural patterns in language can be found in the process of cultural transmission between learners. The discussion of language will continue from within the Sociocultural Tradition in particular in the next chapter. Without further elaboration at this point, the following characteristics of language as a complex adaptive system identified by Beckner et al (2009) are noted and listed:

- Distributed control and collective emergence
- Intrinsic diversity
- Perpetual dynamics
- Adaptation through amplifications and competition factors
- Non-linearity and phase transitions
- Sensitivity to and dependence on network structure
- Change is local

As is evident, these characteristics correspond with the general characteristics of complex adaptive systems. It is further noted that at deeper levels of system analysis, studies relating to the underlying neuro-biological processes through which language is learned and constructed provide further insight.⁶⁶ The following section describes Dissipative Structures Theory within the complexity theory framework.

3.6.3 Dissipative Structures Theory

Prigogine's theory of dissipative structures led to pioneering research in self-organising systems, as well as philosophical enquiries into the formation of complexity on biological entities and the quest for a creative and irreversible role of time in the natural sciences (Prigogine 1996). As Capra (2005:37) explains, the most intriguing factor for Prigogine is that living organisms are able to maintain their life processes under conditions of non-equilibrium.⁶⁷ His recognition of the link between "far from equilibrium" and "non-linearity" culminated in his theory of dissipative structures, formulated in the language of non-linear dynamics (Capra 2005:37). A living organism is an open system that maintains itself in a

⁶⁵ See the report by Cornish, Tamariz and Kirby (2009) on their experiments on language as Complex Adaptive Systems, and the origins of adaptive structures.

⁶⁶ See Marantz's (2005) discussion of generative linguistics within the cognitive neuroscience of language; Graben, Jurish, Saddy and Frisch (2004) on language processing by dynamical systems; and Bergen's interview with Luc Steels on a whole system approach to language (2008).

⁶⁷ It has to be noted that all references to "equilibrium", "far from equilibrium", "non-equilibrium" or "dynamic equilibrium" considers equilibrium as referring to "a state of balance". While this error has been pointed out earlier, the sources consulted generally use this interpretation.

state far from equilibrium, and yet is stable. The same overall structure is maintained in spite of an ongoing flow and change of components. Prigogine (1996:66) called the open systems described by his theory “dissipative structures” to emphasise this close interplay between structure, on the one hand, and flow and change (or dissipation), on the other. The further a dissipative structure is from equilibrium, the greater is its complexity and the higher is the degree of non-linearity in the mathematical equations describing it. Considering its origins in the study of thermodynamics and the emphasis on mathematical equations, dissipative structures theory may appear challenging insofar as its application to social systems is concerned.

Radzicki (1990:63) explains that social systems can be characterised as both thermodynamically open and dissipative. Urry (2005b:238) explains the close relationship between chaotic systems and dissipative structures, stating that systems on the edge of chaos are viewed as “interacting dissipatively with their environment so constituting ‘islands of order’ within an increasingly turbulent sea of disorder”. The emphasis is placed on non-linear interactions, which means that small fluctuations in the system can be amplified into large, structure-breaking waves. For example, an individual’s decision to exceed the speed limit could result in loss of control of a vehicle that could result in a major delay in traffic for thousands of other motorists. In such a complex adaptive system, unexpected structures and events with very different properties can arise in various other systems on various different levels. As a result of the delay in traffic, another individual could, for example, be unable to reach a hospital in time to save her life, with the further implication for the development of other social and individual dissipative structures.

Harvey and Reed (1994:377) identify two characteristics of dissipative systems that distinguish them from other natural entities: “First, they have the capacity to import energy from their immediate environment and transform that energy into increasingly more complex, internal structuration”. In other words, dissipative systems accumulate and preserve information because of their ability to increase their structural and functional complexity metabolically. Such dissipative structures are created as complex sub-systems within self-creating systems of various kinds and on various levels, for example. In other words, in non-tangible systems such as value systems within the individual as a self-creating system, a single traumatising experience such as kidnapping will in some way create dissipative structures on the unconscious as well as conscious levels that will have an impact on the individual’s future behaviour and may be life-altering. Second, “although thermodynamically open systems naturally accumulate increasing levels of random disorder, dissipative

systems have the capacity to offset this tendency towards organizational decay by transporting their internal disorder out to their environment” (Harvey & Reed 1994:378). For example, individuals who are prone to accumulate high levels of stress (internal disorder or chaos) often choose an outlet such as physical exercise to release this internal disorder, through which the interaction between the biological and cognitive systems occur when chemicals such as adrenalin or dopamine are released.

On a social system level, individuals may accumulate frustration caused by economic factors and utilise this energy in their social environment by engaging in recruitment of members in an NDSO, for example. Reed and Harvey (1994:378) say this “dual ability of dissipative systems to increase and store information in the form of increasing levels of internal structuration, on the one hand, and to export disorganization to their immediate environment, on the other, are their essential characteristics”. In the human individual, information accumulates continuously, which leads to certain states or phases of confusion (chaos), for example, that are released into his or her immediate environment by means of certain actions with certain positive or negative consequences for both the individual and his or her immediate environment, for example. An individual who has accumulated information (frustration, financial difficulty, social isolation, dependence, low-self esteem, and so forth) may release this energy into the environment by engaging in NDSO activities that may necessarily involve the totality of her existing social structure and will probably result in the creation of new social structures that have been unforeseen previously.

Harvey and Reed (1994:378–391) identify and discuss nine propositions whereby they explore the implications of these dual processes for dissipative structures in detail. These propositions are listed in Table 3.11 below.⁶⁸ It must be noted that Harvey and Reed justify these propositions in mathematical terms to provide evidence within natural systems and therefore only proposition nine is discussed in more detail.

⁶⁸ See Reed and Harvey (1994) for technical information and mathematical formulations of these propositions.

Table 3.11: Harvey and Reed’s nine propositions relating to the dual processes for dissipative structures (1994:378-391)

HARVEY & REED’S NINE PROPOSITIONS	
Proposition one	Dissipative structures are grounded in the dynamics of deterministic chaos
Proposition two	Dissipative structures are ontologically layered, hierarchical entities
Proposition three	Dissipative systems are thermodynamically constituted entities
Proposition four	Dissipative systems are far-from-equilibrium configurations
Proposition five	Dissipative systems are boundary-testing entities
Proposition six	Dissipative systems evolve through mechanisms of assisted bifurcations
Proposition seven	Dissipative systems evolve through symmetry-breaking processes
Proposition eight	Dissipative systems are inherently historical entities
Proposition nine	Social systems are a special class of naturally constituted dissipative systems

In terms of their discussion of the first eight propositions, derived mainly from natural systems, Harvey and Reed (1994:390) identify the following attributes to mark social systems and their evolution:

- 1) From a dissipative structures perspective, social systems can be defined as being material, as well as normative or symbolic configurations. The implication hereof is that a theory of social systems should take into account the effect of energy transfers on the structuring of the practical and productive activities of individuals before considering other levels of analysis such as culture or other symbol-mediated activities.
- 2) As dissipative social systems are not homeostatic entities, and driven by non-linear processes of interaction and reproduction, they may exhibit changes that seem to occur in “disjunctive leaps”.
- 3) The inherently historical nature of dissipative social systems means that they share traits with other evolutionary systems, and, therefore, they are shaped by processes similar to those that regulate physical and biological evolution.
- 4) Social systems are ontologically layered entities. “They consist of hierarchies of distinct levels that are loosely integrated into a self-organizing, systemic constellation”. These multiple levels limit social scientific investigation: as stated earlier, the inability to identify and observe most complex systems that exist within the individual’s biological and cognitive systems therefore remains a “black box” in most social studies.



- 5) As shown earlier in the discussion of the system levels in Boulding's and Miller's taxonomies, it must be noted that "the ontological hierarchy of dissipative social systems ranges from the ecological and technical structures mediating between society and nature, at one end, to historically constituted cultural systems at the other. It follows that these various systems have certain impacts on each other at various levels, jointly and severally, and this further contributes to the unpredictability of dissipative structures.
- 6) Finally, as individuals as composite unities of complex systems are unpredictable, they are never completely socialised into the orders of the system, and can therefore be described as semi-autonomous. Within social systems, individuals may develop mutual "deviances" or "conformities" that identify specific system boundaries that may be a source of non-linear evolutionary change. An example of this is a group of social activists that oppose and eventually change legislation.

While it is acknowledged that the integration of dissipative structures theory in social scientific research still requires further investigation and application, in chapter 5 it will be applied as far as possible to the analysis of individuals as members of NDSOs, and the social systems influenced and created within the boundaries of this study.

From this broad understanding of the nature of complex systems, the section below shifts the focus to the application of the key tenets of Chaos Theory, Complex Adaptive Systems Theory and Dissipative Structures Theory to the formation of complex mental systems, in particular, within the individual as a composite unity of biological and mental systems.

3.6.4 The study of the individual as a composite unity of complex mental systems

The central feature of complex systems is the sensitivity to the initial conditions of the system, with specific reference to mental systems within the individual that are complex, and that initiate emergence, non-linearity, unpredictability, and ultimately create complex social systems. The discussion below focuses on how the understanding of complex systems provided in the previous discussion can be integrated with the understanding of the development of complex mental systems within the individual as a meta-system. It aims to provide insight into the "black box" where computation or information processing occurs and where the drives for individual behaviour and actions are created. The discussion below aims to integrate Piaget's explanation of cognitive development, Carlston's primary and secondary mental systems, the trilogy of mind set, Freud's psychoanalytic theory, Berne's Transactional Analysis, and the systems set of primary parts. This is done in order not only

to provide an understanding of the complexity of individuals' cognitive and mental systems, but also to illustrate the significance of micro-level analysis for the study of individual behaviour and actions. Tables 3.12, 3.13 and 3.14 are compiled for the purposes of this discussion as a summary of the discussions that follow.

Table 3.12: A summary of the discussion on the development of complex mental systems within the individual

THE INDIVIDUAL AS A COMPOSITE UNITY OF COMPLEX MENTAL SYSTEMS		
Theoretical framework	Brief description	Key tenets
Piatet's stages of cognitive development	Describes particular cognitive developments within the individual from birth that can be interpreted as the formation of primary mental systems from which complex mental systems develop	<ul style="list-style-type: none"> • Identifies four stages that can be considered as the formation of primary systems • Particular developments can be identified during each stage
Carlston's Associated Systems Theory	Identifies four primary and four secondary representational mental systems that develop within individuals	<ul style="list-style-type: none"> • Provides a comprehensive account of the representational systems that mediate people's exposure to social stimuli and their ultimate production of memories, judgements, and behaviours.
SETS OF PRIMARY PARTS		
Trilogy of mind set	Divides the mind into motivational, emotional and cognitive areas – the trilogy of mind	<ul style="list-style-type: none"> • Provides explanations for human actions • Serves as a centrepiece in many trait organisational systems <p>...(continued)</p>

THE INDIVIDUAL AS A COMPOSITE UNITY OF COMPLEX MENTAL SYSTEMS		
SETS OF PRIMARY PARTS		
Freud's structures	<p>First set of primary parts divides mind into the conscious, preconscious and unconscious with Freud's emphasis that on the transfer of unconscious matter to the conscious to change behaviour.</p> <p>Second set divided the mind into the id, the ego, and the superego which provides best description of conflict between different parts of the mind</p>	<ul style="list-style-type: none"> • Conscious is a sense organ which saw the rest of the mind • Preconscious consists of material that can become conscious • Unconscious, primary unconscious and repressed unconscious • The model plays an influential role in psychotherapy • The id is animalistic part of personality • Ego is part conscious and responsible for understanding behaviour of outside world • Superego oversees the ego and ensures morality and ideals; contains rules acquired from parents that guide behaviour in socially approved ways <p>...(continued)</p>

THE INDIVIDUAL AS A COMPOSITE UNITY OF COMPLEX MENTAL SYSTEMS		
SETS OF PRIMARY PARTS		
Berne's Transactional Analysis	<p>The psychological system is made up of three ego states:</p> <ul style="list-style-type: none"> • the extero psyche, or parent system • the neo psyche, or adult system • the archa eo psyche, or child system 	<ul style="list-style-type: none"> • Parent system is judgmental in nature” and “seeks to enforce a set of rigid standards that have been borrowed from one or more parental figures in the individual's past • Adult system functions in an objective, rational manner and is primarily concerned with reality testing • Child system consists of a set of feelings, attitudes, and behaviour patterns which are relics of the individual's own childhood
Systems set of primary parts	<p>Describes three primary parts of an activity progression: the energy lattice, knowledge works, and role player; overseen by a fourth: executive consciousness</p>	<ul style="list-style-type: none"> • Motives and emotions form the energy lattice and function to direct the individual's activities in general. • Knowledge works contain sophisticated information about the self and the world that facilitates functioning in a complex environment • The role player forms and enacts plans about social interaction. • The executive consciousness is aware of internal states, internal representations of external situations and aware of the analysis of those by knowledge works.

3.6.4.1 Piaget's stages of cognitive development

With specific emphasis of the individual as a composite unity of biological and mental systems, it is argued that these mental systems are constituted by or consist of various complex systems of different kinds, operating at different levels of complexity. Therefore, the initial conditions of the individual as a supra-system become of particular relevance in this conversation. As Fortosis and Garland (1990:631) observe, Piaget's studies on cognitive development conducted over several years "demonstrated that there was a developmental aspect to the cognition of people beginning in the earliest years of infancy and continuing through clearly defined stages into adulthood". While these stages are identified in this conversation, the argument presented here is that, with reference to the complex sub-systems that drive self-creating systems in the individual, these "stages" should rather be considered as the development of complex sub-systems that drive the individual (mostly) on the unconscious level.

Bjorklund (1997:144) holds a similar view, as he states that "cognitive developmentalists have concluded that discerning meaning is not as simple as psychologists who study metacognition or social cognition believe, but involves a host of more elementary, or *basic processes*, most of which are unconscious". He also agrees that, in spite of the contention that surrounded it, Piaget's theory still showed that "at the heart of development were still the functional invariants of organization and adaptation, the knowledge that development was a constructive process, and the principle of epigenesis".⁶⁹ Piaget's constructivist theory of genetic epistemology and his work on cognitive development in children in particular has been widely support in cognitive studies and he has become a reference for constructivist epistemology.

In Piaget's view, early cognitive development involves processes based upon actions, and later progresses into changes in mental operations. A summary of the key concepts of Piaget's theory that can be identified from within different sources, such as Von Glasersfeld (2001), Malerstein and Ahern (1979), Fortosis and Garland (1990), Bjorklund (1997), Russel (1999), Harris (2009), Niaz (1992), and Atherton (2010), which are presented in Table 3.13 below:

⁶⁹ Epigenesis is a term used in biology (and geology) to refer to morphogenesis (or the formation of structures) and the development of organisms. In philosophy, it can be used to refer to human individuals' creative intelligence as the cause of all human (and other related) development, whereas "morphogenesis" can refer to the development of cognitive structures in relation to the development of biological structures.

Table 3.13: Key concepts in Piaget’s theory of cognitive development

KEY CONCEPTS IN PIAGET’S THEORY OF COGNITIVE DEVELOPMENT	
CONCEPT	DESCRIPTION
Schemas	A schema describes both the mental and physical actions involved in understanding and knowing. Schemas are categories of knowledge that help individuals to interpret and understand the world. In Piaget’s view, a schema includes both a category of knowledge and the process of obtaining that knowledge. As experiences happen, this new information is used to modify, add to, or change previously existing schemas
Assimilation	The process of taking in new information into our previously existing schemas is known as assimilation. The process is somewhat subjective, because individuals tend to modify experience or information somewhat to fit in with their pre-existing beliefs
Accommodation	Another part of adaptation involves changing or altering existing schemas in light of new information, a process known as accommodation. Accommodation involves altering existing schemas, or ideas, as a result of new information or new experiences. New schemas may also be developed during this process.
Adaptation	to the world through assimilation and accommodation.
Classification	the ability to group objects together on the basis of common features
Conservation	the realisation that objects or sets of objects stay the same even when they are changed about or made to look different
Decentration	the ability to move away from one system of classification to another one as appropriate
Egocentrism	This refers to individuals’ belief that they are the centre of the universe and everything revolves around them, together with the corresponding inability to see the world as someone else does and adapt to it
Equilibration	Piaget believed that all children try to strike a balance between assimilation and accommodation, which is achieved through a mechanism Piaget called equilibration. As children progress through the stages of cognitive development, it is important to maintain a balance between applying previous knowledge (assimilation) and changing behaviour to account for new knowledge (accommodation). Equilibration helps explain how children are able to move from one stage of thought into the next
Operation	This refers to the process of “computation”, as referred to by Von Foerster (2003); in other words, the process of “working things out” (Atherton 2010)

In Piaget’s view, early cognitive development involves processes based upon actions and later progresses to changes in mental operations. In summary it can be said that the child progresses through certain stages of development that each represents a cognitive stage, or as is argued here the establishment of a cognitive system. Cognitive development necessarily coincides with biological development in healthy individuals. Piaget identifies four stages of cognitive development, which are summarised in Table

3.14 below. Current research findings⁷⁰ confirm that the individual’s personality is fixed by the age of seven years old. With the emphasis in this conversation on individuals’ sensitivity to initial conditions in their complex mental systems, only the first two stages of development, namely the sensorimotor and preoperational stages, are considered in more detail.

Table 3.14: A summary of Piaget’s stages of cognitive development

STAGE	PERIOD OF DEVELOPMENT	DESCRIPTION OF KEY DEVELOPMENTS
Sensorimotor stage	Between the ages of 0 – 2 years old	<ul style="list-style-type: none"> • Reflexes (0-1 month): • Primary Circular Reactions (1-4 months): • Secondary Circular Reactions (4-8 months): • Coordination of Reactions (8-12 months): • Tertiary Circular Reactions (12-18 months): • Early Representational Thought (18-24 months):
Preoperational stage	Between the ages of 2 – 6 years old	<ul style="list-style-type: none"> • Language development is the hallmark of this stage • Children at this stage do not understand concrete logic; they cannot mentally manipulate information • Unable to take the view of other people: egocentrism • Increasingly adept at using symbols • Increase in playing and pretending (pretending a broom is a horse for example) • Role playing becomes increasingly important during this stage (mommy, doctor, teacher, etc.) • Conservation: Piaget conducted a number of experiments on conservation of number, length, mass, weight, volume and quantity. <p style="text-align: right;"><i>...(continued)</i></p>

⁷⁰ An interview was conducted with Nave (2010) on CNN: *Study: Personality is fixed early on*, based on the study that was conducted at the University of California, Riverside.

STAGE	PERIOD OF DEVELOPMENT	DESCRIPTION OF KEY DEVELOPMENTS
Concrete operational stage	Between the ages of 7 – 11 years old	<ul style="list-style-type: none"> • Children begin to think logically but are very concrete in their thinking • Children gain a better understanding of mental operations Children can now think logically but are very concrete in their thinking • Can now conserve and think logically but only with practical aids • They are no longer egocentric • Piaget determined that children in the concrete operational stage were fairly good and the use of inductive logic • Children have difficulty using deductive logic at this stage • Reversibility – one of the most important developments at this stage is the awareness that actions can be reversed
Formal operational stage	From the age of 11 years old - adulthood	<ul style="list-style-type: none"> • The formal operational stage begins in most people at age twelve and continues into adulthood. • This stage produces a new kind of thinking that is abstract, formal, and logical. Thinking is no longer tied to events that can be observed. • A child at this stage can think hypothetically and use logic to solve problems. • It is thought that not all individuals reach this level of thinking.

- ***The sensorimotor stage (visual/sensory system)***

In summary, this stage is characterised by the child's ability to differentiate her-/himself from objects and by recognising her-/himself as an agent of action who can act intentionally. For example, a child pulls a string to activate a toy. The early representational thought is evidenced by the achievement of object permanence, in other words the ability to realise that things continue to exist even in their absence. Much of the development in the primary mental systems discussed above appears to emerge from stimulus-response processes that correspond with behaviourist paradigms, such as classical and operant conditioning.

Further elaboration may distract from the focus of this conversation, although Perceptual Control Theory⁷¹ developed by Powers (1973) provides further insight into how individuals learn to “behave” in certain ways, and this can be traced to this stage in human cognitive development.⁷² It can be said in brief that the individual’s creation of an operationally closed system, as referred to below, in the discussion of second-order cybernetics, occurs during this stage of cognitive (and emotional) development. The preoperational stage marks the development of further control mechanisms, insofar as the individual learns to define and articulate her-/himself through the use of symbols and thereby initiate further recursive processes in the various complex sub-systems that continue to form.

- ***The preoperational stage***

The preoperational stage occurs between the ages two and six, and is probably the most significant stage, as it is argued here that the dominating cognitive systems develop during this period. The two dominant systems that develop during this period are the ego system and the language system.

In reference to “self-reference” and “recursivity” in particular, as key concepts in the discussion of second-order cybernetics and autopoiesis below, it is of fundamental importance to consider the formation of the individual’s ego system insofar as it relates directly to these concepts. It is further of great significance to acknowledge that the individual, as a self-creating system, creates the cognitive and/or psychic sub-systems that ultimately drive her or his thoughts and actions *unconsciously* during this stage of development, while creating (and co-creating along with other biological, individual, social and environmental systems) actual cognitive and/or psychic systems and sub-systems.

While this development and construction occurs at this stage in a child, it can be argued that where the child is not conscious of these developments, the adult is also not conscious of how these complex systems interact and impact on all (past, present and future) behaviour to a greater or lesser extent, relative to the creation of various complex adaptive sub-systems, dissipative structure formations as well as the overall prevalence of chaotic systems within the individual. What is most important is to recognise that the future development of the individual’s self-referential systems⁷³ is to some significant degree determined during this stage of cognitive development. Sensitivity to initial conditions has been recorded as one of the key characteristics of most complex systems, and therefore

⁷¹ Cf. Dyslin (1998).

⁷² See Powers’s (1973) arguments relating to the human being as a control system.

⁷³ See Mingers (1997) for a classification of self-referential systems.

such sensitivity to the initial conditions that created the primary mental systems in the individual is most likely to have the same potential for the profound effects observed and recorded in natural systems, for example. As Carlston (1994:5) reports, research has “suggested that when people access cognitive representation, they may actually reactivate structures within the primary system that was involved in the initial perception or production of this material”. In other words, the utilisation of mental images may cause the activation of structures in the visual system that may produce an experience that is similar to the original experience that created those structures in the individual’s visual system.

It can be argued further, from the understanding of “self-reference” and “recursivity” discussed under second-order cybernetics below, that the *ego system* is the dominating cognitive system that has the greatest influence on individuals’ behaviour, as it oscillates between conscious and unconscious modes of interaction among different biological, cognitive and/or psychic systems. Ultimately, as the conversation in this study aims to conclude, individuals’ ego systems are primarily responsible for their engagement in NDSOs, whether their behaviour can also be attributed to material or to other social purposes, (consciously or unconsciously) or not. This point will be taken up again in the discussion of second-order cybernetics below, and also in the next chapter.

Another major development during this stage is individuals’ use of language and the ability to represent objects by images or words. The cognitive revolution that occurred in the 1950s made a major contribution to understanding language acquisition and development with particular reference to Chomsky’s work on generative grammar and biolinguistics.⁷⁴ In essence Chomsky (2006) shows that that biological, cognitive and mental systems co-create language and that individuals personalise or individualise their language through the combination of symbol and experience combinations.

The understanding of language and symbols gained further impetus with the posthumous publication of Mead’s work *Mind, Self & Society* (1934), and the concept “symbolic interactionism” that developed from his work. Mead provides insight into the creation of meaning through his explanation of how the individual creates meaning through the structure of the nervous system.⁷⁵ His identification of the “I” and the “me” explains the relationship not only between the individual and others but also between the individual and the individual’s perception of her-/himself as perceived by others. Without further elaboration, it can be said

⁷⁴ See Chomsky (2006) for his discussion of language and mind, and his explanation of structural formation of language as both cognitive and mental processes.

⁷⁵ See Mead (1934) for a social behaviourist perspective and the development of the human mind.

in summary that through the use of symbols (language and other) the individual creates a perception of “self” and “others” that is embedded in all other mental systems, but particularly the ego system. The individual creates language and thereby creates her-/himself and as the verbal system becomes more complex; other systems also become more complex on both conscious and unconscious levels.

3.6.4.2 Associated Systems Theory

The discussion of Piaget’s theory corresponds to some extent with Associated Systems Theory, developed by Carlston (1994) with the goal of providing a comprehensive account of the representational systems that mediate people’s exposure to social stimuli and their ultimate production of memories, judgements, and behaviours. Associated Systems Theory proposes the existence of four primary mental systems, although several other systems may be identified. The basic mental processes covered in neuropsychological texts typically include sensory/perceptual processes, the motor system, language, emotion, and memory.

According to Carlston (1994) the hallmark of the social cognition approach to social psychology is the assumption of continuity between cognitive processes operating in social and non-social domains. An extension of this assumption is that there is also continuity in mental systems operating in social and non-social domains. In other words, social cognition processes necessarily derive from the same perceptual language and response systems that govern other human activities.

When Piaget’s stages of development are compared to Carlston’s articulation of primary and secondary mental systems, it can be noted that the mental systems identified by Carlston revolve primarily around “the modes in which person-related information can be represented” (Fiedler 1994:115). In other words, AST does not, and does not claim to, identify all mental or cognitive systems and sub-systems that may exist in the human brain. Carlston (1994) identifies four primary mental systems, namely:

- a visual/sensory system,
- a verbal/semantic system,
- an affective system, and
- an action system.

Carlston (1994:4) explains that these systems are hierarchically organised, and he states “The lowest levels of such systems consist of highly specialised physical structures that are

involved in the reception of stimuli and the production of responses, and the highest levels consist of abstract concepts that relate to these perceptual or response processes” This reference to hierarchical organisation in these primary mental systems can be related to systems hierarchy as identified in the discussion of General Systems Theory. It is reiterated here that Associated Systems Theory is a systematic approach to the cognitive representation of *persons* and therefore the characteristic representation⁷⁶ of each mental system described below refers solely to person perception, or individuals’ perception of other individuals. Figure 3.6 below presents an adapted model of Carlston’s mental systems

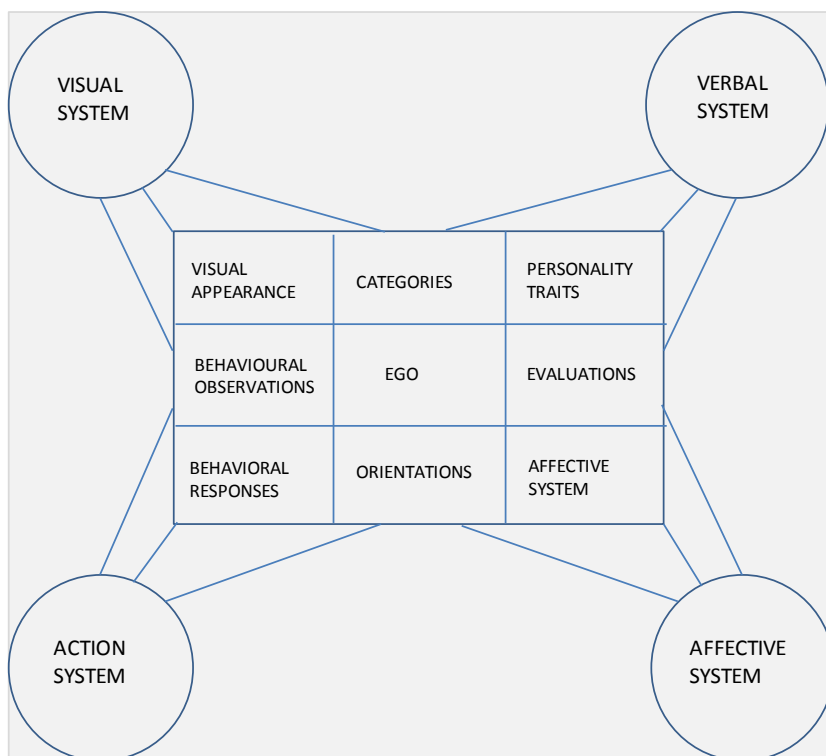


Figure 3.6: Structural representation of the interrelationships among forms of person representation and primary mental systems (adapted from Carlston, 1994:7)

Carlston (1994:6) hypothesises that the characteristic representation of the visual system is a visual image of a person’s appearance, which broadly includes physical expressions and mannerisms, as well as static features such as attractiveness or size. Goffmann (1967) provides further insight into representation, which he refers to as face-work.⁷⁷ Words and propositions are the characteristic representations of the verbal system, and in the perception of persons, it is likely that the verbal system will perceive personality traits, such

⁷⁶ Cf. Henneberg, Mouzas and Naudé (2006).

⁷⁷ See Goffmann (1967) for his analysis of ritual elements in social interaction for further clarification of the creation and operation of visual systems.

as those imbedded in individuals non-verbal communication that accompanies such words and propositions. George Kelly's Personal Construct Theory,⁷⁸ also referred to earlier, formed the foundation of Delia's theory of Constructivism (1987) and shows that the individual creates her/his reality through the creation of constructs that constitute cognitive complexity. In reference to the affective system, Carlston (1994:6) states: "The characteristic representation for the affective system is presumably an affective response – that is an abstract representation of affect that is linked to physiological structures involved in the primary experience of emotion".

While it is not explicated in Piaget's theory, the creation and development of the emotional (affective) system occurs concurrently with the development of the other primary mental systems. As with most mental systems, emotions have a physiological component, although the identification and labelling of bodily feelings are learned socially and differ from one cultural environment to another (Littlejohn & Foss 2008:85). The creation of the affective system can, for example, be considered from within behaviourist, cognitive or constructivist paradigms, as it is considered in the next chapter. Suffice it to say at this point that the affective system is considered to be fundamental to the overall development of all other systems within the individual as a self-creating system.

Carlston (1994:6) identifies the fourth primary system as the action system, which has the characteristic representation of behavioural response, described as "an abstract representation of a meaningful sequence of acts that, in the interpersonal context, are directed at another human being". Considering the interrelations between biological and mental systems, each mental system presumably follows certain procedures and utilises different knowledge bases to execute its various functions.

The "categories" illustrated in Figure 3.6 include characteristics of both the visual and verbal systems, with the implication that categorisations embody both appearance information and trait information (Carlston 1994:7). Studies on non-verbal communication by Birdwhistell (1952) and Mehrabian (1972), for example, reveal that at least 85 percent of communication is non-verbal. It can therefore be argued that the visual system has a dominating influence on the development of the other primary mental systems, with specific reference to individuals' representation of others as well as the representation of themselves. A wide

⁷⁸ See Kelly (1956) and Delia (1987) for further clarification of PCT and the theory of constructivism as it relates to the verbal system, referred to in this conversation.

range of categorisations is encompassed in this category, ranging from traits such as “good” or “fantastic”, to more affective perceptions such as “I do not like him”.

“Orientations” refer to representations that combine affect and action and can be described as “tendencies” or “predispositions” to behave in a particular manner (Carlston 1994:7). Behavioural observations can be described as a subset of entries in episodic memory that incorporates both visual/sensory information and behavioural-response features of the action system (Carlston 1994:7). With reference to second-order cybernetics, discussed below, the self-creating properties of individuals can be identified within these systems insofar as individuals’ representation of other people are integrated with perceptions of their appearance together with features of the individuals’ own role in the recorded events. The understanding of representative systems is of particular importance because, as Von Foerster (2003:283) states, an observation is made *to* somebody; which means that the individual is/becomes conscious in relation to others. It can therefore be accepted that primary mental systems are formed by/through the processes of representative systems.

As it is illustrated in Figure 3.6, Associated Systems Theory suggests the existence of at least eight mental systems: four primary systems that govern vision, language, affect (emotion), and action; and four secondary systems that govern categorisation, evaluation, orientation, and episodic memory.

As Carlston (1994:21) shows, neural-network models generally assume that separate cognitive systems are massively interconnected in some way. To recapitulate, the purpose of this discussion on the initial conditions in the individual as a composite unity of biological, cognitive, and/or psychic systems is to illuminate that the consideration of the individual’s formation years and hence the early influences on the creation and development of the various complex sub-systems that impact on future behaviour at large is of great significance for the understanding and explanation of human behaviour and communication.

The section below provides an overall discussion of the primary parts summarised in Table 3.12 with further elaboration on concepts that are of specific relevance to the discussion in general.

3.6.4.3 Personality Theory and primary parts: a systems perspective

Mayer (2001:449) points out that personality psychology consistently draws on personality parts, which are generally mental mechanisms, internalised mental models, and traits, as

well as sets of primary parts, which are expansive in reach and are intended to describe the totality of personality. As indicated in Table 3.12, these sets of primary parts are the trilogy-of-mind set, Freud's structural set, and the systems set of primary parts. Berne's theory of Transactional Analysis was developed from Freud's work, and is therefore discussed within this framework, although Mayer (2001) does not include it in his taxonomy. Freud's views were the source of much contention.⁷⁹

Mayer (2001:451) says that personality is viewed as an organised set of mental processes that emerge from biological roots, particularly brain functions and smaller psychological operations such as sensation and perception. As it has been stated earlier, the individual does not operate in isolation, and therefore the personality system is necessarily connected to larger social systems. The primary parts are divided into agencies that can be described as "large incorporations of personality parts that carry out a broad but unitary set of personality functions. Mayer (2001:451) says sets of primary parts share four distinguishing characteristics:

1. Each member is a broadly functioning *system* composed of mental mechanisms and models referred to as an agency [emphasis added].
2. The set of parts is comprehensive in describing personality.
3. Each set of parts possesses economy of number.
4. Each set of parts is universal across people.

Mayer's (2001) discussion of these ego systems confirms the observation made earlier that Piaget's stages of cognitive development may actually refer to cognitive and/or mental *systems* and not just stages of development. In other words, depending on the individual's particular ego states at different times, the individual may exhibit behaviour that represents parent, adult, or child systems respectively, as also referred to by Baskin and Bruno (1977). This explains why individuals may, for example, act egocentrically or judgmentally, and affirms that the initial conditions of the complex sub-systems in the individual have an effect on future behaviour.

Considering complexity as it was addressed in the discussion of General Systems Theory, together with the complexity theories discussed in this section, and applied to the complex

⁷⁹ See McCulloch's discussion of Freud's life and work in a chapter titled "The Past of a Delusion" (McCulloch 1965:276-304).

mental systems within the individual as a composite unity of biological and mental systems, the key considerations for the purposes of this conversation are articulated below.

3.6.5 Key considerations for the study of individuals from a complexity perspective

The following key considerations for the application of complexity theories in this chapter are articulated as follows:

- Individuals as meta-systems comprised continuously creating complex systems of different kinds that operate on a predominantly unconscious level and that drive individual behaviour and actions.
- Chaotic systems within the individual's mental systems are created through high levels of entropy that cannot be reduced to a sufficient level at particular times.
- Complex adaptive systems can be understood as systems that create mechanisms of learning or recursion that enables the individual to adapt to situations as they occur, whether that be within very short or longer time frames.
- Dissipative structures explain how individuals can exhibit inexplicable behaviours that are related to energy inputs and outputs that occur through non-linear and therefore unpredictable interaction among a multitude of systems.
- The individual's primary and secondary mental systems, and therefore personality, is established, more or less, by the age of seven years, and these primary and secondary systems determine the creation of complex systems and thus the emergence of future behavioural patterns.
- The high degree of unconscious interaction among various systems, with particular reference to the interaction among biological and mental systems, makes it difficult for the individual to manage certain behaviours consciously.
- The individual is a self-creating meta-system that can change systems' behaviour through the transference of information from unconscious to conscious levels of perception.

The discussion of second-order cybernetics below provides further evidence to support some of these claims.

3.7 INDIVIDUALS ARE SELF-CREATING SYSTEMS: SECOND-ORDER CYBERNETICS AND AUTOPOIESIS

The conversation thus far has aimed to identify the dynamic nature and properties of systems, and particularly complex systems. It is therefore apparent at this stage that organisations are social systems that portray features that are similar to natural systems. While the study of social systems (such as organisations) as self-creating or autopoietic systems appear to be more recent, a dynamic view of organisations was already evident in the work of Karl Weick. According to Weick (1979), the information environment does not just exist, but is created through a process of enactment. In other words, members of organisations will perceive information inputs differently and will create different information environments. For example, members of network direct selling organisations may see the recruiting of new members as a social activity, while others may see it as a formal meeting environment. Weick (1979:91) defines the process of organising as “the resolving of equivocality in an enacted environment by means of interlocked behaviours embedded in conditionally related processes.” He made a specific distinction between *organisation* and *organising*⁸⁰. Weick (1979:88) states that

... the word organization is a noun, and it is also a myth. If you look for an organisation you won't find it. What you will find is that there are events linked together, that transpire within concrete walls and these sequences, their pathways, and their timing are the forms we erroneously make into substance when we talk about and organization.

It is therefore evident that the self-creating properties of social systems such as organisations have not become more evident in contemporary studies because of the shift towards second-order cybernetics and autopoiesis alone. It can be seen as an accumulation of consciousness that became established through the developments in first-order cybernetics, complexity, as well as second-order cybernetics within the cybernetic metaperspective as a transdisciplinary collaboration among scientists in almost every field of study, as the discussion until now has aimed to show.

While this cooperative and accumulative development in system thinking is noted, Mingers (1997:304) argues that one of the most significant developments in systems theories since the early days of General Systems Theory has been the establishment of second-order cybernetics and Maturana and Varela's development of autopoiesis, as he states:

Autopoiesis, in fact, has a foot in both camps. It is in the tradition of GST: a systems theory generated in the domain of biology that may be applied in other disciplines such as social theory; but also it is a theory of the observer that emphasizes the interpreted and constructed nature of social reality.

⁸⁰ Also see Webb and Weick (1979).

It has been established throughout the conversations in this chapter, and confirmed by the arguments across physical and social disciplines, that the observer cannot be separated from the observation and hence that the individual, as a composite unity of biological, cognitive and/or psychic systems cannot be distinguished or separated from any observation. The implications of this view, for the study of NDSOs in particular, is that the understanding of human behaviour ultimately depends on the understanding of the *individual* as meta-system that consists of and is driven by various complex systems that propel her or his autopoietic (self-creating) systems.

Maturana and Varela's theory of autopoiesis, as a theory of biology and cognition, along with Luhmann's development of social autopoiesis, provides the core theoretical foundations for the understanding of second-order cybernetics. Von Foerster himself is acknowledged by Glanville (1996), Von Glasersfeld (1996; 1997), Poerksen (2003), Umpleby (2003), Brier (2005), Hernes and Bakken (2003), Luhmann (1996), and several others, for his profound contribution to the development of second-order cybernetics, although his contributions become more evident from their applications in the theoretical developments of others, than in his own publications.⁸¹

With the understanding that the study of individuals as self-creating (autopoietic) systems shifts the focus from observation to observing, and therefore to the individual who creates herself or himself, and in doing so organises and creates organisations, the conversation progresses to the discussion of second-order cybernetic concepts, characteristics and premises.

3.7.1 Second-order cybernetics and autopoiesis

According to Geyer (1995:12) the clear articulation of second-order cybernetics occurred only in 1970, when Von Foerster coined the term in his distinction between first-order cybernetics as the cybernetics of observed systems and second-order cybernetics as the cybernetics of observing systems. Aguado (2009:59) claims that one of the milestones of second-order cybernetics is the distinction between two coexisting epistemological traditions in Western thought, which are:

⁸¹ See Von Foerster (2003).

...on the one side, the tradition that radically separates scientific knowledge from general knowledge via the incommensurability of the subject and the object of knowledge and, on the other side, the tradition that correlates scientific knowledge to general – and, hence, to ordinary pragmatic – knowledge in terms of a complementary emergence of subject and object interaction.

It is therefore clear that “general knowledge” as such cannot be seen as an external phenomenon that can occur through a distinction between the object and subject of such knowledge. Geyer (1995:12) provides further clarification when he shows that the explicit inclusion of the observer in the system(s) studied from a second-order cybernetics perspective clearly places the emphasis on the study of living systems, while illuminating the biological basis of this approach. Umpleby (1994:2) shows, however, that the roots of second-order cybernetics were already present when the field of cybernetics was founded in the 1940s. He shows that second-order cybernetics has led to important theoretical understandings that have been of particular interest to studies relating to the nature of knowledge, cognition and understanding per se, as he states: “The ‘second order cyberneticians’ claimed that knowledge is a biological phenomenon (Maturana 1970), that each individual constructs his or her own ‘reality’ (von Foerster 1973) and that knowledge ‘fits’ but does not ‘match’ the world of experience (von Glasersfeld 1987).” Geyer (1995:12) shows, in reference to Umpleby, that the emphasis on living systems in second-order cybernetics has the following important consequences (for the study of social systems):

- 1) All living systems have a will of their own, and do not only self-produce, but also produce their own parts or sub-systems, generally utilising elements from their environment(s), such as the use of energy referred to in the discussion of dissipative structures. This means that living systems are thus organisationally closed, but informationally open.
- 2) The result of this is that living systems are more difficult to steer or control and that their interactions with their environments (which they also create to a certain extent) are almost impossible to predict more than “a few moves ahead”. It is therefore held that second-order cybernetics is more realistic about the possibilities of steering, and concentrates instead on understanding the evolution of biological and social complexity rather than on controlling it.
- 3) Second-order cybernetics can therefore also be distinguished from first-order cybernetics by its interest in morphogenesis and positive feedback loops, rather than on homeostasis and negative feedback loops.

With the focus shifting to Maturana and Varela’s work on the biology of cognition, and Von Foerster’s discussions on the construction of reality from this perspective, it is considered relevant and appropriate to clarify the application and meaning of “cognition” within second-

order cybernetics. In reference to “control” and “steering” as it has been developed within first-order cybernetics, and related to Geyer’s observation above, it is stated here that the “living system” (with reference to the individual human being), as a composite unity of biological and cognitive systems, is very much a controlling entity. In other words, while it may be difficult for individuals to steer or control other individuals, the individual (as a self-creating system) is at all times engaged in controlling herself or himself to a certain degree, whether consciously or unconsciously. Therefore, the emphasis on the observer, who cannot be separated from her or his observations, implies that any study of individual behaviour must necessarily consider the self-creating, self-organising, self-steering activities that drive individual behaviour. Further, as operationally closed systems, individuals are self-controlling systems. Therefore, the significance of first-order cybernetics in the study of second-order cybernetics is abundantly clear. The argument to be made here is that the control mechanisms within the individual as an autopoietic (self-creating) system only become apparent through the understanding of communication as it has been articulated and applied within first-order cybernetics. With reference to Morgan’s reference to the “mechanistic” metaphors (Morgan 1998), where the emphasis was placed on structure, function, circularity and so forth, which led to theorising about the bureaucracy, as by Weber for example, and had certain social applications from a macro perspective.

However, when the individual becomes the unit of analysis (from a micro perspective), these concepts obtain a different meaning, insofar as “control” and “steering” of the individual herself or himself is the subject under investigation. Varela, Maturana and Uribe (1974:187) argue (in their articulation of living systems) that the overemphasis on isolated components has diverted the focus from the organisation which makes a living system a whole autonomous unity: “As a result, processes that are history dependent (individual organization) have been confused in the attempt to provide a single mechanistic explanation for phenomena which, although related, are fundamentally distinct”. As deliberated in the discussion of complexity earlier, the study of the individual as a self-creating system necessarily involves the study of complex systems. In this regard Varela, Maturana and Uribe (1974:187–188) state:

Every unity can be treated either as an unanalyzable whole endowed with constitutive properties which define it as a unity, or else as a complex system that is realized as a unity through its components and their mutual relations. If the latter is the Complex Adaptive Systems, a complex system is defined as a unity by the relations between its components which realize the system as a whole, and its properties as a unity are determined by the way this unity is defined, and not by the particular properties of its components. It is these relations which define a complex system as a unity and constitute its organization.



In other words, the study of the individual and therefore individual behaviour and actions becomes the study of the relations and interchanges between the complex sub-systems that realise the individual as a whole system. With the understanding that the individual is a composite unity of biological and cognitive systems, and further, that these systems exist on different levels of complexity as well as different levels of consciousness, it is clear that the term “multiplexity” is more apt. The emphasis on biological systems insofar as the study of the individual is concerned is deemed correct and appropriate, considering, for example, that the primary mental systems identified by Carlston, Mayer, Freud, Berne and others discussed earlier (see 3.6.4) are biologically determined. In other words, individuals cannot create mental systems such as a visual, verbal or any other system for that matter, without their biological systems.

Maturana and Varela (1980:7) argue that “Cognition is a biological phenomenon and can only be understood as such; any epistemological insight into the domain of knowledge requires this understanding”. They support this claim by stating that “The observer is a human being, that is a living system, and whatever applies to living systems apply also to him”. Therefore, “the cognitive domain is *the entire domain of interactions* of the organism” (Maturana & Varela 1980:38; emphasis added). The distinction between human individual and other living systems is that human individuals can observe and describe themselves in a recursive manner. Maturana and Varela (1980:41) explain that through such self-description “the organism becomes a self-observing system that generates the domain of self-consciousness as a domain of self-observation”. Herein lies the clear distinction between the focus in second-order cybernetics (as introduced by Von Foerster) and autopoiesis (as presented by Maturana and Varela), as Maturana and Varela (1980:41) state: “Self-consciousness then is not a neurophysiological phenomenon, it is a consensual phenomenon emerging in an independent domain of interactions from self-orienting behaviour and lies entirely in the linguistic domain”. They add, however, that the independence of this domain of interactions is not complete because on the one hand

...the anatomical and neurophysiological organization of the brain, by determining the actual possibilities of confluence of different states of activity in it, specifies both the domain of possible interactions of the organism with relations and the complexity of the patterns of orienting interactions that it can distinguish, and on the other hand because of the necessary subservience of the linguistic domain to the basic circularity of the organism through the generation of modes of behavior that directly or indirectly satisfy it limits the type of conduct that the organism can have without an immediate or eventual disintegration, ...

The problem with such interdependence between physiological or biological systems for the study of individual behaviour lies in the inability of human individuals to observe the physical, chemical and living processes, as Luhmann (1995:40) states: “The living system is

inaccessible to the psychic system; it must itch, hurt, or in some or other way attract attention in order to stir another level of system formation – the consciousness of the psychic system – into operation”. Hernes and Bakken (2003:1514) say that while the communication between systems cannot be observed directly, it presents itself in the form of actions. However, as it was shown earlier, by definition the infinite number of possible interactions among various biological, cognitive, psychic and social systems means that individuals’ actions cannot be accounted for. Yet, with some understanding of the principles of Complex Adaptive Systems, Chaotic Systems, and Dissipative Structures, together with the understanding of cognitive development and the formation of cognitive sub-systems, it has to be acknowledged that any claims relating to individuals’ behaviour have to consider that there will always be indeterminable variables that have different degrees of impact on different levels of analysis.

It is considered more pertinent at this point to identify and define some of the key concepts in second-order cybernetics, namely “self-reference”, “recursivity” and “self-organisation”. Geyer (1995:15) also discusses “self-steering”, “autocatalysis” and “autopoiesis” as second-order cybernetic concepts. Self-steering and autocatalysis will be defined in brief as they relate to the understanding of second-order cybernetics, while autopoiesis will be discussed separately below. As the clear understanding of these concepts and their application(s) within second-order cybernetics is of fundamental importance, they will be discussed individually below.

3.7.1.1 Self-reference

Geyer (1995:15) says that “the important concepts of second-order cybernetics all start with ‘self’, if not in English, then in Greek (‘autopoiesis’)”. Luhmann (1995:33) states that: “The concept of self-reference designates the unity that an element, a process, or a system is for itself”. The significance of this definition is it immediately presents a self-creating (autopoietic) system as closed, as Luhmann (1995:33) explains that “unity can come about only through a relational operation, that it must be produced and that it does not exist in advance as an individual, a substance, or an idea of its own operation.” Luhmann (1995:33) provides the essential link between the complexity theories (discussed earlier) and self-reference, as he explains:

Self-reference possesses indeterminable complexity in the form of paradox. Self-referentially operating systems can become complex only if they succeed in solving this problem and thus in de-paradoxicalizing themselves. One can call a system self-referential if it itself constitutes the elements that compose it as functional unities and runs reference to this self-constitution through all the relations among the various elements, continuously reproducing its self-constitution in this way. In this sense, self-

referential systems necessarily operate by self-contact; they possess no other form of environmental contact than this self-contact.

In other words, individuals as self-creating systems are *operationally closed*, while they are *communicatively open*. With reference to Complex Adaptive Systems, Dissipative Structures and Chaotic Systems that are open, it is pertinent to understand that these “open” systems are created within the operationally “closed” self-referential system(s). Bopry (2007:35) explains that because of organisational closure the system adapts to its environment and communicates with other like systems through *structural coupling*, which refers to “recurrent interactions between two entities that allow their structures to change while at the same time maintaining their identities” (emphasis added). In reference to the cognitive function in particular, Maturana and Varela (1980:25) provide further insight into the understanding of self-reference, as they state:

The closed nature of the functional organization of the [nervous] system is a consequence of the self-referring domain of interactions of the living organization; every change of state of the organism must bring forth another change of state, and so on, recursively, always maintaining its basic circularity.

Umpleby (1994:3) points out that while second-order cyberneticians (such as Maturana and Varela), have developed the understanding of self-reference in the biological and linguistic domains, “self-reference occurs quite commonly in social systems”. Von Foerster (2003) articulates the distinction between self-reference in biological systems and in social systems clearly in his discussions of circularity and recursivity.⁸² Geyer (1995:18-19) distinguishes three meanings of self-reference to clarify the assumption that self-reference is typical of human beings:

- 1) The “neutral” meaning, used in first-order cybernetics specifically, though not exclusively, is applicable to non-living or non-biological systems where “self-referencing control” indicates that any changes in the state of a system depend on the previous state of the system. For example, the growth rate in NDSOs is dependent on its current population;
- 2) The “biological” meaning, “where senses and memory are the minimum requirements, and where self-referential systems can be defined as a system that contains information and knowledge about itself, that is, its own state, structure and processes; like for example human beings”; and

⁸² See Von Foerster's article on “Constructing a Reality” in which he presents an explanation of cognition as “computing descriptions of a reality”, which he develops to eliminate “reality” as an unknown, arguing that “Reality appears only as implicit as the operation of recursive descriptions”.

- 3) The second-order cybernetic meaning (that applies specifically to human beings here), where an individual or social system collects information about its own functioning and can influence that functioning through self-observation and self-reflection, among other characteristics.

As has been illustrated throughout the conversation thus far, individuals are composite unities of biological, cognitive and/or psychic and social systems and therefore all these different meanings of self-reference apply, jointly and respectively, pertaining to the level of analysis applied. The concept “recursivity” is closely linked to self-reference and is articulated below.

3.7.1.2 Recursivity

Geyer (1995:10) shows that one of the major contributions in first-order cybernetics is the understanding of the “ubiquitous circular processes, in technology, in nature, and in society”; whereas it becomes evident in the progression of this conversation that second-order cybernetics amplifies the understanding of circular reference by using the term “recursivity”. At this point it will suffice to cite Von Foerster’s (2003) explanation of recursivity when he stated that communication is a recursive process. As Luhmann (1996:341) explains, “That means “that it can produce its components only by reference to past and future events of the same kind. We shall call this operational closure”.

With reference to the discussion of cognitive development and the establishment of the “initial conditions” and Associated Systems Theory earlier, it must be reiterated that recursivity and self-reference are the fundamental processes that occur through the (mostly) unconscious interactions that occur between and among the various complex sub-systems within the individual’s autopoietic systems. Brier (2005:357) explains this complexity, which becomes more apparent from a second-order cybernetic perspective:

Second order cybernetics is first of all a project on how cognition, information, and communication arise from living systems’ self organizing activity and thereby organize realities. In the creation of cybernetics of second order, it is the cybernetics dealing with the observer – or, if you like, of the cognitive processes as such – as a cybernetic system, which is important. The realization is that already at the biological system level the observer is self-organized through feedback mechanism, and that the organism’s primary goal is to survive, which means that its goals are internal. Autonomy is essential to biological existence.

It significant to note that this self-organisation on the biological level referred to implies that unconscious communication occurs among the various complex systems that constitute the self-creating (autopoietic) systems within the individual. Brier (2005:357) explains that the

individual self-creates and self-organises on the biological level, with the result that “information is created internally in the system by re-entry” or “some kind of internal change to the system’s own organisation”. This “change” can be described as morphogenesis (the formation of structures from within the system), which occurs also on the *cognitive level* within the individuals’ various complex cognitive sub-systems. In other words, complex (cognitive) sub-systems that are *open*, by the definition of complex systems, are created within other sub-systems and supra-systems, and because biological complex systems are integrated within these various systems, unconscious self-reference and self-organisation occurs.

Hernes and Bakken (2003:1513) explain that information is seen as being created by the individual through the interaction with his or her cognitive framework: “This means that communication happens essentially through a process in which a system (the receiver’s in this Complex Adaptive Systems) interacts recursively with itself, as new information only makes sense in relation to the structures created by previous information gathering”. In other words, instead of considering the “dichotomous relationships” between individuals as “stable entities”, the recursive processes within the entities themselves become the focus (Hernes & Bakken 2003:1513). It is also noted that Hernes and Bakken (2003) consider the epistemological foundations of organisation studies as three distinct categories⁸³ and show that the recursivity-based view “assumes that structure and process interact, and, furthermore, that they both change through mutual interaction”.

This will be further clarified in the discussion of autopoietic theory below. The relation between self-reference and self-organisation is of greater significance at this point.

3.7.1.3 Self-organisation

Self-organisation has been illuminated as a key concept in complexity theory previously. While the discussion earlier is considered sufficient, Geyer (1995:17-18) provides a far more technical explanation in his distinction between cognitivism and connectionism.⁸⁴ However, it will suffice to include the implications of the developments in cognitive science for the study of social systems. Geyer (1995:18) identifies the following two analogies that may exist between self-organisation in cognitive science and in human societies:

⁸³ Hernes and Bakken (2003) divide organisation studies into three categories, namely equilibrium-based, process-based and recursivity-based. Equilibrium-based theory is based on assumptions about stable entities as applied within structural functionalism; process-based theory illuminates the importance of action, communication and context.

⁸⁴ See Geyer (1995:16-18) for a technical description of self-organisation from a cognitive scientific perspective.

- 1) Autonomous systems, as becomes apparent in computer simulations, display recursivity, insofar as interactions are based on their own history, rather than on the intentions of the “programmer” or in the complex adaptive systems of human individuals, external influences; and
- 2) Neural networks, and by assumption, cognitive and/or psychic and social networks, produce emergent phenomena as a result of simultaneous and sequential processes (morphogenesis) that produce patterns or structures, which, in reference to earlier discussions, continuously create various complex sub-systems.

It is important to reiterate that self-organisation occurs consciously, unconsciously and probably subconsciously, through processes such as feedback, reflection, self-observation, and so forth, among the various supra- and sub-systems referred to throughout this conversation. Although the principle of self-organisation is applied broadly in the analyses of systems of various kinds and on various levels within second-order cybernetics, Von Foerster (2003:1) claims that self-organisation does not exist.⁸⁵ For the purposes of this conversation it is accepted that self-organisation does occur within certain systems at certain operational levels, with specific reference to the discussion of complex mental systems and unconscious systems operations within the individual as a composite unity of biological and mental systems. However, it is considered significant to introduce third-order cybernetics at this point as it provides a comprehensive link between second-order cybernetics and Luhmann’s social autopoiesis discussed below.

3.7.1.4 Third-order cybernetics

References to third-order cybernetics have appeared for a number of years, although its theoretical grounding and application have not been explicated. Mingers (1997), Boje and Arkoubi (2005), and Bailey (2007) introduced the concept of third-order cybernetics by reconceptualising Boulding’s hierarchy of complexity for different purposes but with corresponding orientations. The understanding gained from second-order cybernetics is that the external observer can observe the system observing itself: the cybernetics of cybernetics, as Von Foerster (2003) explains.

Bailey (2007:22) argues that there is a need for the extension of sociocybernetic analysis to third-order cybernetics, and argues that “Third-order sociocybernetics entails using a second

⁸⁵ See Von Foerster (2003:211-228) in which he aims to prove his thesis of “the non-existence of self-organizing systems by reduction absurdum of the assumption that there is such a thing as a self-organizing system”.

external observer to observe the first external observer in the process of observing the system observing itself". In brief, third-order cybernetics focuses on the encoding processes and "reveals that in every coding process, there are two separate coding operations, rather than just one operation that is being labelled differently by insiders and outsiders" (Bailey 2007:83). From the understanding of multiplexity (the continuous increase in complexity within the individual as a meta-system) it is reasonable to assume that through the continuous self-creating of complex systems of different kinds, there may actually be more than two encoding operations. Considering that the individual creates primary and secondary representative mental systems (Carlston 1994) and that several other mental system sets have been identified (Mayer 2001) it can be argued that the "communication" between and among various biological and mental sub-systems, whether it occurs through linguistic symbols or other signals, should necessarily entail various forms of (en)coding and various "observers" observing the various "observing systems".

Mingers's classification of self-referential systems (1997) utilised below for the classification of self-referential systems within the individual, provides further insight into the structural coupling, which refers to the consensual domain of interactions when two or more autopoietic systems interact recurrently with each other. This means that structural coupling may lead to interlinked set of interactions between these systems, which may appear to some external observer to be coordinated. As Mingers (1997:305) explains, "Within a consensual domain, the coordinations of action may become recursive; that is, particular coordinations of action may become tokens or symbols of others". Boje and Arkoubi (2005:139) note Boulding as arguing that the sign-representation gives way to more multi-linguaged ways of envisioning human systems. Constraints of space here this do not allow for a more detailed discussion of third-order cybernetics, and the conversation proceeds to Luhmann's social autopoiesis as applicable to the integration of arguments in this chapter and also to the theoretical arguments presented in the next chapter. It is also noted here that the term "cybersemiotics" provides a further link between communication studies and cybernetics that will be explicated in the concluding chapter. The emphasis in the conversation to this point has been placed on the study of the individual from a cybernetic perspective, and it has been shown that the individual as a living system, and as a composite unity of biological and mental systems that communicate on conscious and unconscious levels in various ways, is a self-creating entity. Based on Maturana and Varela's theory of autopoiesis that revolves around the "self" that cannot be abstracted from its biological systems and processes, second-order cybernetics presents challenging opportunities for further studies relating to the multiplexity of individuals insofar as the co-

creation of complex biological and mental sub-systems that are operationally closed are concerned. Further exploration of these theoretical developments goes beyond the scope of this study, and therefore the conversation progresses to Luhmann's controversial application of autopoiesis to social systems. While Maturana and Varela (1980) insist that autopoiesis applies to living systems, in other words to systems that possess some kind of metabolism, Luhmann (1986; 1995; 1996) argues that social systems, such as organisations, are also autopoietic (self-creating) systems. As this study aims to show in the next chapter how individuals co-create NDSOs, the discussion below explores Luhmann's views in this regard and presents further theoretical arguments in support of his views.

3.7.2 Luhmann's social autopoiesis

Luhmann (1986:172) argues that the term autopoiesis has been invented to define life and that its extension to other fields has been discussed unsuccessfully and on the wrong premises. The discussion that follows aims to illuminate the aspects and dimensions of Luhmann's views that provide a direct link between cybernetics and communication theory as a field, which in turn creates the theoretical framework for the discussion in the next chapter.

Luhmann (1986:172) argues that living systems are a particular type of system and that limiting autopoietic theory to life as a mode of self-production or self-reproduction means that it does not attain the level of general systems theory, which enables the study of most systems, such as machines, psychic systems, or social systems. He goes on to say:

However, if we abstract from life and define autopoiesis as a general form of system-building using self-referential closure, we would have to admit that there are non-living autopoietic systems, different modes of autopoietic reproduction, and general principles of autopoietic organization which materialize as life, but also other modes of circularity and self-reproduction.

In pursuit of this objective Luhmann (1986) follows a multilevel approach to establish a general theory of self-referential autopoietic systems, and aims to provide a more concrete level at which living systems (cells, brains, organisms, and so forth) can be distinguished. Figure 3.7 below illustrates Luhmann's classification of types of autopoietic systems.⁸⁶ Luhmann (1986:173) describes this scheme as follows: "This scheme does not describe an internal systems differentiation. It is a scheme not for the operations of the systems, but for

⁸⁶ Luhmann (1995:2) adapted this figure in his book *Social Systems*, although its original form is considered more applicable here.

their observation. It differentiates different types of systems of different modes of realization of autopoiesis”.

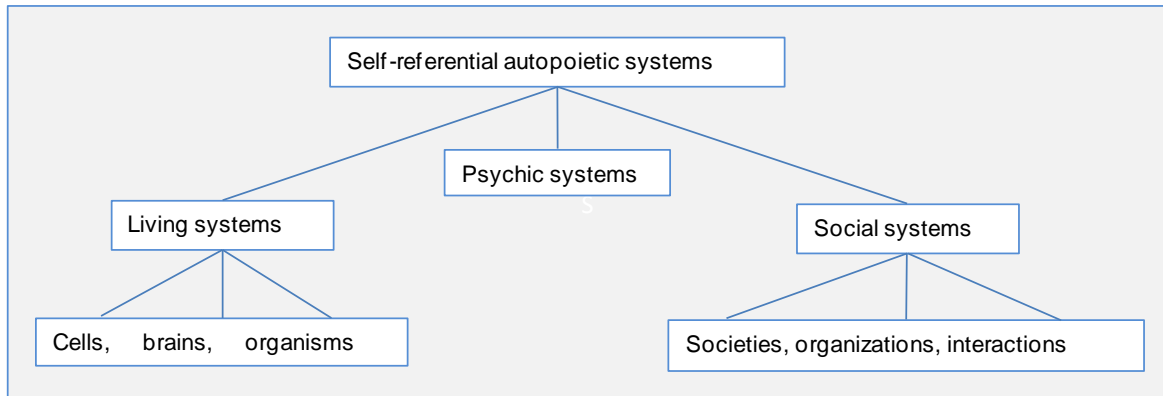


Figure 3.7: Types of self-referential autopoietic systems (Luhmann 1986:173)

Luhmann (1995:59) describes psychic systems as being “constituted on the basis of a unified (self-referential) nexus of conscious states” and social systems as being “constituted on the basis of a unified (self-referential) nexus of communications”. While he excludes all other systems in his application autopoiesis on a social level, it is reiterated here that the understanding of cognitive systems as the co-creation of biological and mental (psychic) systems within the individual is instrumental to the understanding of self-referential autopoietic systems on a social level. Whereas Luhmann (1995:59) clearly articulates “conscious states” in his description of psychic systems, it has been shown earlier in this conversation that unconscious as well as conscious processes and interactions drive individuals’ and therefore social systems’ behaviour. With reference to the discussion of requisite variety as a general systems characteristic (see 3.3.2.7) and in relation to the levels of complexity referred to below, the complexity within complex mental systems within the individual can be considered by way of Kelly’s Personal Construct Theory, which has been extended in Delia’s theory of Constructivism, which for its part aims to measure cognitive complexity within the individual. As the conversation at this point moves to the social level of analysis, further reference to these theories will be made in the next chapter in the discussion of the Cybernetic Tradition of communication, which includes theories of cognition.

Luhmann (1986:173) argues that there is a sharp distinction between life and meaning as different kinds of autopoietic organisation; and that “meaning-using systems again have to be distinguished according to whether they use consciousness or communication as modes of meaning-based reproduction”. He therefore holds that, to meet these requirements, 1) a

psychological and a sociological theory has to be developed and, 2) that the concept of autopoiesis has to be abstracted from its biological connotations. He also remarks that these two tasks are mutually interdependent. In concurrence with these views, Mingers (1997) offers a categorisation of two systems thinking typologies based on the theory of autopoiesis, illustrated in Tables 3.15 and 3.16 below, to show that autopoietic systems of various kinds and on different levels of complexity can be identified. The first typology illustrated in Table 3.15 below is a reconceptualisation of Boulding's original hierarchy (see Table 3.7) that addresses some of the contingencies relating to the articulation of system differentiation, system levels, functional differentiation, and so forth.

It can be seen, in comparison with Boulding's hierarchy, that this table specifies the types of relationships that can be identified on increasing levels of complexity, as Mingers (1997:306-307) states: "Each new level in the hierarchy brings in a new and different type of relation, or relation of a relation, as well as involving those at previous levels".⁸⁷

Table 3.15: Mingers's adaptation of Boulding's hierarchy of complexity

Level	Description	Characteristic	Types of relations	Example
1	Structures and Frameworks	Static, spatial patterns	Topology (where)	Bridge, mountain, table, crystal
2	Single mechanistic systems	Dynamic, predetermined changes, processes	Order (when)	Solar system, clock, tune, crystal
3	Control mechanisms, cybernetic systems	Error-controlled feedback, information	Specification (what)	Thermostat, body temperature system, auto-catalytic system
4	Living systems	Continuous self-production	Autopoietic relations	Cell, amoeba, single-celled bacteria
5	Multicellular systems	Functional differentiation	Structural coupling between cells (Second-order autopoiesis)	Plants, fungi, moulds, algi... <i>(continued)</i>

⁸⁷ See Mingers (1997) for a complete description of his revision of Boulding's framework and his identification of characteristics that distinguish second- and third-order cybernetic properties within certain systems.

Level	Description	Characteristic	Types of relations	Example
6	Organisms with nervous systems	Interaction with relations	Symbolic, abstract relations	Most animals (except e.g., sponges)
7	Observing systems	Language, self-consciousness	Recursive, self-referential relations	Humans
8	Social systems	Rules, means, norms, power	Structural coupling between organisms (third-order autopoiesis)	Families, organisations
9	Transcendental systems			

Source: Mingers (1997:307)

Mingers's classification of self-referential systems, illustrated in Table 3.16 below, clearly shows how autopoiesis can be applied to systems of many kinds and also provides some understanding of how the concept of self-reference can be extended to such systems. In comparison to Luhmann's classification of types of autopoietic systems (illustrated in Figure 3.7), Mingers indicates internal systems differentiation as a point of departure for further theoretical development, which is not pursued in this conversation. While Luhmann (1986) places emphasis on system observation rather than differentiation, he makes reference to similar and other self-referential systems, such as self-simplifying, self-socialising, self-substituting, self-presenting, and self-realising systems in his book *Social Systems* (1995), which are not described or discussed here.

Table 3.16: A classification of self-referential systems

A classification of self-referential systems			
Level	Type	Characteristic	Example
1	Self-referring systems	Structural reference to self by position of symbolism (pictorial or linguistic)	This is a sentence', Escher's 'Drawing Hands', Magritte's 'The Treason of Images'
2	Self-influencing systems	Dynamic systems that involve circular causality and causal loops	Size and birth rate of population, inflation, the nuclear arms race
3	Self-regulating systems	Maintenance of a particular variable at a particular level	Thermostat, body temperature
	Self-sustaining systems	All parts of the system are necessary and sufficient for operation of the whole, but to not produce each other	Gas pilot light in heating boiler, autocatalysis
4	Self-producing systems (autopoietic)	Autonomy: the system both produces and is produced by itself	Cell, computer model of autopoiesis, <i>Nomic</i> (self-producing legal game)
5	Self-recognising systems	Systems that are able to recognise their own parts and reject others	Immune system within an organism
6	Self-cognizing systems	Systems that generate cognitive identity through recursive neuronal activity	Animals with nervous systems interacting symbolically
7	Self-conscious systems	Able to interact with descriptions of themselves. The observer observing the observer	A person saying 'I acted selfishly today'

Source: Mingers (1997:310)

Luhmann (1986:174) argues that the self-reference of autopoietic systems applies to the production of other components as well: “Even elements, that is last components (individuals), which are, at least for the system itself, undecomposable, are produced by the system itself. This applies to elements, processes, boundaries and other structures, and last but not least to the unity of the system itself”. He identifies communications as the basic elements of the social system, and says that:

Social systems use communication as their particular mode of autopoietic reproduction. Their elements are communications which are recursively produced and reproduced by a network of communications and which cannot exist outside such a network. Communications are not 'living' units, they are not 'conscious' units, they are not 'actions' (Luhmann 1986:174).

According to Luhmann (1986:174-175) the unity of communications requires the synthesis of three selections, namely 1) information, 2) utterance, and 3) understanding (including misunderstanding), which is produced by a network of communication and not by the inherent quality of information or by language, as he states that:

The synthesis of information, utterance and understanding cannot be preprogrammed by language. It has to be recreated from situation to situation by referring to previous communications and to possibilities of future communications which are to be restricted by the actual event. This operation requires self-reference. It can in no way use the environment. Information, utterances and understandings are aspects which for the system cannot exist independently of the system; they are co-created within the process of communication ... The communicative synthesis of information, utterance and understanding is possible only as an elementary unit of an ongoing social system.

Luhmann (1986:175) reiterates that the elementary, decomposable units of the social system are communications of minimal size, and that this minimal size cannot be determined independent of the system. He goes on to say that: "Communication includes understanding as a necessary part of the unity of its operation. It does not include the acceptance of its content" (Luhmann 1986:176). Luhmann (1986:177) addresses the relation between action and communication, and argues that communication is not action, as it contains meaning that transcends the utterance or transmission of messages alone. He holds that the perfection of communication implies understanding and argues that understanding is not part of the activity of the communicator and that it therefore cannot be attributed to him, and he states: "Therefore, the theory of autopoietic social systems requires a conceptual revolution within sociology: the replacement of action theory by communication theory as the characterization of the elementary operative level of the system."

It is clear that Luhmann makes his observation from a sociological perspective, and while he identifies communication theory as key to the development of social autopoiesis as general theory, he does not identify specific communication theory that explains how social systems self-create through communications. The discussion of communication theory as a field in the next chapter provides a theoretical framework and identifies specific communication theories that offer explanations of how individuals as autopoietic systems co-create social autopoietic systems such as NDSOs. The key consideration from a second-order cybernetic (autopoietic) perspective listed below provides some links to the discussions in the chapters that follow.

3.7.3 Key considerations for the study of autopoietic systems

- The observer cannot be separated from the observation.
- Self-creating systems create the elements that create the system, individually and jointly.
- Self-referential systems are operationally closed.
- Individuals are composite unities of self-creating (autopoietic) biological and mental systems.
- Luhmann's introduction of a communication synthesis that is created through the unity of the selections of information, utterance, and understanding provides a new theoretical framework for the study of communication from a second-order cybernetic (autopoietic) perspective.

The general conclusions to this chapter are presented below.

3.8 CONCLUSION

The cybernetic perspective on the study of individuals in this chapter aimed to provide a comprehensive meta-theoretical framework for the description and further analysis of the phenomenon under investigation in this study, namely the NDSO.

Contrary to previous perceptions that cybernetics was a mechanistic approach, most applicable to non-living systems, it has been shown that individuals are operationally closed systems, and therefore that certain properties and characteristics of closed systems can be applied to the study of individuals. It is further evident from this conversation that the study of communication involves various definitions of communication, including the transmission of signals as it occurs in non-linguistic communication between biological and mental (psychic) systems within the individual as a composite unity of biological and mental systems.

The discussion of General Systems Theory aimed to show that systems properties and characteristics that have been applied mainly to social systems, such as families or organisations in previous studies, apply to sub-systems within the individual as a composite unity of biological and mental systems as well. The identification of complexity within a general systems framework was extended in the discussion of complexity theory as it developed within the natural sciences. It has been established that individuals as composite unities of biological and mental systems self-create complex systems that extend to multiplexity. Associated Systems Theory provided a link between cybernetics and

psychoanalysis, which contributed to the understanding that many mental systems can be identified within the individual and that unconscious communication between and among biological and mental systems drives individual behaviour. It has therefore been argued that the non-linear relationships among various sub-systems within the individual mean that individual behaviour cannot be explained or predicted with certainty. However, with reference to McCulloch's comment that causality is superstition, and to Ashby's observation that the objective is not to know the whole system, but that partial knowledge contributes to overall practical purposes, it is accepted in this study that the multiplexity of systems within the individual constitutes the requisite variety that gives rise to indeterminable relations among systems, sub-systems and system elements. This understanding in itself explains the unique system properties and characteristics within individuals, and removes the generalising imperative associated with classical science.

From a second-order cybernetics perspective, the role of the observer became apparent with the introduction of its key concepts, namely self-reference, recursivity, and self-organisation. Maturana and Varela's theory of autopoiesis with its focus on living systems and the biology of cognition directed the focus towards micro levels of analysis in the study of individuals as composite unities of biological and mental systems. Self-reference indicates that the ego-system is the dominating mental system within the individual, while recursivity explains that all system operations within individuals occur through communication in some or other form. While theorists like Von Foerster insist that self-organisation does not exist, it is apparent that spontaneous order seems to emerge in certain systems because of the (self-creating) individual's drive towards the operationally closed systems' reduction of entropy (uncertainty) and the prevention of equilibrium (system death). The introduction of third-order cybernetics provided further insight into the creation of observing systems in the process of observing systems observing themselves, which may occur among systems within the individual, or within social systems. While second-order cybernetics and autopoiesis encompassed the study of the individual in particular, Luhmann's application of autopoiesis to non-living systems, such as social systems, and his identification of communications as the key elements in the creation of social systems, directs the theoretical discussion in the next chapter towards the exploration of communication theory as a field with the purpose of identifying and discussing specific communication theories that explain how individuals who create themselves co-create NDSOs. Luhmann's claim that the unit of communications requires a synthesis of three selections, namely information, utterance, and understanding, forms the point of departure for the conversation in the next chapter.

CHAPTER 4

THE SELF-CREATION OF PSYCHIC AND SOCIAL SYSTEMS THROUGH COMMUNICATION

4.1 INTRODUCTION

The definition and explanation of NDSOs in Chapter 2 directed the theoretical inquiry in this study towards the cybernetic meta-theoretical perspective, which was developed extensively in the previous chapter. The term “multiplexity” used within Network Theory suggested the requirement for a theoretical framework that enable multilevel analysis, as recommended by Van Dijk (2010). Chapter 3 concluded with Luhmann’s application of Maturana and Varela’s theory of autopoiesis, which he argues is applicable also to social systems. Luhmann (1986; 1995; 1996) argues that communication(s), and nothing but communication(s), create social systems. He also argues that the unity of communications is established through the synthesis of three selections, namely information, utterance, and understanding, which he claims is a new perspective on the understanding of communication (Luhmann 2002:158).

The primary purpose in this chapter is to explore how communication creates social systems such as NDSOs, by focusing on some of Luhmann’s arguments about communication, language and meaning, in particular, from a second-order cybernetic perspective; and to relate these arguments to existing theories within communication theory as a field. The conversation commences with a conceptualisation of the various dimensions of communication(s) as the phenomena under investigation in this chapter, as it has been articulated within communication theory as a field. Bearing in mind that Luhmann’s seminal work on social autopoiesis is within the domain of sociology, the conversation in this chapter aims to connect his second-order cybernetic (autopoietic), and hence constructivist epistemological arguments about communication to communication theory as a field of study for the purpose of providing a novel theoretical explanation for the existence and sustenance of NDSOs.

Blute (2002) indicates that Luhmann's theorising has not yet been integrated into social studies, and this observation is confirmed insofar as only Krippendorff (1993; 1996; 2007) appears to apply second-order cybernetics in discussions on communication theory within communication theory as a field. However, he makes more frequent references to Von Foerster, Maturana and Varela rather than to Luhmann.

Some of the key concepts identified within the discussion of second-order cybernetics, namely self-reference, recursivity, and self-organisation, are explored further in relation to Luhmann's selections in the communication synthesis. The discussions in this chapter aim to show that communication is a completely self-referential phenomenon which occurs fundamentally within the individual where understanding completes any and every communication synthesis that creates further unities of synthesis between information, utterance and understanding within other individuals. This approach towards the study of communication therefore implies that meaning in itself is also completely self-referential and thus that, while meaning constitutes social systems that are represented in individuals' and social systems' actions, it does not represent shared understanding. The chapter diagram below indicates the flow of the conversation in this chapter and is discussed in brief with the purpose of orienting the reader.

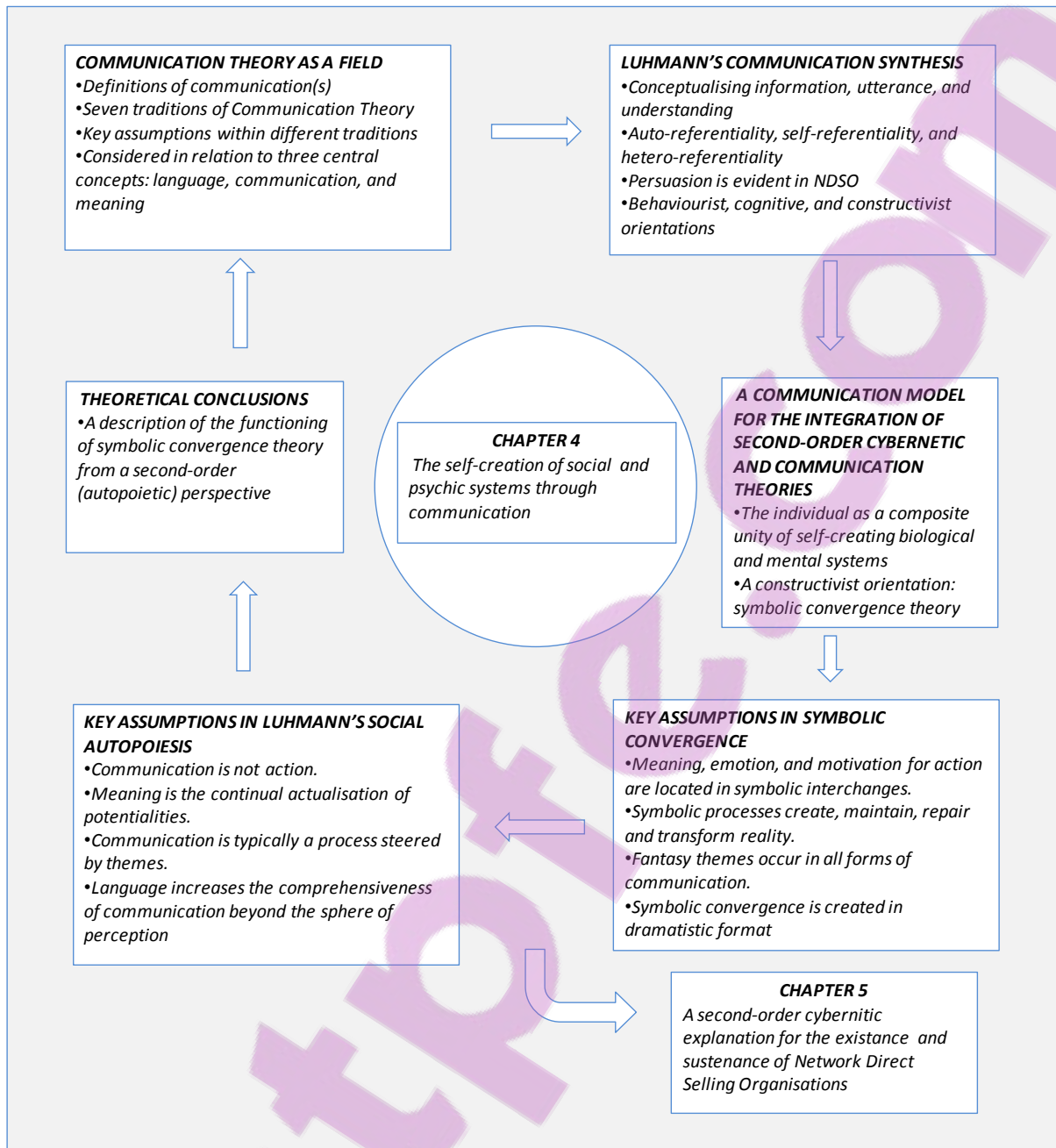


Figure 4.1: Chapter diagram

4.2 OVERVIEW OF THE CHAPTER

The chapter diagram aims to show that the conversation in this chapter presents arguments developed from Luhmann's autopoietic (second-order cybernetic) perspective on the creation of social systems such as NDSOs. The definition of communication theory sketch the background for the conceptual model, which is used as a point of reference throughout the discussions in the remainder of the chapter. The key arguments relating to communication(s), language, and meaning are developed

from a second-order cybernetic perspective, with specific application of Luhmann's arguments relating to social systems, and are related to persuasive communication. It was shown in the previous chapter that second-order cybernetics represents constructivist epistemology and thus a rejection of objectivity, with the emphasis on the observer that is included in the observation at all times. The selection of communication theories that are related to the descriptions of the selections of information, utterance, and understanding aims to provide further insight into how these selections occur. It is indicated throughout the discussions in this chapter that existing communication theory addresses many of the topics Luhmann identifies. Symbolic convergence theory is selected because of its constructivist orientation and because it is a broad theory that can be applied in conjunction with social theory. The conversation concludes with a description of Bormann's theory of symbolic convergence from Luhmann's second-order cybernetic perspective, which is used to show how communication syntheses manifest as fantasy themes and rhetorical visions that create NDSOs across a vast diversity of cultures, economies, and multiple social environments. NDSOs have a significant impact on many other social systems, since they involve the commercialisation of personal and even family relationships and therefore the analysis of communication in this chapter uses a social theoretical perspective on the study of communication that can be integrated with specific communication theories that support its premises. It was shown in the previous chapter that Niklas Luhmann was the social theorist who developed Maturana and Varela's theory of autopoiesis into a theory of social autopoiesis. A relatively small amount of Luhmann's work has been translated into English in more recent years, and his theorising has not yet been explored to any significant extent within communication theory as a field. The conversation therefore commences with a reconstruction of Luhmann's intellectual biography with the purpose of orienting the reader and contextualising his work within a social scientific frame of reference.

4.3 AN INTELLECTUAL BIOGRAPHY OF LUHMANN

Niklas Luhmann is remembered in newspapers and magazines in 1999 as the most important social theorist of the twentieth century, and yet he is virtually unknown among professional social scientists (Bechmann & Stehr 2002:67). Most of his work has not yet been translated into English and his most significant publication about communication specifically, namely *Soziale Systeme: Grundriß einer allgemeinen Theorie* (1984) was published as *Social Systems* in English only in 1995. This voluminous text is the central source in the discussion of the social theory of communication in this chapter. In reference to this publication Bechmann and Stehr (2002:67) say: "This work is still the most concentrated, abstract, and – if one takes the trouble to work through it – also most rewarding presentation

of the theoretical core". It is reiterated here that an intellectual biography such as this cannot encompass a thorough description of Luhmann's work and that the text *Social Systems* in itself cannot be explored and deliberated on in a single study. The application of Luhmann's theorising in this chapter is therefore a mere introduction to his thinking within the communication framework of this study⁸⁸.

Luhmann was born in Lüneburg, Germany, on 8 December 1927. After graduating from the Johanneum school in 1943 he was taken as a prisoner of war by American troops in 1945 (Baecker 2005). He studied law in Freiburg and entered public administration to work as an administrative lawyer in Hanover for 10 years (Bechmann & Stehr 2002:67). When he received a scholarship to Harvard in 1962 he studied under Talcott Parsons for a year. However, Luhmann soon emerged as the leading proponent of a new version of systems theory, as Alan and Bohman (1998:3) state:

Luhmann thought that the previous attempts to use systems theory in the social sciences applied cybernetic concepts too directly and suffered from the residual normative orientations of Durkheim and Parsons, which he, like structuralists and post-structuralists, denounced as so much 'old European humanism'. To be rigorous and consistent, systems theory had to drop all reference to actors and their self-interpretations, which were nothing but 'physical systems' that form part of the environment for other systems. In this way, systems theory could replace the functionalist account of social integration through norms, with the anonymous integration of interdependent parts and wholes and be generally applicable to every level of social analysis.

Alan and Bohman (1998:3) explain further that Luhmann denies that modern societies are integrated in Parsons's functionalist sense because he argued that there was no central or organising system, whether state or society, but only interdependencies between systems. From this stance systems can only be formally defined in terms of their complexity and their operational closure, as discussed in the previous chapter. Lee (2000:320) agrees, saying that Luhmann attempts to describe fundamental features that are common to *all* social systems that not only have similar structures but also all operate through communication, hence his assertion that society *is* communication.

Luhmann has published more than fifty books and four hundred articles and applied his sociological systems theory to areas including law, science, religion, economics, politics, love, art, and ecology (All Experts Encyclopaedia 2010). Bechmann and Stehr (2002:68) note that Luhmann makes reference to the operative logic of George Spencer Brown and radical constructivism in almost all his work. The selection of his social theory for the

⁸⁸ See Baecker (2002) for a biography within the field of sociology.

purposes of this study is specifically related to his second-order cybernetic (autopoietic) and constructivist stance. Lee (2000:320) summarises his perception of the origins of Luhmann's ideas as he states:

Luhmann revises Parsons's theory of functionally differentiated social systems by incorporating major ideas from five different sources. (1) His sense of logic, the "logic laws of forms," is borrowed from the mathematician George Spencer-Brown. Instead of focusing on understanding the nature objects, Luhmann looks at the nature of observing and of the need for drawing distinctions. (2) He borrows the principles of self-reference and autopoiesis from the cognitive biologists Humberto Maturana and Francesco Varela. A system is no longer thought to depend on its environment. Rather, a "closed" social system creates itself and its environment. (3) Luhmann's practical concern with the problems of consciousness, complexity, space, and time bears the mark of Edmund Husserl's phenomenology. (4) The recurrent theme of an emerging "world society" that is transcending former cultural and political boundaries follows the thought of G.W.F. Hegel. (5) Finally, Luhmann adopts a pragmatic, open-ended, nonessentialist philosophy that he identifies as social constructivism. Luhmann's "radical constructivism" is uniquely influenced by the work of Heinz von Foerster and Humberto Maturana, and should not be confused with the more familiar "social construction of reality" paradigm popularized by Peter Berger and Thomas Luckmann (1967).

Luhmann's social theory provoked criticism from Habermas (1970), who argued that the lack of restriction on the scope of Luhmann's explanations opened it to criticism because his analysis could not recognise the coordinating effects of ordinary language communication within modern institutions (Alan & Bohman 1998:4). Luhmann's ideas and theorising developed over more than three decades and the presentation of his ideas throughout this chapter shows that he has expressed his views on language, communication, and meaning in ways that are related directly to the coordinated management of meaning.

At present Luhmann's theorising is most generally deliberated within the fields of sociology, systems theory, semiotics, and pedagogy, and often by scholars who are German-speaking, such as, among others, his student Baecker⁸⁹ (2001; 2005; 2007; 2008), Vanderstraeten⁹⁰ (2000), Leydesdorff⁹¹ (2000), Brier⁹² (1996; 2005), Qvortrup⁹³ (2005), Mingers⁹⁴ (2002), Lee⁹⁵ (2000), and Krippendorff⁹⁶ (1993). As Bechmann and Stehr (2002:75) state:

⁸⁹ Baecker's publications include titles such as *Why Systems?* (2001), *Niklas Luhmann* (2005), *Systems, Network, and Culture* (2008) in which he identifies and discusses some of the key threads in Luhmann's ideas. He also assisted in the translation of the key text *Social Systems* (1995) that is referred to throughout the discussions in this chapter.

⁹⁰ In his paper *Autopoiesis and socialization: on Luhmann's reconceptualization of communication and socialization* Vanerstraeten (2000) discusses communication as a three-part unity and refers to the work of Luhmann, Von Foerster, Maturana and Varela in his discussion of socialisation from Luhmann's perspective.

⁹¹ Leydesdorff (2000) provides a significant link to network theory that was described in Chapter 2 and is articulated further in this chapter. He compares the work of Luhmann to those of Giddens and Habermas in his paper titled *Luhmann, Habermas, and the theory of Communication* that referred to later in this chapter.

⁹² Brier (1996; 2005) makes a significant contribution to the understanding of Luhmann's theorising in his discussions on cybersemiotics, although his work in these papers is mainly based on the work of Von Foerster. He says that "Luhmann has developed a generalized version of the second-order cybernetic understanding of perception, generation and communication of information through a generalization of the concept of autopoiesis."

⁹³ Qvortrup (2005) presents a detailed biographical sketch of Luhmann's work related to education in his paper titled *Society's Educational System – an introduction to Niklas Luhmann's pedagogical theory* and he discusses

Luhmann's theory of society, it could be argued, offers a way that leads, through the latest scientific methods and on a strictly theoretical basis, to a rich theory of modern society. Luhmann opens up links for sociology with other sciences and enables him to integrate a flow of new research into his theory.

The exploration of Luhmann's theorising about communication (specifically) in this chapter considers some of the central themes in the texts that were accessible and that addressed communication as the subject matter in particular during the time that this study was conducted. The specific themes that are identified primarily from his work *Social Systems* (1995) are systems and function, meaning, communication and action, and self-reference and rationality. It is further reiterated that the purpose of this chapter is to develop a theoretical explanation for the existence and sustenance of NDSOs and not to critically assess or deliberate Luhmann's theorising. It is reiterated again that Luhmann's discussions can also be linked to specific communication theories, as the discussions in this chapter aim to show, and that it is not the purpose to (mis)represent any expertise insofar as his extensive work over more than three decades is concerned.

It is imperative to state at this point that the considerations regarding language that were articulated as the preface to the theoretical discussions in the previous chapter also apply to the discussions in this chapter. It has to be considered that Luhmann's work was written in German and that in terms of linguistic relativity, some of the meaning is necessarily lost in translation and, as such, is subject to criticism. As it is the case with the work of most prominent social theorists such as Giddens, Habermas, Hintikka, and Luhmann, among many others, different interpretations have been applied. With specific reference to Luhmann, it is noted, for example, that Leydesdorff (2000) says Luhmann's theory sided with symbolic interactionism, while Luhmann (1995:108) explicitly states that "'Symbolic interactionism' is equally unsatisfactory". Bechmann and Stehr (2002:72) refer to Luhmann's selections of information, transmission and comprehension, as another example, while Luhmann (1995:139) states that the metaphor of transmission is "unusable because it implies too much ontology". Further to the considerations revolving around language, and

Luhmann's text *Social Systems* (1984; 1995) in particular, with specific reference to the educational system in Southern Denmark.

⁹⁴ Mingers (2002) deliberates the question whether social systems can be autopoietic and discusses Luhmann's theorising in depth. In his paper *Can Social Systems be Autopoietic? Bhaskar and Giddens' Social Theories* Mingers (2004) relates Luhmann's theorising to the broader meta-theoretical perspective of second-order cybernetics and distinguishes Luhmann's theorising from Bhaskar's and Giddens's. His significant contribution to system studies is noted.

⁹⁵ Lee (2000) presents a comprehensive discussion on Luhmann's final work that was published in German before his death. It is noted that, according to Bechmann and Stehr (2002:67), the publication of Luhmann's *The Society of Society* (1997) contains no new subjects but is rather a completion or recapitulation of the key themes in all his work.

⁹⁶ Krippendorff (1993) makes reference to Luhmann in his discussion of communication metaphors, although it is noted here that he mainly refers to Maturana in his discussions on second-order cybernetics and communication. See Krippendorff (1993; 1994; 1996).

relating in particular to complex theoretical discussions such as many of those included in this thesis, it can be observed that Heidema and Labuschagne⁹⁷ (2006) discuss two alternative paradigms for the choices presented within language *ipso facto*, namely language as prison and language as tool. It can be said that the “language as prison” metaphor applies to the discussions on Luhmann’s theorising in this chapter insofar as much of its meaning is captured within his use of language and the observer’s ability to express the understanding accomplished in its reading. On the other hand, the “language as tool” metaphor also applies to the discussions in this chapter, because Luhmann provides a vocabulary that enables the expression of new ideas about communication in this study. With reference to the term “inter-referentiality” that is articulated later in this chapter in relation to other terms, it is stated here that the application of Luhmann’s concepts in this chapter are conceptualised in relation to each other and also in relation to existing communication theory as these concepts are interpreted for the purposes of this study.

The section that follows starts the theoretical discussions in this chapter by considering definitions of communication(s) from within communication theory as a field and provides a theoretical frame of reference for the discussions on Luhmann’s theorising about communication in the sections that follow.

4.4 CONCEPTUALISING COMMUNICATION(S)

The concepts “communicating” (verb) and “communication(s)” (noun) require frequent clarification, and specific articulation, throughout this conversation. It is shown further below, for example, that communications are not necessarily actions in Luhmann’s argument, although it has to be accepted that *communicating* is an action of some kind, whether it is conscious or unconscious, intentional or unintentional. It is also considered relevant to note here that in terms of Luhmann’s description of communication, any form of symbolic or unconscious interchanges, such as energy resonance between systems that cannot be articulated as a form of utterance or does not imply understanding, does not meet the criteria for the accomplishment of such a synthesis. With the focus on the creation of social systems in this chapter, it is accepted that the discussions of these key concepts considers the communication synthesis above all, although the interpretations and conclusions in the following chapter will apply the broader cybernetic framework in which the transfer of signals and other forms of information are considered as instrumental to the communication synthesis to a significant degree.

⁹⁷ See Heidema and Labuschagne (2006) for a comprehensive discussion on the dichotomy of alternatives identified by Hintikka (1997).

Based on the understanding that Luhmann discusses communications as the elementary units of social autopoietic systems, it is clear that the emphasis falls on communications rather than on the act of communicating. It can be said that the *communications* become the object of analysis, while *communicating* is an ongoing activity directed by individual and social systems on a continuous basis which can only be analysed as it occurs at any given time. Luhmann dedicates a chapter in his work *Social Systems* (1995) to his explanation of communication and action in which he argues that communication is not action as such. His theorising on this topic is utilised later in this conversation to present key arguments relating to communication(s) as the fundamental processes through which social systems such as NDSOs are created. As a point of departure, some definitions of communication within communication theory as a field may shed some light on the multiplexity of this concept in itself and Dance's (1970) distinction among various definitions of communication(s) provides some clarity in the section here below.

4.4.1 Definitions of communication(s)

Dance (1970) identifies three points of conceptual differentiation in the definition of communication: 1) the level of observation, 2) the presence or absence of intent on the part of the sender; and 3) the normative judgment of the act (good or bad; successful or unsuccessful, and so forth). In reference to the levels of observation, he states: "The definitions [of communication] reflect interest in different levels of systems and yet distinct system levels will include wide variations in behavioural fields and probably in the number and interpretation of observations and resultant theory construction" (Dance 1970:208). Table 4.1 below presents a summary of fifteen conceptual components which Dance (1970) isolated from a review of 95 definitions of communication.

Emphasis	Definitions of communication	Source
Linking/ Binding	Communication is the process that links discontinuous parts of the living world to one another.	Ruesch (1957)
Commonality	It (communication) is a process that makes common two or several what was the monopoly of one or some.	Gode (1959)
Channel/ Carrier/ Means/ Route	(pl.) the means of sending military messages, orders, etc. as by telephone, telegraph, radio, couriers.	The American College Dictionary (1964)
Replicating memories	Communication is the process of conducting the attention of another person for the purpose of replicating memories	Cartier & Harwood (1953)
Discriminative Response/ Behaviour modifying/ Response/ Change	Communication is the discriminatory response of an organism to a stimulus; So, communication between two animals is said to occur when one animal produces a chemical or physical change in the environment (signal) that influences the behaviour of another...	Stevens (1950) Thayer (1967)
Stimuli	Every communication act is viewed as a transmission of information, consisting of discriminative stimuli, from a source to a recipient.	Newcomb (1966)
Intentional	In the main, communication has as its central interest those behavioural situations in which a source transmits a message to a receiver(s) <i>with conscious intent to affect the latter's behaviours</i>	Miller (1966)
Time/ Situation	The communication process is one of transition from one structured situation-as-a-whole to another, in preferred design.	Sondel (1956)
Power	... communication is the mechanism by which power is exerted.	Schacter (1951)

Source: Dance (1970)

The reason for the inclusion of this summary of definitions is to show the kind of conceptual differentiation that has been applied in early studies of communication, rather than to identify any definition that corresponds with the orientation in this chapter. It was stated earlier that, for the purposes the conversation in this chapter, communication is defined as the co-creation of meaning between and among individuals (as composite unities of biological and mental systems) through symbolic interchanges of various kinds which create social systems. Littlejohn and Foss (2008:3) state that “a definition should be evaluated on the basis of how well it helps scholars answer the questions they are investigating”, from the position that definitions are tools that should be used flexibly. It should therefore be noted that all definitions used in this conversation are flexible and are related to the specific topic of

each discussion. It is also noted that a discussion on communication metaphors⁹⁸ could further enhance the understanding of different definitions of communication, but that it would lead the conversation astray at this point.

Craig's taxonomy of communication theory as a field of study (1999) is frequently utilised in communications studies, and cited by key sources on communication theory such as Littlejohn and Foss (2008), Griffin (2008), and Miller (2009). The brief discussion of this taxonomy below aims to provide connection points between Luhmann's arguments about communication and existing communication theory that is referred to during the progression of this conversation.

4.5 CRAIG'S TAXONOMY OF COMMUNICATION THEORY AS A FIELD OF STUDY

Craig's publication of *Communication Theory as a Field* (1999) can be seen as a seminal work in the field of Communication Theory. He makes it apparent from the outset of his conversation that Communication Theory is not a unified field, and that it is constituted by many "undecidables", which Von Foerster (2003) refers to as follows: "communication theorists apparently neither agree or disagree about much of anything" (Craig 1999:119). It is therefore accepted in this conversation that the descriptions of the different communication problems, metadiscursive commonplaces and challenges to these are to be seen as points of departure and not as fixed theoretical stances. In pursuit of Craig's ambition to realise Communication Theory as a field, the conversation in this chapter approaches Communication Theory within a "dialogical-dialectical disciplinary matrix" and utilises the different sets of commonly understood assumptions for the purposes of productive argumentation, and also to provide sound theoretical arguments for the explanation of the phenomena under investigation in this study.

Craig (1999:120) describes his scheme of the field of Communication Theory, which provides an understanding of orientations and theorising within the different traditions of Communication Theory as follows:

In a tentative scheme of the field, rhetorical, semiotic, phenomenological, cybernetic, socio-psychological, sociocultural, and critical traditions of communication theory are distinguished by characteristic ways of defining communication and problems of communication, metadiscursive vocabularies, and metadiscursive commonplaces that they appeal to and challenge.

⁹⁸ See Krippendorff (1993) for a comprehensive discussion on major communication metaphors and some constructivist reflections of their use.

Littlejohn and Foss (2008:34) say that these traditions can best be thought of as scholarly communities drawn together by similar assumptions about communication that sometimes stand in opposition to each other and other times overlap. Craig (1999) suggests that the broad range of ideas within the nominal scope of communication theory enables the integration of different considerations in argumentation, as this conversation aims to demonstrate. Table 4.2 presents an adaptation of Craig's scheme, which shows the metadiscursive commonplaces and challenges within the seven different traditions of Communication Theory.⁹⁹

Table 4.2: Seven Traditions of Communication Theory

APPROACHES TO THE CONCEPT OF COMMUNICATION			
Tradition	Communication theorised as:	Metadiscursive commonplaces	Challenges metadiscursive commonplaces such as:
Semiotic	Intersubjective mediation through signs	Understanding requires common language; omni-present danger of misunderstanding	Words have correct meanings & stand for thoughts; codes & media are neutral channels.
Cybernetic	Information processing	Identity of mind and brain; value of information and logic; complex systems can be unpredictable	Humans and machines differ; emotion is not logical; linear order of cause and effect
Sociocultural	(Re)production of social order	The individual is a product of society; every society has a distinct culture; social actions have unintended effects	Individual agency and responsibility; absolute identity of self; naturalness of the social order
Sociopsychological	Expression, interaction and influence	Communication reflects personality; beliefs & feelings bias judgments; people in groups affect one another	Humans are rational beings; we know our minds; we know what we see <i>...(continued)</i>

⁹⁹ As the purposes of this conversation is not to deliberate on Communication Theory as a field in itself, a more detailed comparison between applications and purposes of these traditions can be found Craig (1999).

APPROACHES TO THE CONCEPT OF COMMUNICATION			
Tradition	Communication theorised as:	Metadiscursive commonplaces	Challenges metadiscursive commonplaces such as:
Phenomenological	Experiences of otherness; dialogue	All need human contact; should treat others as persons; respect differences; seek common ground	Communication is a skill; the word is not the thing; facts are objective and values subjective
Critical	Discursive reflection	Self-perpetuation of power and wealth; values of freedom, equality & reason; discussion produces awareness, insight	Naturalness & rationality of social order; objectivity of science and technology
Rhetorical	The practical art of discourse	Power of words; value of informed judgment; improvability of practice	Mere words are not actions; appearance is not reality; style is not substance; opinion is not truth

Source: adapted from Craig (1999:133)

A brief description of each tradition aims to position the theoretical assumptions in this chapter within the broader field of Communication Theory. The sequence of the discussion is indicative of the theoretical direction of this conversation, which commences with the semiotic tradition.

4.5.1 The semiotic tradition

Communication theorised within the semiotic tradition “explains and cultivates the use of language and other sign systems to mediate between different perspectives” (Craig 1999:136). Theories of language, discourse, interpretation, non-verbal communication, culture and also media can be identified within this tradition. Craig (1999:136) summarises the applications of this tradition by stating: “Problems of communication in the semiotic tradition are primarily problems of (re)presentation and transmission of meaning, of gaps

between subjectivities that can be bridged, if only imperfectly, by the use of shared systems of signs”.

Symbols other than language are of particular significance in this conversation, and provide further insight into the understanding of the multiplexity of individuals as composite unities of biological and mental systems, as discussed in the previous chapter. Well-known studies on non-verbal communication, such as those conducted by Mehrabian (1972) and Birdwhistell (1985), have established that the vast majority of communication consists of non-verbal information, which supports “Locke’s sceptical argument against the commonplace assumption of intersubjective understanding” referred to by Craig (1999:137). The semiotic tradition is considered of fundamental importance to the understanding of communication(s) as the basic elements of social autopoietic systems that involve far more than linguistic interchanges or even intentional communication, as Luhmann (1995) argues.

In accordance with theorists such as McLuhan (1964), theories within the semiotic tradition make it clear that “codes and media of communication are not merely neutral structures or channels for the transmission of meanings, but have sign-like properties of their own (the code shapes the content and the medium itself becomes a message, or even *the* message” (Craig 1999:137). Griffin (2009:48) agrees that language structures individuals’ perception of reality, while Littlejohn and Foss (2008:34) views semiotics as a way of looking at communication and the powerful impact of signs on almost all perspectives employed in communication theory. The fundamental consideration is that, with reference to the discussion on first-order cybernetics and information theory in the previous chapter, signs and symbols, of which language forms only a part, constitute part of the information that co-creates the synthesis of communication. The close relationship between the semiotic and cybernetic traditions is therefore apparent. Symbolic interactionism, as one of the central theories in this conversation, is classified within the semiotic tradition and is utilised to provide the link between these two traditions in this chapter. The section on language also aims to provide further links between the semiotic, cybernetic and sociocultural traditions in particular by illuminating the complexity in the study of symbolic interchanges.

Cybernetics has been discussed extensively in the previous chapter, and therefore locating it as a tradition within communication theory is for the purpose of identifying its focus within the field of communication studies, rather than to offer additional insight at this stage. The integration of cybernetics (as a meta-perspective) and the communication theories applied in this chapter is finalised in the concluding chapter of this study.

4.5.2 The cybernetic tradition

The origin of modern communication theory was traced to cybernetics in the previous chapter. Craig (1999:141) captures the essence of cybernetics as it relates to the overall purposes of this study:

For cybernetics, the distinction between mind and matter is only a functional distinction like between software and hardware. Thought is nothing more than information processing, and so it makes perfect sense to say that individual thought is “intrapersonal” communication and that groups and organizations also think, whole societies think, robots and artificial organisms will eventually think. ...Cybernetics, then, is also interesting and sometimes implausible from a commonsense view because it points out surprising analogies between living and nonliving systems, challenges commonplace beliefs about the significance of consciousness and emotion, and questions our usual distinctions between mind and matter, form and content, the real and the artificial.

These observations support the arguments presented in the previous chapter, which challenged notions of linear cause and effect and showed that communication processes can be multiplex and can occur unconsciously to a substantial and indeterminable extent. It is therefore significant to note that Littlejohn and Foss (2008) discuss the theory of cognitive dissonance, which is a central theory on *persuasion*, within this tradition, rather than within the sociopsychological tradition. They argue that cognitive dissonance falls within consistency theory and that, based on the concept “homeostasis” which is found within cybernetics, individuals obtain balance through the cognitive system as a primary tool (Littlejohn & Foss 2008:78). Although this theory is not discussed in depth in this chapter, it is relevant to note that the application of complexity theory to mental systems within the individual corresponds with the allocation of cognitive dissonance within the cybernetic tradition and leaves room for further developments in this direction. As will be argued in the next chapter, persuasion necessarily means self-persuasion, or its derivative referred to as counter-attitudinal advocacy, which relates to individuals’ behaviour within social autopoietic systems such as NDSOs. It is worth noting here that network theory is categorised within the cybernetic tradition and will be applied in the theoretical explanation for the continued existence of NDSOs in the final chapter.

The cybernetic tradition is inextricably linked to the other traditions not only by its explicit focus on the interrelatedness of systems and system elements, but also because systems of all kinds are ubiquitous. The creation of social systems and particularly self-referential systems within social systems, as theorised within the sociocultural tradition, provides a specific link between the cybernetic and sociocultural traditions.

4.5.3 The sociocultural tradition

The sociocultural tradition focuses on patterns of interaction between and among people rather than on individual characteristics or mental models (Littlejohn & Foss 2008:43). It views interactions as processes through which meanings, roles, rules, cultural identities and social values are created. As stated previously, the focus in this conversation is on the processes through which individuals (as composite unities of biological and mental systems) co-create social systems that represent shared meaning, which, although different, still sustain such systems contrary to expectations, given the statistical information presented in Chapter 2. Symbolic convergence is presented as the central communication theory that offers the most insight into why NDSOs exist and sustain themselves.

The sociopsychological tradition described below theorises communication as influence or persuasion, and argues that the sociocultural tradition is too vague and lacks empirical verification because it ignores the psychological processes that underlie all social order (Craig 1999:134). The response to this observation is to reiterate that communication theories are never considered in isolation, and that different theoretical perspectives across the dialogical-dialectical field of communication theories provide sufficient evidence to support theoretical arguments developed across the field of communication theory. Communication theories are seen as interrelated to greater or lesser degrees, and from this stance, the sociopsychological tradition makes a great contribution to the explanation and application of symbolic convergence theory later in this conversation.

4.5.4 The sociopsychological tradition

Communication theorised within the sociopsychological tradition explains causes and effects of communication. Craig (1999:143) describes communication problems addressed from within this tradition as “situations that call for the effective manipulation of the causes and effects of social behaviour in order to produce objectively defined and measured outcomes”. He adds that sociopsychological theory challenges the notion that human individuals are rational beings, and cites as evidence recurrent demonstrations of the contrary across social systems of various kinds. From the constructivist epistemological perspective adopted in this study, “objectively defined and measured outcomes” are questioned in principle, although the underlying psychological causes of human behaviour are not disputed. Theories within this tradition offer further explanation to theories within other traditions, while direct causality

between causes and effects of social behaviour is deemed unlikely from any perspective – individually or jointly.

The phenomenological tradition described below adds to the understanding of self-referential systems as a key concept within second-order cybernetics as discussed in the previous chapter.

4.5.5 The phenomenological tradition

The phenomenological tradition makes the assumption that people actively experience and come to understand the world by personally experiencing it. It concentrates on conscious and lived experience as the basic data of reality. Griffin (2009:49) describes phenomenology as the “intentional analysis of everyday experience from the standpoint of the person who is living it; explores the possibility of understanding the experience of self and others”.

Craig (1999:139) points out that “phenomenology challenges the semiotic notion that intersubjective understanding can be mediated only by signs, as well as the rhetorical notion that communication involves artful or strategic uses of signs”. Littlejohn and Foss (2008:38) say that Stanley Deetz, well known for his studies in organisational communication, summarised the three basic principles of phenomenology: 1) knowledge is found directly in conscious experience, 2) the meaning of an object (or abstract concept) consists of the potential of that object in an individual’s life and 3) language is the vehicle of meaning. Therefore interpretation, as the active process of assigning meaning to experience, is central to most phenomenological thought. In other words, reality cannot be separated from interpretation, just as the observer cannot be separated from the observation, as argued within second-order cybernetics. The philosophical foundations of this tradition fall beyond the scope of this study and are therefore not discussed in more detail. The section below provides a brief description of the critical tradition and its relation to other perspectives within the field of communication theory.

4.5.6 The critical tradition

The critical tradition operates from the assumption that the problem of communication in society arises from material and ideological forces that preclude or distort discursive reflection, as Craig (1999:147) states:

Communication conceived in this way explains how social injustice is perpetuated by ideological distortions and how justice can be potentially restored through communicative practices that enable critical reflection or consciousness-raising in order to unmask those distortions and thereby enable political action to liberate the participants from them.

Littlejohn and Foss (2008:46) highlight three important features of the critical tradition. First, it seeks to understand the presupposed systems, power structures, and beliefs (ideologies) that dominate society and the interests of the parties who structure these systems. Second, it aims to expose domineering social conditions and power arrangements to promote emancipation. Third, critical theory makes a conscious effort to combine theory and action.

From a Marxist perspective, the economy is the foundation of all social structure. By contrast, critical theory is situated in a modernist paradigm (Littlejohn & Foss 2008:47). Four branches that can be grouped with critical theory – postmodernism, poststructuralism, postcolonialism, and feminist studies – break with modernism in many ways: It was shown in Chapter 2 that the majority of members of NDSOs are female, while the non-profitability of this industry for the vast majority of members suggests capitalist exploitation of a certain kind. With the emphasis on theoretical development in this study, a critical perspective is not pursued in this chapter, except for the consideration that the broader social environments perpetuate capitalist values that necessarily impact on individuals globally to a greater or lesser extent. It is also acknowledged that perceptions of success within most capitalist social systems are associated with social esteem and individual self-esteem, which necessarily play a role in the creation of individual as well as social self-referential systems. Power relations are typically articulated in the rhetoric of social systems, and the rhetorical tradition described below presents theoretical perspectives on the analysis of social systems' rhetoric.

4.5.7 The rhetorical tradition

With its roots in the philosophies of Socrates, Plato and Aristotle, the rhetorical tradition directs communication inquiry towards the investigation of persuasive public address and certain commonplace beliefs about communication, such as the role of credibility and trustworthiness or the structure of argumentation for the accomplishment of a speaker's

purpose. Various NDSOs, such as Avroy Shlain or GNLD, orchestrate occasions, such as meetings and speaking occasions, frequently. At these events members are rewarded for accomplishments of various kinds, and visions and narratives are exchanged for motivational and other purposes. While the rhetoric within NDSOs is explicitly described and analysed in this study, the key communication theory in this conversation, namely symbolic convergence, is closely related to the rhetorical tradition, as it forms the foundation of fantasy theme analysis as a method of rhetorical criticism.¹⁰⁰

The speech acts theory developed by Searle (1969) is applied within the sociolinguistic perspective on rhetorical criticism,¹⁰¹ which is considered in the discussion of language throughout the conversation in this chapter. As Bester (2002) shows, the study and analysis of rhetoric is not limited to public address, but also refers to texts and other social artefacts. In the same vein, as becomes evident in the discussion of symbolic convergence later, the co-creation of meaning has been extended to apply to various communication environments and contexts, and not only to the study of communication in small groups, where it departed from Bales's (1950) study of behaviour in small groups. It is also significant to note that while the origins of modern communication studies¹⁰² have been traced to the cybernetic tradition earlier in this conversation, and also in the previous chapter, the study of persuasive communication, which referred to the original meaning of "rhetoric", can be traced to the fifth century BC in Greece, and the work of great philosophers such as Socrates, Plato and Aristotle (Bester 2002; Littlejohn & Foss 2008).

The theoretical argument in this chapter, with its emphasis on Luhmann's application of autopoietic theory to social systems, and with its constructivist epistemological orientation, steers towards *persuasive communication*, as it has been explicated in the definition of NDSOs that the behaviour of individuals and the social groups they co-create provides evidence that various forms of persuasion occur within this selling environment. The communication environments in which members of NDSOs operate and co-create meaning that create an industry of its magnitude in the process includes rhetoric and does revolve around persuasion of various kinds which is identified as the key form of communication in this chapter.

¹⁰⁰ See Bester (2002) and Terblanche (2008) for comprehensive discussions of fantasy theme analysis as methods of rhetorical criticism within the dramaturgical perspective.

¹⁰¹ Within the sociolinguistic approach the language action paradigm can be described as a structuralist orientation and it provides a most comprehensive framework for the critical analysis of language. See Bester (2002).

¹⁰² The term "modern" is not used here in relation to "postmodern" or "post modern".

It is related to Luhmann's arguments about communication and the unity of communications, which are established through the three selections illustrated in a new conceptual model in Figure 4.2 below, and discussed extensively below.

4.6 THE UNITY OF COMMUNICATIONS

The purpose of the discussion that follows is to develop a theoretical explanation for the phenomena under investigation in this study, namely NDSOs, and to apply Luhmann's theorising about communication in particular to accomplish this purpose in the next and final chapter.

Luhmann (1996:343) asserts that social systems "use communication and nothing but communication to reproduce themselves". The communication model presented in Figure 4.2 below aims to illustrate the relationships between information, utterance, and understanding, and to show its relation to a persuasive communication framework in particular, within the broader taxonomy of communication theory articulated above. Luhmann's (1995; 2002) very broad and extensive framework for discussing communication is difficult to encompass within the scope of a single chapter. Luhmann (2002:161) indicates a similar perception in the formulation of his arguments about communication related to the unity of the synthesis of communication, as he states:

[Formulated more clearly], this means that the system of communication itself specifies not only its own elements – what in each case is a unit of communication that cannot be further divided – but also its structures. What is not communicated cannot contribute to this. Only communication can influence communication; only communication can decompose units of communication (for example, by analysing the horizon of selection of a piece of information or asking about the reasons for an utterance); and only communication can inspect and repair communication. As one can easily see, the practice of such an execution of reflexive operations is a very strenuous process, one that can be held within bounds by the peculiarities of the autopoiesis of communication. One cannot reformulate more and more exactly. Sometime, and rather quickly, the useful limit of communication or patience – that is the load-bearing capacity of the psychological environment – is exhausted, or the interest in other themes or other partners prevails.

The discussions relating to the illustration of Luhmann's theorising in relation to a persuasive communication theory framework therefore attempt to provide certain links to communication theory as a field. With reference to Luhmann's articulation of selections within the unity of communication synthesis *selection*¹⁰³ also features in several persuasive communication theories, such as reinforcement theory, which identifies selective exposure, selective attention, selective retention, and selective recall (McCroskey 1978).

¹⁰³ Also see Webb (1975:156-158) for his discussion on response selection theory, Broadbent's filter theory, as well as Treisman's theory of input selection, which provides further explanation relating to both the conscious and unconscious processes involved in persuasive communication.

Luhmann's application of Maturana and Varela's theory of autopoiesis to social systems and his identification of communications as the basic units of such systems positions communication(s) at the core of constructivist epistemology and it is therefore applied in the development of arguments relating to communication, language, and meaning throughout the conversation in this chapter. Based (primarily) on the work of Luhmann (1986; 1995; 1996, 2002), the discussions on communication(s) in the sections that follow adopt a second-order cybernetic perspective. It was shown in the previous chapter that Luhmann (1986:175) describes communications as "elementary, decomposable units of minimal size", and the discussion in the sections below aims to provide a micro analysis of the unity of communication syntheses.

The central dimension within all cybernetic perspectives is "relationships", as was also explicated in the discussion on Network Theory in Chapter 2. Luhmann (1995:20-22) argues that the difference between the system and the environment must be distinguished from an equally constitutive difference, namely the difference between "element" and "relation" and he states: "the element is constituted as a unity only by a system that enlists it as an element to use in its relations". The relations between the communication elements identified and utilised in the argumentation in this conversation are identified in the description of Figure 4.2 here below that has been created for the purposes of this study. The central concepts of Luhmann's definition of communication (1986; 1995) have been utilised to create a link between his social theory of communication and an existing differentiation between persuasive communication theory frameworks (behaviourist, cognitive, and constructivist) in this conceptual model.

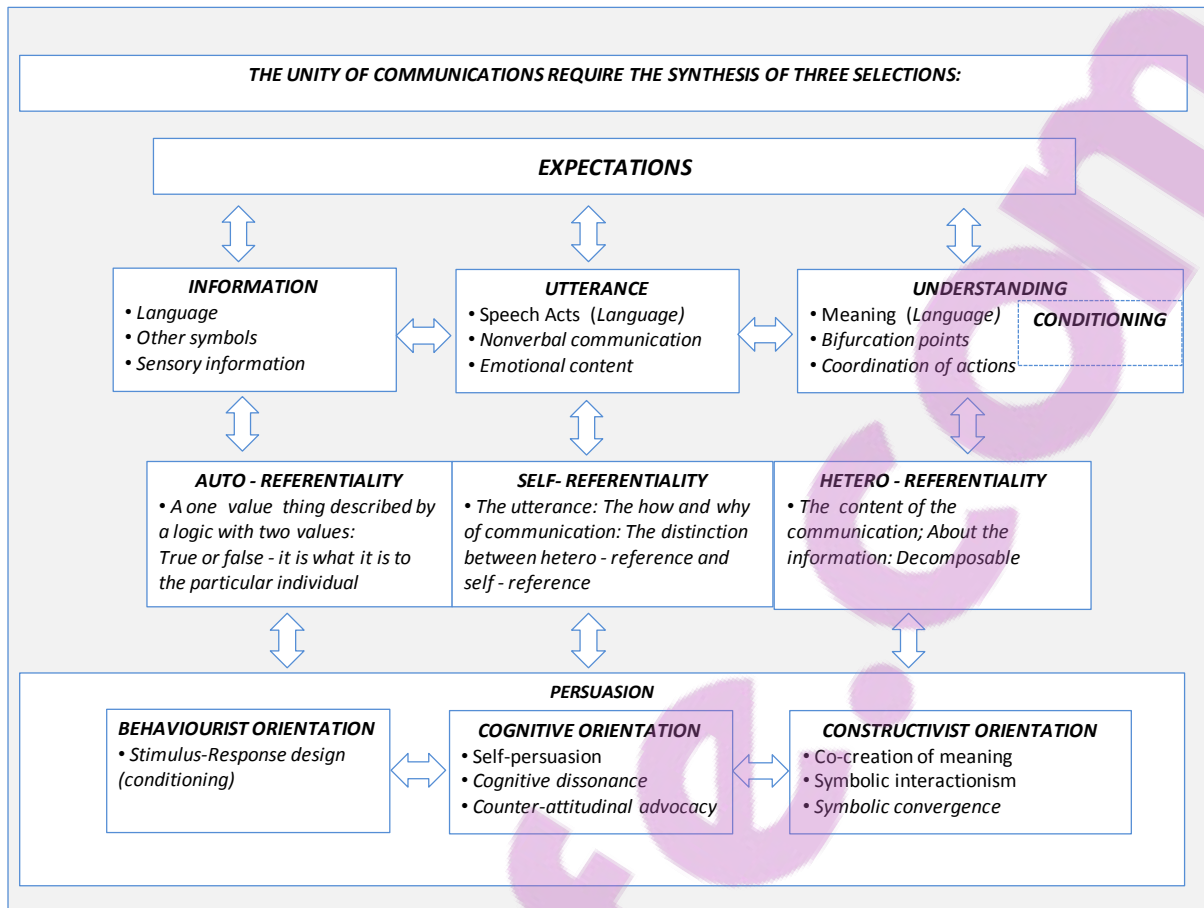


Figure 4.2: A communication model for the integration of second-order cybernetics and communication theory

Continuing from the overview of Luhmann’s application of autopoietic (second-order cybernetic) theory to the study of social systems, the discussion commences with a closer look at the three selections (information, utterance, and understanding) that Luhmann (1986) isolates as constitutive of the unity of communications. The articulation of the elements and theoretical concepts in Figure 4.2 serves as the frame of reference for every discussion that follows from here and therefore clear description is imperative. While the illustration is considered self-explanatory insofar as the topics of conversation are concerned, the general discussion of this figure that follows aims to elucidate the relations between these various elements and concepts in brief.

Luhmann (1986:172) also refers to his approach as a multi-level approach towards the study of non-living autopoietic systems. Figure 3.7 and Tables 3.15 and 3.16 show how these multiple levels can be articulated in relation to NDSOs. The discussion on Network Theory in Chapter 2 showed that the concept “multiplexity” already developed within this derivative of systems theory and that the relational dimension was the key consideration. Considering

that this conversation revolves around the investigation of communications that create NDSOs, and considering that Luhmann's application of autopoiesis to social systems is based on Maturana and Varela's biological theory with its emphasis on neural *networks*, among other things, Van Dijk's outline for a multi-level network theory (2010) can be reconsidered within the theoretical framework of this chapter. The centrality of "networks" is immediately apparent when Luhmann (1986:174) uses the following definition by Maturana (1981)¹⁰⁴ as the point of departure for his arguments related to communications as the basic elements of social systems:

To use ipsissima verba 'autopoietic systems' are systems that are defined as unities, as *networks* of productions of components, that recursively, through their interactions, generate and realize the *network* that produces them and constitute, in the space in which they exist, the boundaries of the 'network as components that participate in the realization of the *network*'. (emphasis added).

Varela, Maturana and Uribe (1974), Maturana and Varela (1980), and Maturana (1981) were referring specifically to living (biological) systems, but the implications for the study of social systems, in this definition, is immediately apparent, specifically when NDSOs are the phenomena under investigation. It has to be stated here that Luhmann's application of autopoiesis to social systems is still a contentious issue because of its application of principles relating to concrete systems to abstract systems that do not possess properties such as metabolism, for example.¹⁰⁵ It was shown in the discussion on Figures 2.7, 2.8, 2.9 and 2.10 that the ever-changing structures within NDSOs implied constant system differentiation through communications on multiple levels. The discussion of the different elements and concepts illustrated in Figure 4.2 above aims to capture and describe some of the many communications as unities of the different syntheses of information, utterance, and understanding that create these communications, and that in turn create NDSOs on a continuous basis. Luhmann (1986:174) states:

Autopoietic systems, then, are sovereign with respect to the constitution of identities and differences. They do not create a material world of their own. They presuppose other levels of reality. ...But whatever they use as identities and as differences is of their own making. In other words, they cannot import identities and differences from the outer world; these are forms about which they have to decide for themselves.

When this observation is applied to NDSOs, it places communication(s) at the core of constructivist epistemology, as Luhmann argues, but it also offers theoretical explanations for the existence and continued growth of a global industry that is continuously created within diverse cultures, economies, social systems, and without financial benefit to the vast

¹⁰⁴ Maturana, Varela and Uribe (1974:188) define autopoietic organisation as follows: "The autopoietic organization is defined as a unity by a network of production of components which (i) participate recursively in the same network of productions of components which produced these components, and (ii) realize the network of productions as a unity in the space in which the components exist". They use the case of a cell as an example.

¹⁰⁵ See Mingers (2004) for his views on social autopoiesis.

majority of its members, as shown in Chapter 2. The discussion of communication(s) and its different elements, as well as its positioning within communication theory as a field aims to show how communications *ipso facto* transcend the boundaries of cultural, social and even economic systems. The continued existence of this industry, despite the fact that the vast majority of its members do not profit from it, implies that it even transcends the logic of the global capitalist system.

With reference to expectations in Figure 4.2, Luhmann (1995) argues that structures create expectations. Expectations are selections that individuals self-create relative to the various different hierarchies of communication contexts, as it is discussed further below. Expectations are discussed in brief in this chapter, although the expectations that arise from communication created in NDSOs are discussed in detail in the following chapter.

In reference to the selections of information, utterance, and understanding, illustrated in Figure 4.2, Luhmann (1986:175) states: “The communicative synthesis of information, utterance and understanding is possible only as an elementary unit of an ongoing social system. As the operating unit it is undecomposable, doing its autopoietic work only as an element of the system”. These three selections are discussed individually further below. Luhmann’s conceptualisation of “auto-referentiality”, “self-referentiality”, and “hetero-referentiality” provides the connection between his theorising about communications and the framework of persuasive communication studies.

The terms auto-referentiality, self-referentiality, and hetero-referentiality have to be conceptualised within the specific frame of the conversation in this chapter. The discussions below will show that their application in Luhmann’s work relates specifically to the differentiation between information, utterance and understanding. Auto-referentiality is linked to a behaviourist orientation in the study of persuasive communication in the discussions that follow. Similarly, self-referentiality is linked to a cognitive orientation, while hetero-referentiality is linked to a constructivist orientation. These inferences are not made by Luhmann, but are deduced from the integration of social autopoietic or second-order cybernetics and particularly, yet not exclusively, persuasive communication theory. A clear description of these concepts will follow after the discussion of information, utterance and understanding.

Within the behaviourist framework of persuasive communication, theories relating to classical conditioning, also referred to as the stimulus-response design, offer explanations

relating to the behaviour of individuals and groups, or other social systems such as organisations. Based on observable changes in behaviour, the behaviourist framework focuses on a new behavioural pattern being repeated until it becomes automatic. Its historical inclusion of mechanistic models has elicited criticism,¹⁰⁶ although the discussions on information theory, and also associated systems theory, in particular, in the previous chapter showed that mechanistic processes are inherent in individuals' cognitive systems. The behaviourist framework includes persuasive theories developed by well-known theorists such as Pavlov (1849–1936), Thorndike (1874–1949), Watson (1878–1958), Skinner (1904–1990), and Hovland (1912–1961), whose applications can be found in prominent contemporary sources, such as Fiske and Taylor (2010).

The cognitive framework relates specifically, but not exclusively, to Luhmann's conceptualisation of "self-referentiality" and also to the previous discussions on self-reference and self-referential systems. In communication theory as a field the cybernetic and sociopsychological traditions focus more specifically on theories within this cognitive framework, although elements thereof can be found within all seven traditions of communication theory. The relationships between the cognitive orientation and self-referentiality are addressed in the arguments about communication, language and meaning below.

The constructivist framework for persuasive communication theory departs from the premise that people all construct their own perspectives of the world, through individual experiences and schema. Constructivism, within a persuasive communication context, focuses on preparing the recipient of information to the resolution of problems in ambiguous situations. As becomes apparent in the discussions that follow, these three persuasive frameworks are closely interlinked because of the multiplexity of individual and social systems. The construction of reality can be related to both conditioned meaning, and cognitive processes within individual and social systems. It has been indicated in the discussions on complexity theory and its applications that direct causality within these systems is indeterminable and therefore the persuasive communicative processes between and among the various individual and social systems can therefore not be positioned with certainty within any specific persuasive framework at any given time. The constructivist framework of persuasive communication theory is where symbolic convergence theory is positioned in this

¹⁰⁶ It is noted that Luhmann (1995:59) considers the concept "behaviour" as too constraining and states that it unduly emphasises consensus and behavioural attunement as the foundation of meaning. He avoids referring to anything specific because it excludes other options. The term "behaviourism" is used within this communicative context to distinguish between communication elements and not to apply the behaviourist psychological paradigm in its entirety.

conversation. The discussion of the individual components of Figure 4.2 here provides a background for the eventual application of symbolic convergence as a specific theoretical explanation for the existence and continuing growth of NDSOs. It is reiterated, however, that although these different components of Figure 4.2 are discussed individually, they are inextricably linked and that a discussion of one component necessarily incorporates the other components to a greater or lesser extent.

4.6.1 Information

A clear description of what is incorporated in the concept “information” is essential for the purposes of this conversation, considering the complex discussions in the previous chapter, and also the intricacy of Luhmann’s arguments about communications in general. Table 4.3 here below presents definitions of information:

Table 4.3: Definitions of information

DEFINITIONS OF INFORMATION	
SOURCE	DEFINITION
Wiener (1954:17)	Information is a name for the content of what is exchanged with the outer world as we adjust to it, and make our adjustment felt upon it. The process of receiving and using information is the process of our adjusting to the contingencies of the outer environment, and of our living effectively within that environment
Von Foerster (1970; 2003:187)	... information is a relative concept. ... the amount of information is a number depending on the choice of a category, that is, of a cognitive unit.
Weaver (in Shannon & Weaver 1949:9)	..., information is a measure of one’s freedom of choice when one selects a message. ...(continued)

DEFINITIONS OF INFORMATION	
SOURCE	DEFINITION
Luhmann (1995:67)	By information we mean an <i>event that selects system states</i> . This is possible only for structures that delimit and presort possibilities. Information presupposes structure, yet is not itself a structure, but rather an event that actualizes the use of structures. Events are elements fixed as points in time. They occur only once and only in the briefest period necessary for their appearance (the “specious present”). They are identified by this temporal appearance and cannot be repeated. Precisely this suits them to be the elementary units of processes. And precisely that is supported with respect to information.

The first observation made in reference to the definitions in Table 4.3 is that information can literally be anything. The second observation is that most information is perceived unconsciously, as it was shown in the discussions in the previous chapter, with specific reference to McCulloch’s observation that the input-output ratio of information is one hundred million to one (McCulloch 1965:146). The third observation relating to these definitions is that information does not necessarily incorporate a semantic dimension, in other words linguistic meaning. This means that the definition of information is relative to the level of analysis and the particular system under investigation. In other words, what is classified as information in one system may not be considered to be information to another system.

It can therefore be argued that Luhmann’s reference to “system states” does not necessarily relate to the system states identified in the discussion of complexity theory in the previous chapter (see 3.6.4). However, his description of information cited below shows that it can be related to systems within the individual as well as social systems:

Information is always information for a system (which, of course, can include several systems at once). In characterizing systems that can acquire and process information, one must include an additional feature, which indirectly serves to determine the concept of information. We have in mind systems that operate self-referentially, thus systems that must always play a part of their own in the alteration of their own states. ...External influences appear to self-referential systems only as determination for self-determination and thus as information, which changes the internal context of self-determination without eliminating the structural principle that the system must come to terms on its own with everything that ensues from that self-determination. Therefore information is an event that constrains entropy without thereby pinning down the system (Luhmann 1995:67-68).

It has been acknowledged in the discussions on Luhmann's theoretical arguments that he focuses on social systems, although it has also been reiterated throughout the discussions in this study that individuals co-create social systems, and therefore that individuals' system states ultimately determine social systems' states. Luhmann's description of information as "an event that selects system states" therefore *necessarily* implies individual as well as social system states, as these system states are inseparable. Given that self-reference is one of the key concepts within social autopoiesis and second-order cybernetics, it also has to be considered that 1) all information is perceived simultaneously by various operationally closed biological and mental systems within individuals, and 2) that information is constituted by any "content" that appears or occurs outside the boundaries of operationally closed systems, whether these are systems within the individual or whether they are social systems. However, taking into account that the descriptions and definitions of information are relative to the kind of system under investigation and also to the level of analysis and that they are therefore unlimited, some specific considerations are articulated here for the purposes of this conversation.

4.6.1.1 Key considerations relating to information for the purposes of this conversation:

- Information refers to all content perceived by individuals, whether such perception is conscious or unconscious.
- It is considered that information is perceived differently by different biological and mental systems within the individual, and also by different social systems, for different purposes.
- With reference to the three selections (information, utterance, and understanding), it can be seen that utterance as well as understanding can also be described as information.
- All symbols, including language, are considered to be information.
- The relevance of information¹⁰⁷ is determined by self-referential systems, and as selections, pieces of information is produced by the system itself in comparison to something else (Luhmann 1986:175).
- Non-verbal communication constitutes information which is usually contained in the utterance selection of the communication synthesis.

¹⁰⁷ See Wilson and Sperber (1993) for a comprehensive discussion of relevance theory.

The next section describes utterance and its relation to the other components in the communication model presented in Figure 4.2.

4.6.2 Utterance

The selection of utterance¹⁰⁸ solidifies the understanding that one cannot not communicate. Luhmann (1995:151) confirms this observation as he states:

To be sure, communication is possible without any intention of utterance, so long as ego succeeds in observing a difference between information and utterance nevertheless. Under the same condition communication is also possible without language, perhaps through laughing, through questioning looks, through dress, through absence, or, quite generally and typically, through deviation from expectations that one can assume are known.

The close relationship between information and utterance is immediately apparent. Non-verbal communication encompasses much of this selection of understanding in the unities of communication synthesis. The different aspects and forms of non-verbal communication are generally known and it will suffice to note here that non-verbal communication can contain all three selections of the communication synthesis, namely information, utterance, and understanding. For example, a facial expression¹⁰⁹ can represent information (approval, discontent, confusion, and so forth); it can be perceived as an utterance (acceptance, rejection, non-committal, and so forth), and can generate understanding (meaning) within a self-referential system (meaning within the individual or within a social system), together with other units of information such as language or system states, as discussed in the previous chapter. Besides reference to nonverbal communication, utterance is a key concept in Searle's (1962) speech acts theory, which illuminates the perceived intention(s) imbedded within linguistic communication.

Speech acts theory shows how intention is imbedded in language and more specifically language use¹¹⁰ and a brief discussion on its main tenets are considered relevant to this conversation, specifically because it illuminates the *unconscious* utterances that form part of unities of communication synthesis.

¹⁰⁸ In his discussion of utterance, Luhmann (1986; 2008) says that the correct term in German is actually "*mitteilung*", which is not translatable into English.

¹⁰⁹ See Goffmann (1967) for his analysis of ritual elements in social interaction for further clarification of the creation and operation of visual systems. This relates to the perception of non-verbal communication with specific reference to face-work as described by Goffmann, and also face-negotiation theory as discussed by Littlejohn and Foss (2008:172-174) and Griffin (2009:400-413).

¹¹⁰ See Cooren (2003) for a more recent application of speech acts theory to conversational analysis.

With reference to the discussions on language, as well as autopoiesis, and the frequent references to the individual as a composite unity of biological and mental systems throughout the conversations in this study, it is considered relevant to record the following observation Smith (2003:1) makes about Searle: “While still conceiving language as central to philosophical concerns, he sees language itself against the background of those neurobiological and psychological capacities of human beings which underpin our competences as language-using organisms”. With reference to the discussion on information above, the close relationship between utterance and information becomes even more apparent in speech acts theory which shows how conscious or unconscious intention can be perceived consciously or unconsciously by recipients of information. How information is uttered is vital to the accomplishment of a communicator’s purpose (Littlejohn & Foss 2008:112). Figure 4.3 below that has been created for the purposes of this discussion exhibits the key concepts in Searle’s speech acts theory (1962).

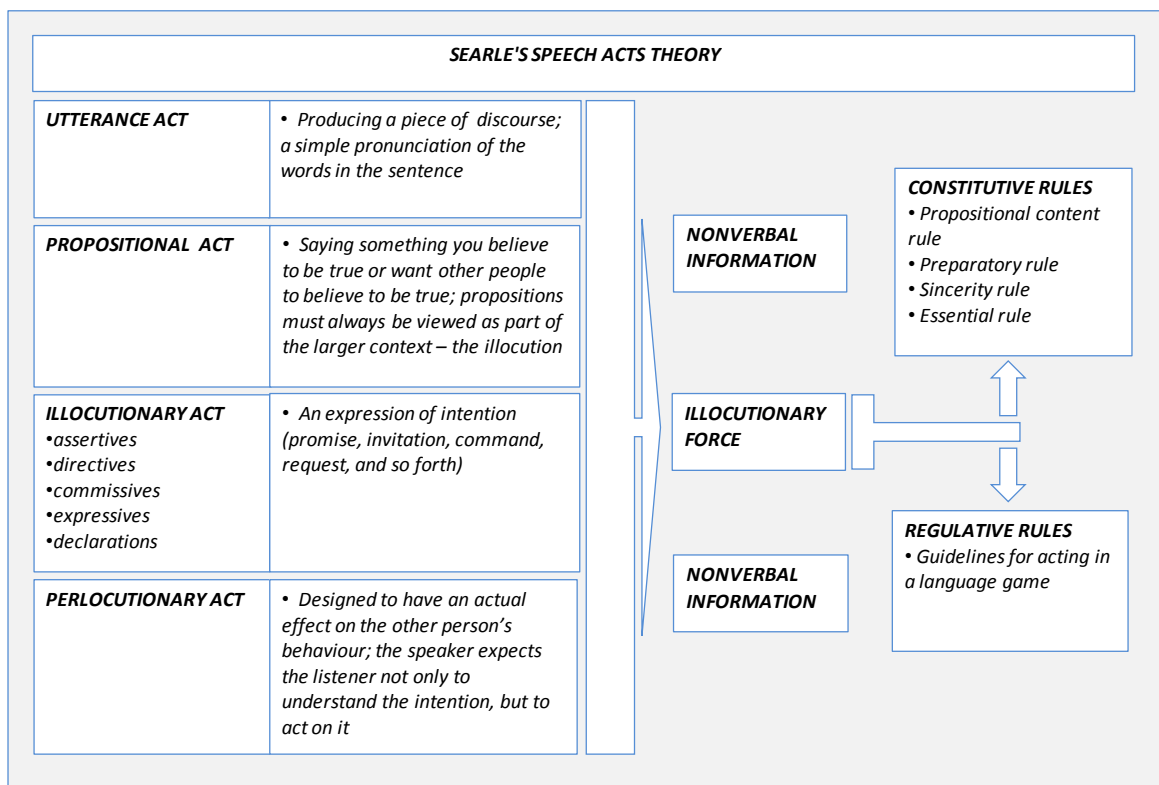


Figure 4.3: An illustration of key concepts in speech acts theory

As it can be observed in Figure 4.3, speech acts theory places the emphasis on the verbal dimension of utterance as a selection within the unity of communication. Searle (1976) focuses on the illocutionary act and the illocutionary force, which are the key indicators of intention and contained within verbal utterances. The broad descriptions of the four kinds of

speech acts Searle identifies are contained in this figure and require no further definition for the purposes of this discussion.¹¹¹ Further differentiation¹¹² observed in Figure 4.3, such as the types of illocutionary acts and the basic set of constitutive rules, provides a deeper understanding of how intention is imbedded in the use of language as a dimension of utterance. It is further noted here that Luhmann (1995:142) makes reference to John Austin's theorising on speech acts.¹¹³ For the purposes of the discussion in this section, utterance itself is isolated within speech acts theory to retain the focus on the unity of communication synthesis. It is also noted here that speech acts feature prominently in Pearce and Cronen's theory of the coordinated management of meaning, discussed in the next section, and also in Ting-Toomey's face-negotiation theory.¹¹⁴

In reference to utterance acts, Wilson and Sperber (1993:1) make the following observation: "Utterances express propositions; propositions have truth conditions; but the meaning of an utterance is not exhausted by its truth conditions; ... An utterance not only expresses a proposition but is used to perform a variety of speech acts". The utterance act in itself is therefore also an indicator of the other kinds of speech acts. Luhmann (1995:153) says that processes that can be applied to themselves are reflexive. In other words, communication processes can be thematised insofar as a person can inquire about and explain what something meant, can request communication, can accept or reject communication, can establish connections between communications, and so forth. He states in this regard:

All this continues to be based on the difference between information and utterance, but in reflexive communication, communication itself is treated as information and made the object of utterances. This is hardly possible without language, because what is merely perceived is not explicit enough as communication for further communicative treatment.

As the discussion in the next section shows, the selection of understanding within the unity of communication synthesis is to a significant extent dependent on the distinction individuals make between the selections of information and utterance. It also has to be pointed out here that that information obtained through utterances of all kinds, including unintentional or unconscious utterances, becomes unities of communication synthesis within the individual self-referential systems, and when the individual responds to this (perceived) communication, the utterance of whatever kind then becomes information to the recipient(s)

¹¹¹ See Searle (1962; 1976); Smith and Searle (2003); and Smith (2003) for in-depth discussions on Speech Acts theory and the construction of social reality.

¹¹² See Searle (1962) for his formulation of speech acts in terms of variables in a mathematical fashion to explain the calculation of meaning in speech acts, which Shirley (1975) argues is not possible.

¹¹³ Luhmann (1995:142) discusses his tripartite division of information, utterance and expectation of success in relation to Austin's typology of distinguishable utterances, or speech acts, namely locutionary, illocutionary, and perlocutionary acts. Also see Austin (1962) for his pragmatic perspective on speech acts, as well as Shirley (1975) for a comparison between Austin and Searle's applications of Speech Act Theory.

¹¹⁴ See Littlejohn and Foss (2008:172) for the identification of speech acts in face-negotiation theory.

of such utterances. Therefore, communication a completely self-referential process, as Luhmann (1995:149) states:

... communication transforms the difference between information *and* utterance into the difference between acceptance *or* rejection of the utterance, thus transforming “and” into “or”. ... Accordingly, communication is a completely independent, autonomous, self-referentially closed mode of processing selections, which never lose their character as selections, a mode of constantly changing the forms of meaning material, of reshaping freedom into freedom under changing conditions, whereby (given the premise that the environment is complex enough and not ordered as pure randomness) experiences of reliability gradually accrue and are then re-included in the process [author’s own emphasis].

It is further evident from Luhmann’s emphasis on the self-referentiality of communication, that both information and utterance are characterised and defined within individuals’ operationally closed autopoietic systems and become communication through understanding, which is unique to each individual. Similar dimensions of communication are addressed in discussions on communicators’ style,¹¹⁵ but as further discussion of such applications will lead the conversation astray, they are not included in this conversation. The key considerations relating to utterance for the purposes of this conversation are listed here below:

4.6.2.1 Key considerations relating to utterance for the purposes of this conversation

Luhmann (1995) makes specific claims about utterance and its relation to information and understanding, of which the following are illuminated for the purposes of this discussion:

- Utterance encompasses the perception of information of various kinds, including non-verbal communication, speech acts, or the perception of meaning in any form.
- Conscious utterance implies intention, although unintentional and unconscious actions can be perceived as utterance.
- Communication presupposes the difference between information and utterance and the contingency¹¹⁶ of both (Luhmann 1995:150).
- Every communication expresses the possibility that self-reference and utterance diverge (Luhmann 1995:150).

¹¹⁵ Weinstein (1983:9) says that style (utterance) can be much more important than the contents of a speech, depending on the degree of formalisation of relations in the society. Also see Gibson and Hanna (1976); Covino and Joliffe (1995); Rybacki and Rybacki (1991); Larson (1995); and Hart (1997) for elaborate discussions on utterance and style for the purposes of communication analysis.

¹¹⁶ Luhmann (1995:150) also argues that the contingency of communication arises from self-referentiality insofar as the individual presents herself as a context of information that could also be otherwise and therefore that difference between sincerity and insincerity becomes a theme when it is acknowledge that society is held together by communication rather than some natural order. This argument is not incorporated into the argumentation in this chapter.

- The difference between information and utterance is built into all communication and ultimately determines understanding within operationally closed self-referential systems.

The distinction between utterance and information that is made in all communication constitutes understanding (and hence meaning) within operationally closed, self-referential systems and some of Luhmann's claims about understanding are identified and discussed in the section below.

4.6.3 Understanding

It is apparent from the discussions in the previous sections that understanding is a unique occurrence for each individual in every unity of a synthesis between information, utterance, and understanding. Luhmann (1995:147) says that understanding, as the third selection, concludes the communicative act. It follows that when one communicative action follows another it tests whether the preceding communication was understood. In other words, whether the corresponding utterance, which may be words, actions, non-verbal communication or any other information creates a new communication synthesis (consciously or unconsciously) within the individuals' operationally closed self-creating systems.

It is argued below that communication is not action, as it encompasses far more. However, while Luhmann (1995:151) argues that without the expectation of understanding communication would not occur, the theory of coordinated management of meaning, as developed by Pearce, Cronen and colleagues, offers explanations for the systemic connection between action, meaning and coordinated behaviour. Littlejohn and Foss (2008:175) categorise this theory within the cybernetic tradition and agree that it addresses questions relating to how various communicative contexts impact on and inform each other. It is apparent in the discussion on Luhmann's argument that communication is not action in that it bears resemblance to the premises contained in the theory of the coordinated management of meaning, discussed below.

The background and detailed description of cybernetics, and specifically second-order cybernetics and complexity theory in the previous chapter, and also the conversation in this chapter thus far has aimed to explicate the multiplexity of communication. As a broad communication theory the theory of coordinated management of meaning relates closely to

speech acts theory, discussed in the previous section, and also to general systems theory,¹¹⁷ relevance theory,¹¹⁸ speech codes theory,¹¹⁹ symbolic interaction,¹²⁰ Weick's theory of organising,¹²¹ Powers's perceptual control theory,¹²² and, as the conversation will show later, to symbolic convergence. Pearce (1992; 1995; 2009) explicitly adopts a constructivist epistemological orientation in his work, which further aligns the theory of coordinated management of meaning as a broad theory with the overall purposes of this study. At the same time, some of the earlier discussions on this theory emphasise the logical dimension,¹²³ and contain algebraic formulations (which are not discussed in detail in this section). With the purpose of showing how understanding completes the unity of any communication synthesis, the theory of the coordinated management of meaning shows that although many different understandings may occur, further communication and actions are coordinated by these various understandings and that these communications create social systems, such as NDSOs.

Cronen, Pearce and Harris (1979:23) show the need for a theoretical explanation of meaning and action that transcends cultural relativism by identifying patterns and principles which underlie diversity. Considering that NDSOs operate globally and within multiple cultural environments, it is imperative to identify some of the logical patterns that cut across cultural differences. The theory of the coordinated management of meaning departs from the premises that in any communication situation individuals do two things: 1) They assign meaning to the situation, and 2) they decide how to respond or act within the situation. It has been shown in the previous chapter, and reiterated throughout the discussions in various

¹¹⁷ The hierarchy of meanings referred to by Cronen, Pearce and Harris (1979) can be related to the hierarchies of complexity identified within a general systems framework, as discussed in the previous chapter.

¹¹⁸ As was suggested previously, relevance theory can be closely related to both speech acts theory and the theory of the coordinated management of meaning insofar as the individual's decisions relating to relevance of perceived communication corresponds to both the perceived intent and the determination of logical force that drives individual action.

¹¹⁹ Speech codes theory by Philipsen (1992; 1997) provides further evidence of culture as a context in terms of and in relation to the theory of the coordinated management of meaning.

¹²⁰ Although symbolic interactionism is addressed further in this conversation, it can be noted that much of the prefigurative logical force which drive individual action can be seen as pre-conditioned meaning, such as those imbedded in symbolic forms like metaphors. Symbolic interactionism can also be related to the theory of the coordinated meaning as the perceived meaning within small groups in particular, coordinates actions such as those witnessed within NDSOs.

¹²¹ It has been suggested in the previous chapter, and it is reiterated here, that Weick's conceptualisation of sense-making within organisations, as well as his reference to causal loops, for example, corresponds with some of the premises in the theory of the coordinated management of meaning. See Weick (1979).

¹²² See Forssell (2009) for a compilation of various discussions on Powers's perceptual control theory of which many premises relate to the theory of the coordinated management of meaning as well as the broader cybernetic perspective, as referred to in the previous chapter.

¹²³ See Cronen, Pearce and Harris (1979) for their discussion of the logic of the coordinated management of meaning as a rule-based approach and their case study in which they explain the complexity of the logics of coordinated management of meaning, utilizing mathematical formulations. Also see Cronen and Pearce (1992) for a comparison of Davies and Harré's views on the coordinated management of meaning theory, which includes other algebraic formulations.

sections of this conversation that individuals are composite unities of operationally closed, self-creating biological and mental (psychic) systems. It is therefore understood that the meaning an individual assigns to a communication situation (the selection of understanding in the communication synthesis) is the outcome of various systems within the individual, and relates to various other social systems which create the communication environment at any given point, relative to its past and its future, and also relative to its level of consciousness at any given time. The decision to respond is inspired by this understanding and the response then provides the evidence of such understanding through the information presented in the following creation of a communication synthesis (information, utterance, and understanding). Littlejohn and Foss (2008:176) consider three sets of ideas as key to the theory of the coordinated management of meaning, namely *meaning and action*, *interaction*, and *stories*, which are also considered relevant to the broader conversation in this chapter and which are utilised as headings in the discussion that follows.

As Griffin (2009:81-82) observes, Pearce and Cronen's theory has been criticised for its lack of clarity and complex set of terminology. Therefore, the discussion of the theory of the coordinated management of meaning in this section aims to present an alternative explanation of how coordinated or joint action (such as occurs within NDSOs in particular) does not necessarily imply shared understanding.

- ***Meaning and action***

The theory of the coordinated management of meaning highlights the reciprocal relationship between meaning and action, insofar as meaning affects action and action affects meaning, in other words the selection of understanding in any communication synthesis. Although it is clear from Luhmann's articulation of the selections within communication synthesis that the relationship between meaning and action is determined by the unity of this synthesis, the theory of the coordinated management of meaning explains the connection between meaning and action as mediated by a series of contexts. A context can be described as points of reference, or as Von Foerster (2003) terms it, points of recursivity.

Cronen, Pearce and Harris (1979) discuss *hierarchies of meaning*,¹²⁴ which Littlejohn and Foss (2008:176) adapt to describe *hierarchies of contexts*. Littlejohn and Foss (2008:176) say that contexts are related to one another in a hierarchy, and that one context is always part of another. They present an illustration of a possible hierarchy in Figure 4.4 below, which is merely illustrative and thus not fixed. The double arrows aim to show the reciprocal relationships between contexts.

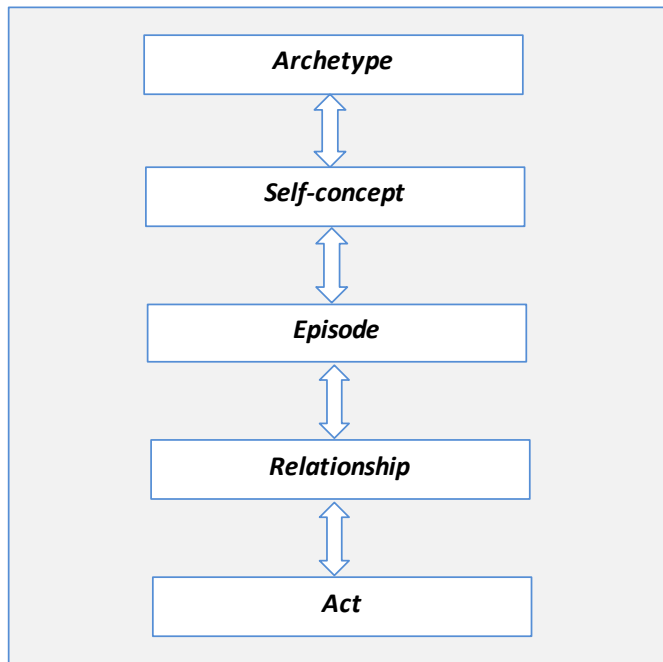


Figure 4.4: Hierarchy of contexts (adapted by Littlejohn and Foss 2008:177)

The most interesting context in this illustration is the self-concept, since self-referentiality is one of the key elements in Figure 4.2. The theory of the coordinated management of meaning shows that contexts may shift around – in other words, different contexts dominate at different times. It is relevant to note here that the discussion on Carlston's associated systems theory that was related to Mayers's discussion on personality theories in the previous chapter shows that different ego system states may be the cause of these *shifts in contexts* referred to in the theory of the coordinated management of meaning. Whereas Carlston (1994) identified four primary and four secondary representative mental systems, it

¹²⁴ In view of the complicated content of Cronen, Pearce and Harris (1979), as well as Cronen and Pearce (1992) Littlejohn and Foss's (2008) explanation of the theory of the coordinated management of meaning is considered more apt for the purposes of the discussion in this section. In relation to Littlejohn and Foss's (2008:177) articulation of a hierarchy of contexts as points of reference, Cronen, Pearce and Harris (1979:25) identify raw sensory data, constructions, construction systems, speech acts, episodes and finally life scripts in their illustration of a hierarchy of meanings.

was argued that the ego system¹²⁵ was the central point of recursion and therefore the central context in all communication. Therefore, Luhmann's claim (1995:143) that communication is possible only as a self-referential process can also be considered in terms of the ego system as the self-concept and a context of communicative action. The key terms in Figure 4.4 can be described in brief, as follows.

The archetype refers to the broader communication context, such as a meeting between individuals. The self-concept is the context of the individual as a composite unity of mental and biological self-creating systems. Conversations take place within the context of an episode, which may be a meeting between friends in a restaurant for perceived social purposes. The meaning of the communication can also be determined by the relationship between the individuals, in other words the history and future of the friendship. The cultural environment may further determine the meaning of the communication, for example whether the individuals subscribe to individualist or collectivist cultures¹²⁶ jointly or respectively; whether they subscribe to any particular speech codes¹²⁷ in such cultures; whether the restaurant environment represents any particular culture; and so forth. The act refers to the utterance act, as it has been described earlier. As mentioned earlier, the link between the theory of the coordinated management of meaning and speech acts theory is evident because contexts affect meanings and actions according to constitutive and regulative rules which was identified in the illustration of speech acts theory in Figure 4.3 above. However, whereas speech acts theory places the emphasis on the perceived intention of the speaker, the constitutive rules in the theory of the coordinated management of meaning refer to rules of meaning and the regulative rules refer to rules of action. The constitutive rules can therefore be related to conditioned meaning, or auto-referentiality, as is articulated in the section further below. In terms of the theory of the coordinated management of meaning, the operation of these rules determines what Luhmann (1995) refers to as the unity of the communication synthesis.

Speech acts theory refers to the illocutionary force, whereas the theory of the coordinated management of meaning refers to the logical force of regulative rules and four types of logical force are generally identified. These are prefigurative or causal force, practical force,

¹²⁵ Cf. Adcock and White (1984).

¹²⁶ See Ting-Toomey and colleagues discussion on collectivist and individualist cultures in Ting-Toomey, Gao, Trubisky, Yang, Kim, Lin and Nishida (1991) as it relates to the arguments relating to culture presented by Pearce, Cronen and Harris (1992).

¹²⁷ See Tannen (1990) for her discussion on genderlect styles in communication and its relation to culture and hierarchies of contexts in communicative situations.

contextual force and implicative force (Littlejohn & Foss 2008:177). Table 4.4 below, created for the purpose of this discussion, presents a summary of these four types of logical force.

Table 4.4: Four types of logical force which constitute rules of action

FOUR TYPES OF LOGICAL FORCE IN REGULATIVE RULES	
Type of logical force	Description
Prefigurative (causal)	A logical force that is predetermined, such as personal traits, which operates on primarily unconscious levels as determined by operationally closed self-referential systems..
Practical	A logical force that operates on the predominantly conscious levels whereby action is determined as a response to the individual's perceptions (self-referential)
Contextual	A logical force that operates according to an individual's understanding of what is logical within a particular context, such as the self-concept. (hetero-referential)
Implicative	The logical force through which meaning is determined within an individual's operationally closed self-referential systems; an actualisation of any chosen meaning

When it is considered that individuals' actions are determined by their understanding as the completion of any communication synthesis, and that this understanding is translated as meaning(s) within individuals (as composite unities of operationally closed biological and mental systems), it is clear that these types of logical force can be considered as constitutive of the information and utterance¹²⁸ that proceed and create further communication, and hence understanding. A clearer description of these types of logical force provides a link to the description of auto-referentiality, self-referentiality and hetero-referentiality in the section that follows.

Prefigurative or causal force can be described as an individual's propensity to (re)act in response to any perceived communication, hence the reference to "traits" in Littlejohn and Foss (2008:177). With reference again to Carlston's theory of associated systems (1994) and also to Mayer's discussions (2001) on personality theories in the previous chapter, it can be deduced that this type of logical force constitutes conditioned meaning, or auto-referentiality. At the same time, such auto-referentiality constitutes recursivity in the individual's self-referential systems, of which the ego systems are most prominent. It can

¹²⁸ Cf. Cronen, Pearce and Changseng (1990).

further be argued that this prefigurative force constitutes, to a significant extent, hetero-referentiality insofar as the individual's actions manifest themselves as utterances, which then become communication syntheses that create social systems, such as NDSOs.

Practical logical force can be described as a predominantly conscious dimension of individual action. Whereas the prefigurative logical force can be explained in terms of contexts such as the self-concept, relationships, episodes, and so forth, whereby individual traits such as extroversion, or non-compliance may cause her actions, the practical logical force refers to the individual's choice of action and hence utterance. It can therefore be affirmed that the practical force is constituted by the individual's understanding. In terms of Luhmann's discussions on the unity of the synthesis of communication, this practical force refers to the points of bifurcation where individuals make the decision of acceptance or rejection. The conversation returns to this point below in the section where specific arguments about communication, language and meaning are related to symbolic convergence theory.

The distinction between practical and contextual logical force may appear confusing and requires clear description. In terms of the theory of coordinated management of meaning, the interpretation can be that the contextual logical force almost legitimises the prefigurative logical force. In other words, an individual justifies her behaviour in terms of this contextual force. This kind of logic can show a link between auto-referentiality, self-referentiality, and hetero-referentiality in that actions are deemed *acceptable* within operationally closed social systems. For example, in certain communication contexts, such as an episode, it may be acceptable to invite a friend as a social gesture, and then to proceed with a discussion of direct selling and altering or shifting the communication context in this way. If it is considered that contextual logical force results in actions such as the commercialisation of close relationships, as it has been reported to be the case in Chapter 2, it can be argued that, in terms of the theory of the coordinated management of meaning, it is this contextual logical force that plays a determining role in individuals' actions in social systems such as NDSOs.

Implicative force is of particular significance, not only in terms of the explanation of the existence and sustenance of NDSOs, but in terms of social autopoiesis in general. According to the theory of the coordinated management of meaning, the individual makes the choice of the communicative choices (the points of recursivity) whether this happens consciously or unconsciously. For example, the individual may consider it peculiar to be invited for a social engagement and then find that it had a materialistic intention, or she may not, as determined by other contexts, such as the relationship, self-concept, archetype,

episode, and so forth. Since speech acts are also considered within the theory of the coordinated management of meaning, the perceived intention in this example can be that such an invitation is an insult, or, on the other hand, as a caring attempt to share an opportunity. It can therefore be argued that it is every individual's understanding and choice of contexts that determine or create this implicative force which co-directs further action(s) within individuals.

In conclusion to this set of ideas about meaning and action as presented within the theory of the coordinated management of meaning, the following key points can be made:

1. Communicative actions occur in hierarchies of contexts that are not fixed and may shift or change within operationally closed self-creating systems within individuals as composite unities of biological and mental systems.
2. Constitutive and regulative rules are learned (conditioned) within different operationally closed individual and social systems which constitute auto-referentiality and self-referentiality.
3. Every communication synthesis is created within the individual, whether consciously or unconsciously, through these constitutive and regulative rules that direct individuals' actions.

The section of ideas relating to interaction below provides further insight into the coordination of action that occurs in terms of the theory of the coordinated management of meaning.

- ***Interaction***

The illumination of the multiplexity of communications in various discussions throughout the conversations in the previous chapters has established, in essence, that the varieties of meanings that can be created are infinite. The coordination of individuals' action occurs through interaction and this set of ideas within the theory of the coordinated management of meaning are considered with the purpose of providing links to the discussion of the unity of communication synthesis and to communication theories that provide further insight to interaction and hetero-referentiality in particular, which is conceptualised later in the conversation.

Littlejohn and Foss (2008:178) say that the primary task of all communication is to achieve and sustain some form of coordination, and they utilise the Daisy and Serpentine Models to

illustrate this point¹²⁹. This claim corresponds with Maturana and Varela's assertion that language creates a consensual domain of behaviour (assessed below). Conceptually, interaction is implied in most discussions on communication theory, particularly where social systems are the phenomena under investigation. The discussion of specific communication theories relating to interaction is not considered necessary in this section. However, Luhmann (1995:150) makes specific reference to the sincerity and insincerity of communication,¹³⁰ and the paradox of communication. He notes that such perceptions of sincerity and insincerity may have particular implications for communication syntheses within communicative situations linked to NDSOs. For example, when they are all members of an NDSO, individuals will tend to question whether a friend is contacting them to require about their well-being or merely to sell them a product. Well-known theories such as interpersonal deception theory,¹³¹ social penetration theory,¹³² uncertainty reduction theory,¹³³ and the interactional view,¹³⁴ among several others, address different dimensions of interaction that can be related to the theory of the coordinated management of meaning as well as perceptions of sincerity in interaction.

In conclusion to this set of ideas relating to interaction within the theory of the coordinated management of meaning, the following key ideas can be highlighted for the purposes of discussions that follow:

1. Coordination occurs through interaction among individuals and with the emphasis on self-reference from a second-order cybernetic perspective, individuals' interaction with their self-concept as a communicative context has to be considered.
2. The coordination of actions that do occur does not necessarily imply shared understanding or meaning.
3. The impact or consequences of interaction cannot be predicted, because the unity of communication synthesis that is created in communication becomes information and utterance once again because of the self-referentiality of communication.

¹²⁹ See Littlejohn and Foss (2008:178-179).

¹³⁰ See Luhmann (1995:150–151) for his discussion on communication that “unleashes a subversive, universal, irremediable suspicion” and his argument that the “understander must presuppose self-reference in the communicator in order to use this self-reference to separate information from utterance” to conclude the selection of understanding in the communication synthesis.

¹³¹ See Buller and Burgoon (1996) for a comprehensive discussion of interpersonal deception theory, which offers further explanation of the prefigurative logical force as articulated within the theory of the coordinated management of meaning.

¹³² See Altman and Taylor (1973) for further insight into how self-disclosure relates to the unity of the synthesis of communication in relation to Luhmann's arguments presented in this chapter.

¹³³ See Berger (1979:122-144) for his explanation of uncertainty reduction, which relates to the unity of the communication syntheses in terms of Luhmann's chapter on communication and action (Luhmann 1995:137-175).

¹³⁴ See Watzlawick, Beavin and Jackson (1967) for their discussions on interpersonal communication and relationships for further insight into studies on interaction within communication theory as a field.

The third set of ideas within the theory of the coordinated management of meaning, namely stories, look at another dimension of communicative action that plays a role in the selection of understanding within the communication synthesis and which relates to the differentiation between auto-referentiality, self-referentiality, and hetero-referentiality.

- **Stories**

This particular set of ideas within the theory of the coordinated management of meaning constitutes a very significant dimension of the overall conversation in this chapter for specific reasons. First, narratives are, and have been, a central theme in communication theory as a field and can be found in all seven traditions of communication theory.¹³⁵ Second, stories typically contain a communication theme, which is a topic Luhmann (1995) addresses in particular: “[Communication] themes outlive contributions into a longer-lasting, short-term, or even long-term nexus of meaning”. In other words, stories or narratives form an integral part of communication syntheses, as they become part of meanings that are sustained through social discourse¹³⁶. Third, the topic of communication themes can be directly linked to the theory of symbolic convergence, where the interaction among individuals constitute fantasy themes, which in turn create rhetorical visions through which individuals self-create and co-create a reality of their choice, and in the process co-create social systems such as NDSOs. The fourth important consideration relating to narratives can be linked to Fisher’s narrative paradigm (1988), namely that narration, and hence *fiction*, appears to be an inherent human inclination, which also relates to symbolic convergence theory and the differentiation of the selections of information, utterance, and understanding in the unity of the synthesis of communication. As it will be shown below in the section on arguments relating to meaning, the selection of understanding can possibly be created through narrative and hence, fiction, because of the “potentiality” inherent in meaning. In other words, narratives can become self-fulfilling prophecies,¹³⁷ as is often the case in NDSOs.

The theory of the coordinated management of meaning makes reference to six aspects of stories that interact to create various levels of coherence or confusion, which are contained in the LUUUTT model (Littlejohn & Foss 2008:180). These aspects of stories refer to past, present, and future aspects of stories told, and as these aspects form part of the discussions from Luhmann’s perspective, further elaboration is not deemed necessary here. Instead, the

¹³⁵ See Littlejohn and Foss (2008), Griffin (2009), Duck and McMahan (2009), and Gass and Seiter (2011).

¹³⁶ See Bester (2002) for a discussion on a narrative perspective towards rhetorical criticism, which identifies typical themes that are sustained in communicative contexts and which relates to the set of ideas about stories within the theory of the coordinated management of meaning.

¹³⁷ See Griffin (2009:147) for his comments on how perception can become actualisation.

key considerations relating to stories as they relate to the theory of the coordinated management of meaning within the framework of this discussion are the following:

1. Individuals have a natural propensity towards narration, which creates communication paradoxes.
2. Narratives can and do create communication themes that sustain a nexus of meaning in operationally closed self-creating social systems which may change.¹³⁸
3. Narratives form an inherent dimension of communicative synthesis, which can be related to the implicative logical force in communicative action and which can constitute a dimension of auto-referentiality, self-referentiality, and hetero-referentiality.

Luhmann (1986) articulates the difference between the three selections of information, utterance and understanding by conceptualising auto-referentiality, self-referentiality, and hetero-referentiality, which have been referred to throughout the discussions thus far. From the background and links provided earlier on, these concepts can be described as they are applied within the framework of the conversation in this chapter in the following section. The key considerations relating to understanding for the purposes of this conversation have been identified at the end of each section in the discussion of the theory of the coordinated management of meaning and they are listed here below in sequence for ease of reference.

4.6.3.1 Key considerations relating to understanding for the purposes of this conversation

- Communicative actions occur in hierarchies of contexts that are not fixed and may shift or change within operationally closed self-creating systems within individuals as composite unities of biological and mental systems.
- Constitutive and regulative rules are learned (conditioned) within different operationally closed individual and social systems, which constitute auto-referentiality and self-referentiality.
- Every communication synthesis is created within the individual, whether consciously or unconsciously, through these constitutive and regulative rules that direct individuals' actions.
- Coordination occurs through interaction among individuals and with the emphasis on self-reference from a second-order cybernetic perspective, individuals' interaction with their self-concept as a communicative context has to be considered.

¹³⁸ See Griffin (2009:325-330) for a discussion of semiotics and the change of meaning.

- The coordination of actions that do occur does not necessarily imply shared understanding or meaning.
- The impact or consequences of interaction cannot be predicted, because the unity of communication synthesis that is created in communication becomes information and utterance once again because of the self-referentiality of communication.
- Individuals have a natural propensity towards narration, which creates communication paradoxes.
- Narratives can and do create communication themes that sustain a nexus of meaning in operationally closed self-creating social systems which may change.¹³⁹
- Narratives form an inherent dimension of communicative synthesis, which can be related to the implicative logical force in communicative action and which can constitute a dimension of auto-referentiality, self-referentiality, and hetero-referentiality.

The emphasis on the narrative dimension of social interaction in this section aimed to emphasise the self-creation of meaning within and between individuals in communicative contexts. The description of auto-referentiality, self-referentiality, and hetero-referentiality is continued in the section below against the background provided in the discussions thus far.

4.6.4 Auto-referentiality, self-referentiality, and hetero-referentiality

It was said previously that Luhmann (1986:175) uses the terms “auto-referentiality”, “self-referentiality”, and “hetero-referentiality to distinguish between information, utterance, and understanding. These terms are conceptualised here below as they relate to the discussion of the persuasive framework illustrated in Figure 4.2 as well as to the discussion of symbolic convergence theory in the last section of this chapter.

Luhmann (1986:175) says that the distinction between information and understanding can be used to separate hetero-referentiality and self-referentiality. He does not conceptualise these terms explicitly, and does not show the implications thereof or their relations to persuasive communication. In fact, he makes no direct reference to persuasion in the texts consulted in this study. In view of the fact that the theoretical explanation of the phenomena under investigation in this study requires the re-assessment of persuasive communication from a second-order cybernetic perspective, these three terms are described here as they relate to persuasive communication.

¹³⁹ See Griffin (2009:325-330) for a discussion of semiotics and the change of meaning.

- **Auto-referentiality**

The term auto-referentiality is generally applied in literature studies in discussions relating to the linguistic phenomenon of deixis and references to space and time in the act of communication, for example.¹⁴⁰ Therefore the use and application of this term is conceptualised within this discussion as it relates to the unity of the synthesis of communication

It is therefore reiterated that Luhmann (1986) uses these terms in reference to the *communication process* and not to the *meaning of words* in isolation from this process. It is therefore imperative that the term auto-referentiality is not perceived in merely semantic terms, although the meaning in the communication process inherently possesses a semantic component. Using the terminology of Gunther¹⁴¹ (1979), Luhmann (1986:175) says:

... the process of communication is not simply auto-referential in the sense that it is what it is. It is forced by its own structure to separate and to recombine hetero-referentiality and self-referentiality. Referring to itself, the process has to distinguish information and utterance and to indicate which side of the distinction is supposed to serve as the base for further communication.

Luhmann (1986:175) states that while auto-referentiality can be seen as a one-value thing and can be described as a value of either true or false, this is not the case. In this argument he equates auto-referentiality with autopoiesis, as he states: “the base of social systems is one of much greater complexity because its self-reference (1) is based on an ongoing auto-referential (autopoietic) process, which refers to itself (2) as processing the distinction between itself and (3) its topics”. This reference to itself implies a point of recursivity, and inadvertently it implies that there is a (pre)conditioned or learned dimension to auto-referentiality. If it is accepted that this entails far more than the meaning of words, it has to be accepted that self-reference incorporates the totality of an individual’s conscious as well as unconscious experience. With reference to the discussion on Piaget’s theory of cognitive development in the previous chapter, and studies that indicate that an individual’s personality is established or fixed to some extent by the age of seven, it has to be considered that this auto-referentiality relates to the unities of communication that, through repetition or conditioning, establishes fixed points of recursivity. If this is accepted, then it has to be considered that the distinction between hetero-referentiality and self-referentiality that constitute the selection of understanding in the unity of the synthesis of communication

¹⁴⁰ See, for example, Nemeč (1993) and Claude and Strauss (2004).

¹⁴¹ It is noted here that Luhmann (1986: 2008) makes reference to the work of Gotthard Gunther who, according to Kaeher (2002), was one of the key cybernetic thinkers who worked with McCulloch, Von Foerster, and Maturana, although Heylichen (2004) does not record him as such.

is determined by auto-referentiality. Auto-referentiality is therefore essential to the determination of understanding, and it has to include *conditioned or learned* meaning of experience, and also (at least) denotative meaning in *language* to a significant extent. It can further be argued that auto-referentiality refers to the contexts referred to in the discussion of the theory of coordinated management of meaning, and hence that it is such auto-referentiality which creates expectation or, what Luhmann (1995:151) refers to as the “anticipation of understanding” without which communication would not occur. However, Luhmann (1995:147) does refer to a fourth selection, namely the acceptance or rejection of the specific meaning that was communicated: “One must distinguish the addressee’s understanding of the selection of meaning that has taken place from acceptance or rejection¹⁴² of that selection as a premise of the addressee’s own behaviour”. This selection is referred to below in the discussion of specific claims about communication, in particular the claim that Luhmann makes that only communication itself can reach a point where it bifurcates further possibilities. It should also be noted here that while this link is not developed further in this discussion, the description of self-organisation in the conversation relating to second-order cybernetics in the previous chapter can be linked to auto-referentiality.

It is imperative to the purposes of this conversation that the link between the behaviourist orientation in persuasive communication and the concept of auto-referentiality is made at this point. It has been indicated by the double arrows between the elements in Figure 4.2 that they are all inextricably linked and it is reiterated here that auto-referentiality determines the selection of understanding, in relation to the selections of information and utterance. The description of self-referentiality and hetero-referentiality below aims to provide further clarification. These are not discussed under separate headings, as they can only be described in relation to each other. They will be distinguished more clearly within the discussion of the persuasive framework in the following section.

- ***Self-referentiality and hetero-referentiality***

Luhmann (1986:175) says that self-referentiality refers to the utterance, in other words, the how and why of the communication, whereas hetero-referentiality refers to the content of the communication, in other words the information about the information. This means that the individual is considering what is said, how it is said, or why it is said, when determining

¹⁴² Cf. Dance’s criteria of normative judgment under 4.3.1 earlier.

further communication. These questions necessarily go back to *meaning*, since individuals can only make the differentiation between information and utterance based on meaning within their own operationally closed self-creating (autopoietic) systems. Whereas self-referentiality has been described clearly in the discussion on second-order cybernetics, and with the understanding that the individual's ego system can be viewed as the central self-referential system in relation to other biological and mental systems, the description of hetero-referentiality is not that clearly articulated in Luhmann's discussion of these concepts. It can be argued that while he associates self-referentiality with utterance, and hetero-referentiality with information, this differentiation does not provide a link to the totality of understanding that completes the communication synthesis. With the emphasis on information about information in Luhmann's description of hetero-referentiality, and from the understanding that communication of whatever minimal size (as determined by the system) becomes information in a following communication synthesis, it can be argued that hetero-referentiality can refer to the co-creation of meaning within operationally closed systems, with specific reference to social systems. This differentiation may appear problematic and may require further deliberation and consideration. However, for the purposes of this conversation and within the boundaries of its application to NDSOs, self-referentiality is more directly linked to the cognitive orientation, whereas hetero-referentiality is more directly linked to the constructivist orientation within the framework of persuasive communication theory, as the section below aims to show.

4.6.5 Persuasion

From the constructivist epistemology, and correspondingly, the second-order cybernetic stance adopted in this study, this section aims to re-assess the existing framework of persuasive communication, which is generally categorised as behaviourist, cognitive and constructivist orientations. It is important to isolate some key assumptions made about persuasion in the context of NDSOs as a point of departure for this discussion:

1. Individuals who join NDSOs are persuaded to do so.
2. The act of selling implies persuasion.
3. The act of recruiting other members into NDSOs implies persuasion.
4. All persuasion implies self-persuasion to some degree.
5. Persuasion is a self-referential process.

The framework of persuasive communication orientations or designs has been described within the broad discussion of Figure 4.2 under section 4.6. For the purposes of this discussion the following definition of persuasion by Larson (2010:22) is selected: "the

process of co-creation by sources and receivers of a state of identification through the use of verbal and/or visual symbols". He adds: "Because of this process of co-creation, all persuasion consists of self-persuasion to some degree". Gass and Seiter (2011:24-30) agree that self-persuasion is common. It has been reiterated throughout the discussions in the previous chapter, as well as the discussions in this chapter so far, that second-order cybernetic perspectives revolves around the self in various ways, and that self-reference is a central concept. In this regard, the theoretical explanation for the phenomena under investigation in this study, namely NDSOs, aims to relate Luhmann's broad epistemological arguments to a specific theory in this section, namely symbolic convergence theory, for the following reasons:

- Second-order cybernetics is a meta-theoretical perspective and its application to the explanation of specific phenomena requires its relation to a specific communication theory within the framework of this study.
- Symbolic convergence theory has an explicit constructivist orientation and can be related to both speech acts theory and the theory of the coordinated management of meaning that was applied in the explanations of Luhmann's selections of information, utterance and understanding in the previous sections.
- The development of symbolic convergence commenced with the study of communication in small groups by Bales (1970), although it has since been extended to include various communication situations (Terblanche 2008)
- With its emphasis on rhetoric as persuasive communication, and therefore with its implicit emphasis on utterance, symbolic convergence theory creates a suitable framework for positioning arguments about the centrality of communication, language and meaning within the broader framework of constructivist epistemology as the philosophical stance adopted in this study.
- The fantasy themes and rhetorical visions identified within symbolic convergence theory correspond closely with Luhmann's arguments relating to communication themes that are fundamental to the explanation of the co-creating of meaning through utterance in particular.
- Symbolic convergence is a broad theory of communication that is included in many primary texts on communication theory¹⁴³ and persuasive communication theory¹⁴⁴ in particular.

¹⁴³ See Littlejohn and Foss (2008); Griffin (2009); Cragan and Shields (1981); Bormann (1982); Cragan and Wright (1990); Cragan and Shields (1992); Cragan and Shields (1995); Bormann (1996); Bormann, Knutson and Musolf (1997); and Terblanche (2008).

¹⁴⁴ See Larson (2010) and Gass and Seiter (2011).

- Symbolic convergence theory enables the integration of complexity theory and second-order cybernetics with communication theory in this chapter.

Symbolic convergence is generally known to most communication scholars and its key concepts are identified in Table 4.5 here below for the purposes of this discussion. These key concepts are applied in the discussion of Figure 4.5 in the section that follows and a brief description of symbolic convergence theory is deemed sufficient for the purposes of this conversation.

Table 4.5: An illustration of key concepts in symbolic convergence theory

SYMBOLIC CONVERGENCE THEORY	
Key concepts	Differentiation and description
Chaining processes	Individuals may intentionally develop dramatising messages that are adapted to other group members and result in a chaining process (Bormann (1990). Communication creates asymmetric chains (Luhmann 1995).
Stories	Individuals have an innate tendency to tell stories and create fantasies that amplifies during interaction with other individuals as meaning is co-created within operationally closed self-creating systems on the individual as well as social level. Stories contain themes that are described as fantasy themes which create rhetorical visions.
Dramas	Pragmatic rhetorical vision – characterised by practical and utilitarian goals Social rhetorical vision – shared consciousness that celebrates interpersonal relationships Righteous rhetorical vision – participation in a consciousness that is dedicated to some overarching cause or position. ... <i>(continued)</i>

SYMBOLIC CONVERGENCE THEORY	
Key concepts	Differentiation and description
Motives	<p>Motive for mastery – overcoming powerless or uncontrolled situations</p> <p>Motive for social affiliation (identification) – the development of interpersonal relationships</p> <p>Motive for achievement – revolves around the achievement of individual and/or group goals</p>
Dimensions	<p>Reality dimension: deals with whether or not the narratives are fictitious, non-fictitious, real, or unreal.</p> <p>Time dimension: includes the past, present, and future as communicative contexts or points of recursivity</p> <p>Moral dimension: contains narratives relating to right and wrong, praiseworthy or culpable, principled and unprincipled actions that create fantasy themes and rhetorical visions.</p>

Larson (2010:299) claims that the power inherent in the social creation of meaning came from Bales's discovery of how the telling of stories in small groups released group tension. Bormann (1972:396) agrees as he states that until Bales (1970) published *Personality and Interpersonal Behavior*, most attempts to analyse the communication that occurred in small groups were relatively limited. Bales discovered the dynamic process of group fantasising that correlates with individual fantasising and extrapolated this to speaker-audience fantasising, and to what he refers to as the "dream merchants" of the mass media (Bormann 1972:396). Many, such as Burke (1945), have viewed persuasive discourse in dramatic terms, but according to Bormann (1972:396) it was Bales (1970) who provided an account of how dramatising communication creates social realities for groups of people. It also provided a way of examining messages to gain insights into groups' culture, motivation, emotional style, and cohesion.

While Bales (1970) places an emphasis on individual psychodynamics and group concerns, Bormann (1985) focuses on the rhetorical skill with which fantasies are presented, and more specifically on the relationship between individual and group fantasising. Bormann's (1972) rhetorical dimension explains that some fantasies are shared because of the artistry with which they are presented. Direct selling agents are trained to develop such artistry while they participate in group fantasy sharing that motivates them to recruit other direct selling agents. In these persuasive campaigns suitable fantasy themes and types are drafted to promote rhetorical visions of NDSOs, as explained in the following section.

Bormann (1996:81) describes symbolic convergence theory as a general theory of communication that accounts for the appearance of group consciousness, with its implied shared emotions, motives, and meanings. Symbolic convergence theory has a three-part structure, as Bormann (1985:129) explains:

The first part deals with the discovery and arrangement of recurring communicative forms and patterns that indicate the evolution and presence of a shared group consciousness. The second part consists of a description of the dynamic tendencies within communication systems that explain why group consciousnesses arise, continue, decline, and disappear and the effects such group consciousnesses have in terms of meanings, motives, and communication in the group. The basic communicative process is the dynamic of people sharing group fantasies. The third part of the theory consists of the factors that explain why people share the fantasies they do when they do.

To eliminate misunderstanding, the term “fantasy” requires clear definition and description from the start, since its common use has connotations of wishful thinking, daydreaming or pensiveness. In fact, the accomplishment of the goals that are envisaged and shared among participants in direct selling does appear to be wishful thinking when the actual earnings of the vast majority of direct selling distributors are considered. That is not however the meaning implied here. Bormann (1996:88) clarifies the meaning of “fantasy” in the context of symbolic convergence theory as follows:

Fantasy is a technical term in the symbolic convergence theory and does not mean what it often does in ordinary usage, namely, something imaginary, not grounded in reality. The technical meaning of the term for fantasy is the creative and imaginative shared interpretation of events that fulfils a group psychological or rhetorical need. Rhetorical fantasies may include fanciful and fictitious scripts of imaginary characters, but they often deal with things that have actually happened to members of the group or that are reported in authenticated works of history, in the news media, or in the oral history and folklore of other groups and communities.

Bormann (1996:89) uses the terms “rhetoric” and “rhetorical”¹⁴⁵ frequently to describe people’s expression of their interpretation of signs, signals, current experience, and human action that they invest with meaning which emphasises the persuasive focus of his theory. Further explanation of the concepts identified in Table 4.5 will occur in the discussion in the following section.

While Luhmann (1995:138) explicitly excludes psychological determination of the unity of the elements in a social system, the integration of his theorising within the framework of symbolic convergence theory specifically, although not exclusively, includes such psychological determinations, with specific reference to associates systems theory by Carlston (1994), as well as personality theories, as discussed by Mayer (2001), and also

¹⁴⁵ See Bester (2002) for definitions of rhetoric as persuasion.

with specific reference to the identification of the ego system as the central self-referential system within individuals as composite unities of biological and mental (psychic) systems.

The section below considers specific claims relating to communication, language, and meaning with the aim of integrating the discussions relating to the links between second-order cybernetics and communication theory, with the specific emphasis on persuasive communication from this point on. With the acknowledgment that Luhmann's arguments do not at any time refer to persuasive communication specifically, the claims selected for the purposes of this conversation are related to this notion in the discussions that follow to illuminate how sources and receivers can be seen to co-create a state of identification through verbal and/or visual symbols in terms of Luhmann's arguments about communication(s), language, and meaning that are related to the unity of the synthesis of communication as illustrated in Figure 4.5 in the section below.

4.7 COMMUNICATION(S), LANGUAGE, AND MEANING

Luhmann (1986; 1995; 2002) makes several claims relating to communication, language, and meaning from a broad philosophical perspective that exceeds the boundaries of this study by far in many instances. It is therefore imperative for the theoretical explanation of the phenomena under investigation in this study, namely NDSOs, to consider specific claims and to relate these claims to a well-known and broad communication theory, namely symbolic convergence theory, as stated earlier. Figure 4.5 below, created for the purposes of this study, illustrates a new conceptual model which identifies the concepts and elements considered in this discussion which are first described in broad.

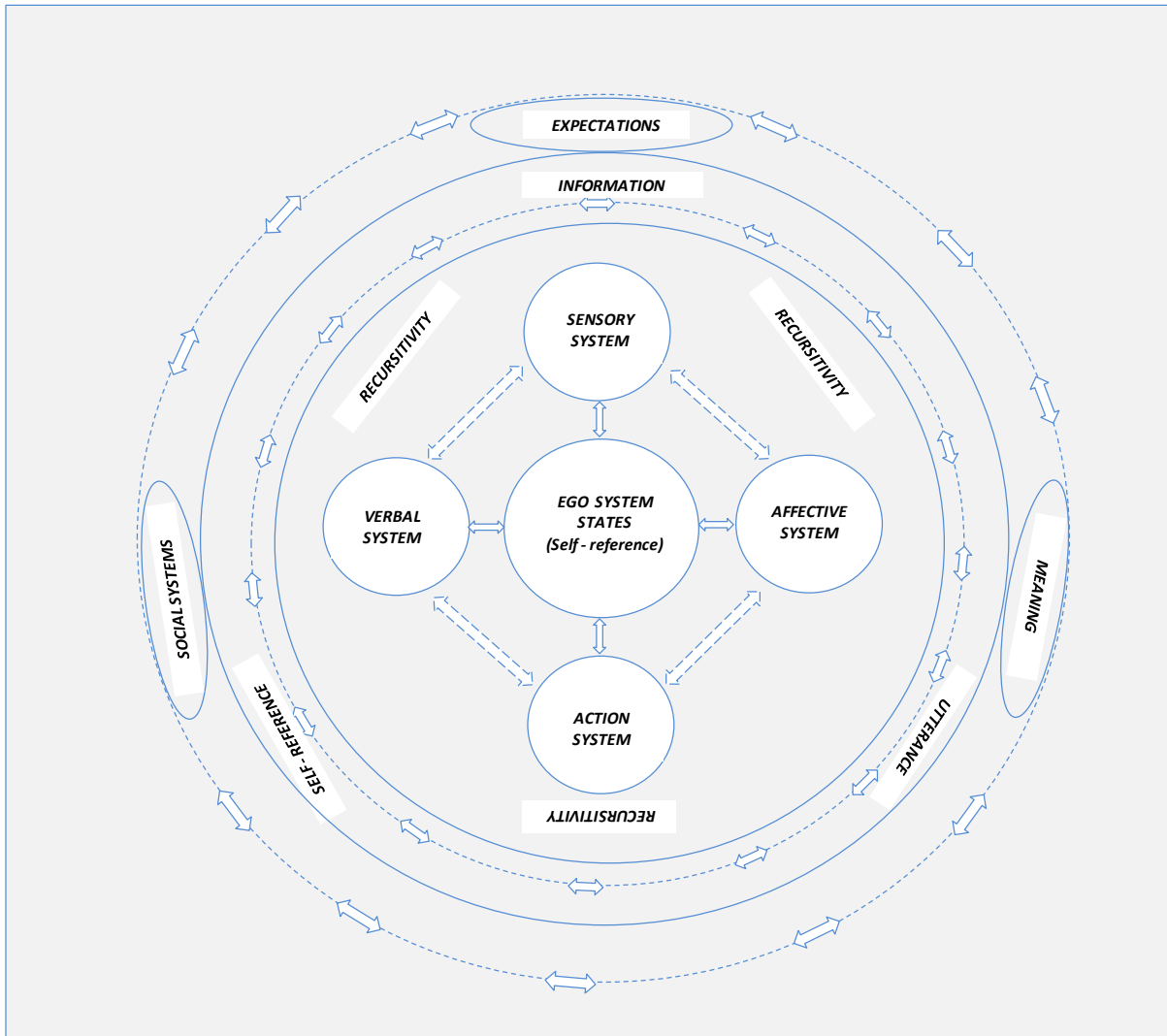


Figure 4.5: A new conceptual model to illustrate communicative systems and processes within individuals as composite unities of biological and mental systems

It has been stated in reference to the unity of the synthesis of communication (information, utterance, and understanding), that communication is self-referential, and hence that meaning (understanding) is self-referential. This means that the individual can attribute meaning to the selections involved in the synthesis of communication selections only in relation to her or his own operationally closed, self-creating mental and biological systems. It has also been shown in the previous chapter and referred to in other discussions thereafter that in terms of the information input-output ratio described by McCulloch (1965:147) most of the information input into the individual's composite unity of biological and mental systems occurs unconsciously. With reference to and with the acknowledgment of Ashby's comment that, in view of the sheer volume of information present at all times, a researcher should at best aim "to achieve partial knowledge that, through partial over the whole, is none the less

complete within itself, and is sufficient for his ultimate practical purpose” (Ashby 1957:106). Following this prompt, the communication model in Figure 4.5 aims to show how some of the selections made by individuals in the process of communication can be related to the associated systems identified by Carlston (1994) and to the ego system as the central self-referential system, as considered by Mayer (2001).

Krippendorff (1994) deliberates a recursive theory of communication and argues that theorising about communication is communication in itself, and therefore that the observer has to account for her own observation in her communication about communication and communication theory. In reference to both Krippendorff (1994) and Guddemi (2000), Bopry (2007) says that interpretation rather than input is a central feature of second-order cybernetics. She also makes reference to Guddemi’s term “inter-referentiality”, which means that terms generate their own meaning in relation to each other within operationally closed systems (Bopry 2007:32). She argues further that *representation* is at the core of semiotics and shows the distinct relationship between second-order cybernetics and semiotics¹⁴⁶. It is reiterated here that Carlston’s theory of associated systems includes representative systems in particular, and refers to the representation of persons specifically, some of which are applied in the discussion in this section. However, the primary mental systems referred to in this discussion include the perception of information in general, which cannot be separated from perception as such. Therefore, the application of associated systems in this discussion utilises Carlston’s mental systems typology as a point of reference, but extends it to include the general perception of information by individuals. The reason for this is that, as Krippendorff (1996:311) observes, cyberneticians should apply the principles of cybernetics to themselves. With the recognition and consciousness of the totality of information that impacts on the self-referential systems involved in the communication in this study, the second-order cybernetic stance adopted is reflected in the elements and processes observed in the observer as well as other observers during this study.

In view of these considerations, it is noted here that the illustration of communication as a self-referential process in relation to the creation of social systems in Figure 4.5 is based on the interpretation of the theoretical premises presented in this study and therefore that the terms described in this discussion are inter-referential insofar as they are related to each other within a communication theory framework, with the acknowledgment that these terms are adapted to each other in relation to this discussion. A brief description of each element

¹⁴⁶ See Bopry (2007) for a comprehensive discussion on the relationship between second-order cybernetics and semiotics.

and concept in this model orients the discussion in this section, and it commences from the centre of this model.

4.7.1 Definition of concepts and elements

In reference to inter-referentiality, and in consideration of the broad meta-theoretical framework of cybernetics in this study, as well as the broad theoretical framework of communication theory as a field in itself, it is imperative to describe the concepts and elements in Figure 4.5 as they relate to the integration of second-order cybernetics and the specific, yet not exclusive, communication theory of symbolic convergence. Krippendorff (1996:316) articulates the challenge the observer meets in any intellectual inquiry such as this, where theoretical explanations for the phenomena under investigation have to be selected, as he states that “there always are far too many equally valid explanations, theories, or models of observed behaviour to make intelligent selections.”

The description of the elements and processes illustrated in Figure 4.5 aims to provide a link to the arguments presented in the previous chapter and provide further background to the links between Luhmann’s theorising about communication and symbolic convergence theory in particular further on in this conversation, without excluding the relevance of, or relation to, other communication theories.

4.7.1.1 Ego system states (self-reference)

Starting from the centre of Figure 4.5, the individual’s ego system can be identified as the central self-referential mental system that is linked to all other self-creating biological and mental systems within the individual. As an extreme example of the relationship between biological systems and ego system states, it can be pointed out when individuals take in chemical substances, such as alcohol, they may exhibit distinct behaviour, such as road rage, and that such behaviour can be attributed to the absorption of such chemical substances. In such cases, it is clear that the biological system impacts on the ego system state and that it can result in the differentiation between child, adolescent, adult, and parent ego states, referred to under 3.6.4.4. The ego system state is necessarily co-determined by the other primary mental systems illustrated in Figure 4.5. It can be said, in reference to the discussions on associated systems theory as well as personality theory, that the individual’s personality determines the variations between different ego system states and that these ego system states impact on the information input experienced by the other mental systems, with specific reference to those identified in Figure 4.5, and hence on the information output.

A discussion of the ego system as the central self-referential system necessarily incorporates various considerations that relate to this system. In view of the persuasive orientation in this discussion it is deemed necessary to make reference to one of the central concepts in persuasive communication theory, namely cognitive dissonance. Festinger (1957:13) describes cognitive dissonance¹⁴⁷ as perceived inconsistency between cognition and behaviour, and this can be related to Luhmann's discussion of bifurcation points, where understanding completes a synthesis of communication, and meaning requires action of some kind. However, while the theory of cognitive dissonance is generally known, another related concept within Festinger's theory is counter-attitudinal advocacy,¹⁴⁸ which relates directly to the ego as the central self-referential system as it revolves around self-persuasion. In brief, counter-attitudinal advocacy can be described as the act of persuading the self in the process of persuading another, with several implications that are not considered in this section. It is more relevant to consider that perceptions of dissonance within individuals are unavoidable because of the linkage between and among operationally closed mental and biological systems that cannot account for the others' operation since communication synthesis within the individual occurs only with the selection of conscious understanding.

Theories that relate to ego involvement,¹⁴⁹ such as the elaboration likelihood model¹⁵⁰, and social judgement theory¹⁵¹, which are theories of persuasion, provide further evidence of the links between the ego system and individual action.

Other factors that can be related to the ego system and ego system states are self-esteem¹⁵², need for achievement¹⁵³, need for affiliation¹⁵⁴, self-perception¹⁵⁵ or self-

¹⁴⁷ See O'Keefe (2002:80-81) for a discussion on dissonance and decision that can be related to ego system states and the selection of information within the unity of communication synthesis.

¹⁴⁸ See the discussion on experimentation relating to counter-attitudinal advocacy in Aderman and Brehm (1976).

¹⁴⁹ See Gass and Seiter (2011:101-103) for their comments on ego-involvement, which relates to the explanation of selections within the synthesis of communication.

¹⁵⁰ See Petty and Cacioppo (1986) for a comprehensive discussion of the elaboration likelihood model of persuasion and personal relevance/involvement in the operation of cues, which indicates the relationship between the ego and visual/sensory systems.

¹⁵¹ See Griffin (2009:181-192); Larson (2010:104); Gass and Seiter (2011:101-103); and Littlejohn and Foss (2008:75-76) for contemporary applications of social judgement theory and its relation to the attribution of meaning as theorised by Luhmann (1995).

¹⁵² See Bettinhaus and Cody (1986:42-43) for a discussion on self-esteem that can provides further insight into the relationship between the ego and affective systems and individual action, and is considered within personality theory.

¹⁵³ The need for achievement is another topic within personality theory that is related to motivation in persuasive communication theories. See Johnston (1994). Also see Slater (2002) for a discussion on involvement as goal-directed strategic processing within the framework of the elaboration likelihood model.

¹⁵⁴ The need for affiliation can also be personality theory. See Verderber (1991:12). It is related to motives within the theory of the coordinated management of meaning, and also becomes apparent in discussions on symbolic convergence theory in Bormann (1972; 1996).

observation, and similar concepts across a broad range of social disciplines. The mental systems within the individual can all be related to certain attitudes, beliefs, and values¹⁵⁶ that are all relative to all the other systems the individual interacts with on different levels. These aspects cannot be discussed individually here, and therefore specific considerations relating to the ego system will be pointed out during the progression of this conversation where relevant. The section here below considers some factors related to the sensory or visual system, following the discussion on associated systems theory in the previous chapter.

4.7.1.2 The sensory/visual system

It was shown in the discussions on information theory, complexity theory as well as associated systems theory in the previous chapter that the information input exceeds the information output by far and it has been argued that individuals therefore perceive most information unconsciously, and further that as an operationally closed system the visual/sensory system constitutes much of the information within the unity of communication synthesis.

It can also be argued that the visual/sensory system is directly linked to an individual's self-observation as far as appearance, self-esteem, and all aspects relating to the perception of self in relation to the perception of others is concerned. In this sense, the concept of "identification" as contained in the definition of persuasion earlier can also be related to the visual/sensory system.

In reference to Luhmann's argument that the synthesis of communication necessarily includes understanding but also misunderstanding, it can also be considered that the processing of visual information may contradict verbal information because of these systems' operational closure respectively. The visual/sensory system can therefore be differentiated as a source of conflict within individuals, in relation to the other systems. In the same way, it has to be reiterated that non-verbal communication constitutes the dominant part of communication, and hence any communication synthesis, because of the information input-output ratio indicated in the previous chapter, and that this necessarily has to impact on all other mental and biological systems to a significant degree. For example, when an individual witnesses a event such as a partner's infidelity, the visual/sensory system may

¹⁵⁵ Bem's well-known theory of self-perception (1972) corresponds with the understanding of the ego system. Self-perception closely relates to self-observation as it has been described from a second-order cybernetics perspective in previous discussions.

¹⁵⁶ Attitudes, beliefs, and values are central concepts within most theories of persuasion, although these are not conceptualised for the specific purposes of the conversation in this chapter.

process the image of an embrace, which transmits information to all other systems, and subsequently these operationally closed systems transmit information to the central system, namely the ego system, which then expresses the selection of understanding to complete the communication synthesis in the form of meaning and subsequent action. As it applies to all other systems, dimensions of culture, time, personal traits, and the ever fluctuating ego system states all co-create the communication individuals perceive at any given time.

In reference to the theory of the coordinated management of meaning discussed earlier, it can be seen how the visual/sensory system co-creates the different types of logical force that determines the selections of information, utterance, and understanding in the communication synthesis. If it is further considered that the hierarchies of contexts identified in the theory of the coordinated management of meaning can be described as points of recursivity at which selections are made, it can be assumed that the visual/verbal system plays a significant role in the selection of communication contexts, with specific reference to the implicative force that co-creates further communication.

The use of metaphors provides a direct link between visual/sensory and verbal systems, and this is discussed next.

4.7.1.3 The verbal/semantic system

The verbal/semantic system has been described in the previous chapter as the system that perceives processes symbols such as language, and it has also been linked to constructivism. The discussion on Chomsky's grammar and biolinguistics also indicated that forms of representation may appear at pre-reflective cognitive level in cybernetics. In this regard, Bopry (2007:31) states: "Symbols make their appearance in the reflective domain of communication – they are a product of cognition that makes language possible". It is therefore accepted that the verbal/semantic system enables the processing of symbols, and that the meaning attributed to such system is learned continuously. In the discussion on Piaget's theory on cognitive development in the previous chapter, it was shown that the foundations of the verbal/semantic systems are established at more or less the same time as the individual's personality is fixed. It was also argued in the previous chapter that considerations regarding language are infinite, and therefore only some were selected for the purposes of the theoretical discussions that followed. It is reiterated here that those considerations necessarily apply to the discussions in this chapter, but also to the understanding of the verbal/semantic system in general. Although Luhmann insists that he

does not include considerations relating to psychological processes in his discussions, he makes the following observation relating to language:

Language is also not just a means of communication, because functions in psychic systems without communication. Its true function lies in generalizing meaning with the help of symbols that – rather than designate *themselves* – *are themselves* what they perform. Only in its function as a medium of communication – which, from the viewpoint of evolution, seems to have been its original function – is language bound to coding, and thus to acoustic or optical signs for meaning. (Luhmann 1995:94)

It follows from this explanation that language increases the comprehensiveness of communication beyond the sphere of perception. Krippendorff (1996:311) says that observational accounts are constructed in language, which can be related to Deetz's argument that language constitutes objects and thus reality, as argued in the previous chapter. It is also noted that the link between the verbal and visual/sensory system is apparent in the distinction between utterance and information, or hetero-referentiality and self-referentiality, insofar as the content of (verbal) information is assessed in terms of its relation (in other words, *how* it is said) that provides a link to the affective system, insofar as the emotion evoked by the unity of the synthesis of communication is concerned.

In view of Luhmann's definition of language as the continual actualisation of potentialities (Luhmann 1995:65), and related to Von Foerster's¹⁵⁷ discussion on natural magic (Von Foerster 2003:325-338) in which he demonstrates the transformations language enables, it has to be considered that individuals self-create understanding and meaning, that is expressed in language, and also that individuals co-create language and meaning and social systems as a result of these meaning-constituting actions. Symbolic convergence theory, with its initial emphasis on individuals' actions in small group settings, provides insight into these co-created meanings that have been described earlier as fantasy themes and rhetorical visions. Luhmann's reference to "potentialities" captures the essence of meanings co-created in language, with particular reference to NDSOs, as it is shown later in this conversation.

It has been said in the previous section that a direct link between visual/sensory and verbal/semantic systems could be observed in the use of metaphors.¹⁵⁸ The association between linguistic symbols and visual images in the use of metaphors is generally acknowledged. It is therefore considered sufficient to recognise the link between

¹⁵⁷ Also see Von Foerster's article entitled "Molecular Ethology, An Immodest Proposal for Semantic Clarification" (2003:133-167) in which he identifies a distinction between cognitive processes that are reflected in a difference in semantic structure of the linguistic elements, which represents different nouns for things distinct in form and shape, and verbs for change and motion.

¹⁵⁸ See Larson (2010:152-156) for a discussion on sensory language and metaphoric style.

verbal/semantic and visual/sensory systems, which can be also be linked to the processing of information within the affective system, as discussed below.

4.7.1.4 The affective system

Returning now to the description of the affective system in the previous chapter, the relationship between communication and emotion requires more specific articulation for the purposes of the conversation in this chapter. It can be deduced from the description of the different types of logical force in the discussion on the theory of the coordinated management of meaning earlier that the implicative force as an indication of the selection of understanding that completes the communication synthesis can be linked to operations within the operationally closed, self-creating affective system. Luhmann (1995:274) makes the following observation that is related to this discussion insofar as it corresponds with the understanding of mental systems as representative to a certain degree:

Emotions are not representations that refer to the environment but *internal* adaptations to *internal* problem situations in the psychic system that concern the ongoing production of the system's elements by the system's elements. Emotions are not necessarily formed in an occasional spontaneous manner; one can be more or less disposed to an emotion-laden reaction.

Besides confirming the unavoidable consideration of internal system states, this observation implies that the perception of emotion can be determined by biological, mental, as well as social systems, jointly and respectively. Further insight into the construction of emotion, and hence the affective system, can be gained from the discussion in Littlejohn and Foss (2008:85-87), as well as the discussion on affective influences on cognition in Fiske and Taylor (2010:341-360). In reference to the theory of the coordinated management of meaning again, and specifically to the self-concept as a context, or recursive point in meaning, individuals are generally conscious of their affective systems operation insofar as they experience their ego system states. In other words, individuals are conscious of how they feel, unless of course they attempt to suppress or ignore such system states. It is also generally known, from self-observation, that biological systems impact on the affective system which co-creates the ego system states. An individual who experiences emotions such as fear, anger, guilt, or anxiety operates from a particular ego system state, such as the child state, for example, which can be induced by biological system states, such as a chemical imbalance. As it is shown in theories relating to the social construction of emotion, emotional responses can be conditioned, and hence can be auto-referential in this sense. It can be observed further that the affective system can be triggered intentionally, or even unintentionally, as individuals' affective systems are operationally closed and the fluctuations that may occur between different ego system states and other biological or mental systems'

states are indeterminable. Hence individuals' behaviour cannot be predicted with any certainty.

It can therefore be concluded that affective systems represent complex system formation to the extreme, as actions that can be attributed predominantly to emotional causes abound and have a significant impact on all social systems, jointly or respectively. Without further elaboration it is concluded that the affective system can best be described in this conversation as the total information input from all other systems that can be most directly linked to the ego system as the central self-referential system. The discussion on the action system below aims to provide a link between the previous discussions on action and communication in this chapter, as well as the description of the action system in the previous chapter.

4.7.1.5 The action system

In terms of associated systems theory, the action system has been described as having the characteristic of a behavioural response. The relationship between action and communication has also been deliberated in the discussion of the theory of coordinated management of meaning. The discussion of Luhmann's argument that communication is not action below, which is also explained by way of an extensive example, provides further clarification of the operation of the action system. At this point, it will suffice to say that individuals often cannot explain their actions (either to themselves or to others), and therefore it is not possible to determine direct causality insofar as individual actions or behaviours are concerned. The non-linear relationships that are created between and among biological and mental systems, as explained in the discussion on complexity theory in the previous chapter, literally mean that anything is possible as far as individuals' actions are concerned. As such, actions manifest meanings that have infinite possibilities and implications for further meanings and hence actions. It can be deduced that the information processing or computation that occurs within the *operationally closed* self-creating visual/sensory, verbal/semantic, affective, and action systems transmits further information (as computed within each operationally closed system) to the central self-referential system – the ego system. The ego system experiences a particular ego system state at any given time. The interpretation of the different information received from the different internal systems creates the synthesis of communication within the individual, namely understanding and meaning as an entirely self-referential accomplishment or outcome. This communication synthesis that occurs within the individual's ego-system is transmitted as further information to the different mental (and biological) systems. In this way it can be argued that the

individual coordinates her own actions (as representation of internal self-referential communication synthesis) and therefore her own meanings that she and others can observe, and therefore self-creates reality in relation to “potentialities” that have been created in previous communications. The example in the discussion of the argument that communication is not action provides further clarification.

From the stance that action represents meaning, and that meaning indicates specific points of recursivity, as defined in the previous chapter, the discussion below re-assesses the application of recursivity as it relates to the discussions that follow and the broader conversation in this chapter.

4.7.1.6 Recursivity

Recursivity has been conceptualised in the discussion of second-order cybernetics in the previous chapter and has also been related to discussions throughout this chapter. It has been stated previously in reference to Krippendorff’s recursive theory of communication that self-reference can be conceptualised most clearly as the inclusion of the observer in her observations, and it has been shown throughout the discussions in this chapter that it constitutes the points of reference or recursivity as such. Figure 4.5 therefore aims to illustrate that recursivity is the process which relates all information, utterance, and hence understanding to the self-reference that defines any operationally closed self-creating (autopoietic) system. As a composite unity of biological and mental systems, the individual can therefore only (consciously) make the selection of understanding as the accomplishment of the unity of a communication synthesis in relation to the (conscious and unconscious) information, utterance, and perhaps understanding, received from other operationally closed, yet informationally open, self-creating systems. Similarly, social systems self-create such points of recursivity that co-creates shared meaning insofar as it manifests in coordinated actions, even though it is accepted that, in terms of second-order cybernetics, the term “structural couplings” may be more apt, as indicated in the previous chapter. Although Luhmann makes no reference to the term recursivity, his claim that “communication is possible only as a self-referential process” corresponds with the explanations of recursivity presented in the discussions in this study (Luhmann 1995:143).

It was shown in the discussion on complexity theories and their application to complex systems within the individual as a composite unity of operationally closed biological and mental systems that complex systems also self-create continuously and specific reference was made to complex adaptive systems, dissipative structures and chaotic systems. In this

regard, it can be argued that because complex systems are open systems within operationally closed systems, they continuously constitute points of recursivity within the individual through predominantly unconscious processes that create information that is transmitted to the ego system. This may be as a result of the temporal dimensions of recursivity. In other words, on both conscious and unconscious levels of systems operation the dimensions of past, present and future are co-created on a continuous basis. In reference to the temporal dimension and complexity, Luhmann (1995:47) states:

Temporalization of complexity leads to a selective ordering of the connection between the elements in temporal succession. ..., it requires a temporalization of the ultimate elements in the system: they must be identified with reference to points in time, as events, information, or actions, and must therefore become subject to the irreversibility of time.

It is of particular significance to observe that Luhmann refers to complexity within psychic as well as social systems in his discussion, and it can be deduced from his arguments that temporal dimensions – that is, past, present, and future – create points of recursivity. With reference to the discussion on complex systems formation in the previous chapter, it can be considered that the dimensions of past, present, and future may initiate complex systems creation within individual as well as social self-creating systems. Information individuals perceive in the present is continuously differentiated in relation to past and future, as Luhmann (1995:75) explains:

..., the self-reference of meaning is respecified dimensionally, in accordance with differences specific to the dimensions. The future is future only as the future of a present-with-past; but it is not the past and does not in the end change into it (as cyclical models suggest). My consent is only in relation to your consent. But my consent is not your consent, and there is no objective argument or rational ground (again from the object domain) that could finally guarantee this coincidence. Once the evolution of meaning has been established this separation, self-references must be articulated within a specific dimension.

Luhmann (1995) considers various other dimensions, such as the social dimension, in relation to each other in his discussions, but the purpose of this citation here is to show how various contexts or points of recursivity are created within individuals' internal complex systems, and that time is a most significant dimension for consideration in this discussion, as it is also a dimension within symbolic convergence theory. The example below aims to provide further insight.

When an individual experiences an emotion such as depression it relates to communication contexts (points of recursivity) in the past, present as well as the future. In the present it is experienced as an ego state that is created by the information received from other systems. These contexts or points of recursivity can be triggered by events in the past, in relation to

present or future, or in any relation to the other. When the individual then commits suicide, for example, it can be argued that by the principles of complex systems formation, too many points of recursivity may create chaotic systems and that the individual's inability to control the confusion experienced in such a state may induce the action system to escape from such a high entropy level. The ego system state, which is connected to all other system states, informs other biological and mental systems on a continuous basis. The information processing within these various operationally closed self-creating systems within the individual never stops, even when the individual loses consciousness, when she goes to sleep, for example. An emotional experience such as depression is necessarily related to unpleasant past experience that is in turn related to a present situation and the unbearable anticipation of similar emotional experience in future. This can be explained in terms of the internal complex systems that create multiple points of recursivity within the individual, which can, in relation to the ego state at any given time, become chaotic systems. Because the majority of information input occurs on the unconscious level, individuals experience confusion or the inability to control their verbal/semantic, action, affective, or visual/sensory systems as a consequence of the ego system state, as the primary self-referential system. The articulation of information, utterance, and understanding below presents a similar explanation. When an observer consciously observes these systems in the process of observing herself, third-order cybernetics emerges as referred to in the previous chapter. The fundamental understanding in this section is that complexity within individual as well as social systems are related to recursivity, and that individuals self-create and co-create recursivity, on both conscious and unconscious levels, in relation to dimensions of time.

4.7.1.7 Information, utterance, and self-reference

As far as the synthesis of the unity of communication is concerned, the unity of the selections of information, utterance, is realised as understanding when selections from within each operationally closed mental system are *transmitted* to the central self-referential system, namely the ego system, in whichever state it is operating at any given moment. The term transmitted is used here because at this stage of the communication process, the synthesis does not occur yet. It is only when the individual perceives meaning or understanding that a communication synthesis occurs. It can therefore be deduced that the individual operationally closed mental systems do not constitute their own communication synthesis individually, but that the ego system constitutes the selection of understanding which is self-referential in relation to the affective system (predominantly), which determines how the individual *feels* about the communication at any given moment. It is reiterated again

that the process of attributing meaning is also directly related to the various operationally closed biological systems.

4.7.1.8 Expectations, social systems and meaning

It has been shown in the discussion on the theory of the coordinated management of meaning that understanding or meaning does not necessarily imply *shared* understanding of any meaning, and that it was the *perception* of meaning that coordinates action. The phenomena under investigation in this study, namely NDSOs, represent individuals' *actions* and hence *expectations* that are coordinated insofar as they continuously form groups, as shown in Chapter 2. In terms of the communication synthesis discussed earlier, it was shown that the selection of utterance relates to the action component within the unity of communication synthesis. Utterance has also been described as it featured within speech acts theory as well as the theory of the coordinated management of meaning.

As Figure 4.5 aims to show, the primary purpose of the discussions in this section is to direct the conversation towards the co-creation of meaning, which co-creates social systems such as NDSOs, based on Luhmann's argument that meaning creates psychic and social systems (Luhmann 1995:37-38). This is accomplished by considering certain theoretical assumptions about communication, language and meaning that relate to the communication synthesis referred to throughout this chapter and that can be further developed within the framework of symbolic convergence theory. From the understanding that psychic (mental) systems and social systems have evolved together and that one kind of system is necessarily the environment for another kind of system at any given time, Luhmann (1995:59) makes the following observation:

Persons cannot emerge and continue to exist without social systems, nor can social systems exist without persons. This co-evolution has led to a common achievement, employed by psychic as well as social systems. Both kinds of systems are ordered according to it, and for both it is binding as the indispensable, undeniable form of their complexity and self-reference. We call this evolutionary achievement "meaning".

With reference to these social systems individuals create, Figure 4.6 here below provides a link between Network Theory, illustrated in Figure 2.9 in chapter 2, and Figure 4.5 that aims to create an understanding of the multiplexity of individual and hence social systems. Figure 4.6 also aims to show how the co-evolution Luhmann (1995:59) refers to occurs and how meaning is co-created through communication. The integration between Network Theory and the new conceptual models presented in this chapter will be continued and developed further in chapter 5.

The purpose of the discussions thus far was to articulate the multiplexity of individuals clearly and to create a theoretical background for the description and application of a broad communication theory, namely symbolic convergence, from a second-order cybernetic perspective, as well as to explicate the implications related to the concepts of self-reference and recursivity in particular with the understanding that communication is central to these concepts. The section below discusses symbolic convergence as it occurs in NDSOs from a second-order cybernetic perspective, with the purpose of providing a theoretical explanation for the existence of NDSOs as self-creating systems in the following chapter.

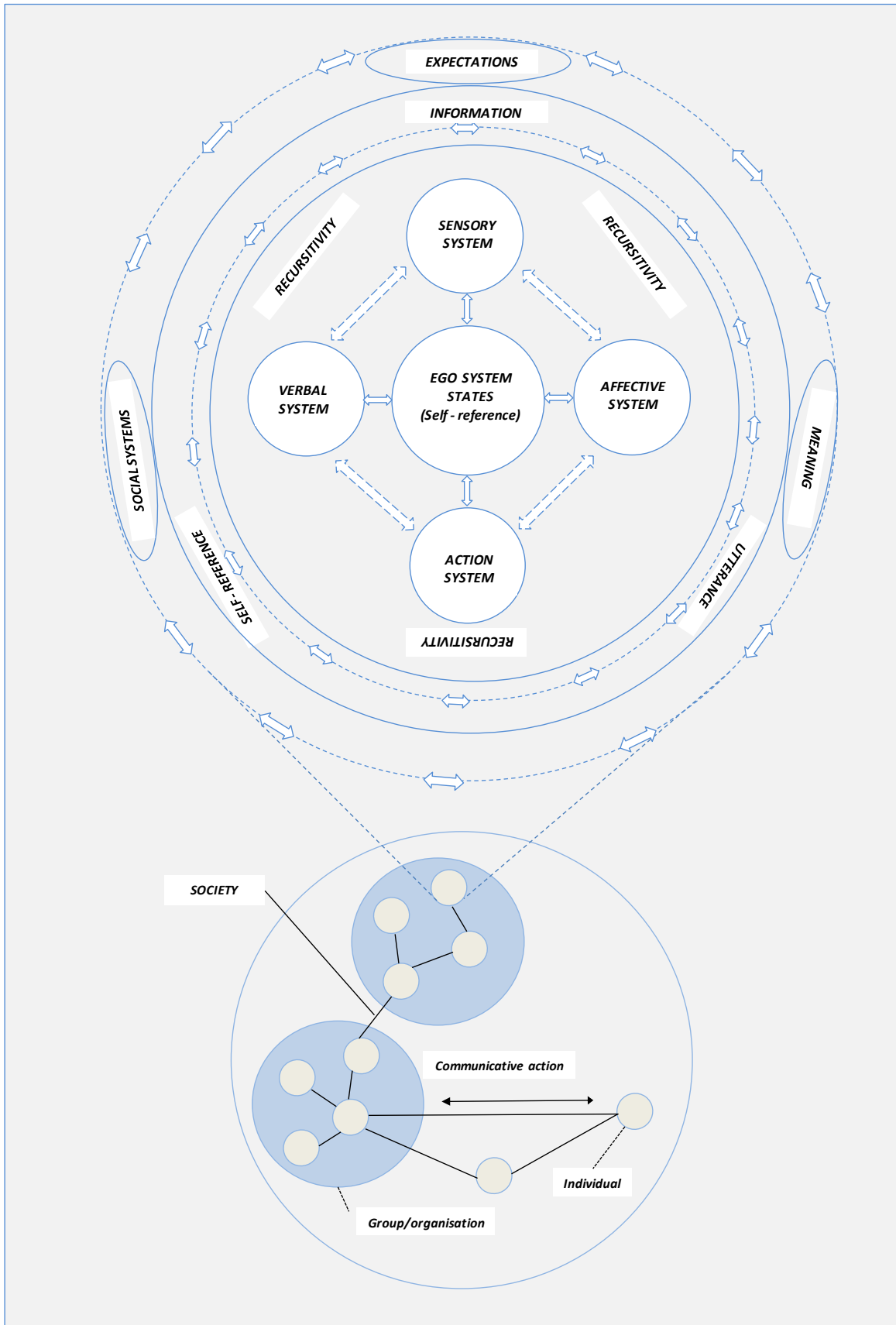


Figure 4.6: An integrated model to illustrate how communication processes create networks and social systems

4.8 A DESCRIPTION OF SYMBOLIC CONVERGENCE THEORY FROM A SECOND-ORDER CYBERNETIC PERSPECTIVE

Further to the brief description of symbolic convergence theory earlier, a discussion on the functioning of symbolic convergence theory aims to provide further insight into the second-order cybernetic description of this theory. This description in turn aims to show how second-order cybernetics as a meta-theoretical perspective can be applied to establish a deeper epistemological grounding for the interpretation of communication theories in general.

People are storytelling beings or *homo narrans*, and apparently have an innate tendency to share fantasies. Bales (1970) argued that two processes account for group fantasy sharing, namely similar psychodynamic concerns brought to the group, and common problems that developed in the course of working and communicating together that are so tension-producing and threatening that they feel reluctant to address them openly. Bormann (1990) added a third explanation, saying that members may intentionally develop dramatising messages that are adapted to the other group members and result in a chaining process.

The term “dramatising messages” derives from Bales’s (1970) identification of a content analysis category to describe group communication characterised by an increased tempo of conversation, excitement and members interrupting each other, laughing and often forgetting their self-consciousness (Bormann 1972:397). It was noted that the tone of the meeting, that would often be quiet and tense prior to the dramatisation, would become lively, animated and boisterous, changing the verbal and non-verbal communication and indicating participation in the “drama” that unfolded in the group meeting (Bormann 1972:397). Bormann, Knutson and Musolf (1997:255) describe dramatising messages as rich in imaginative language, consisting of puns, word play, analogies, figures of speech, stories, etc. that cause a chain reaction to take place. In other words, the dramatising message becomes a group fantasy chain. Bormann (1990:104) provides a clear description of group fantasy chains:

Group fantasy chains are those moments of dramatization in which all or most of the members participate. You should not get the impression that the term fantasy as used here means that the communication is bizarre like science fiction, or unrealistic like a cartoon, or make-believe like a fairy tale. A group fantasy may and often does deal with real-life situations and people.

A fantasy chain causes members to respond in an emotionally appropriate way, expressing emotions such as happiness, sadness, anger, pleasure, or whatever relates to the initial mood of the dramatisation. Bormann, Knutson and Musolf (1997:255) explain that a clear distinction between a message that contains a dramatisation and a shared group fantasy is

central to symbolic convergence theory. The shared group fantasy only comes about as a result of the audience members actively participating, modifying, and sharing the drama publically, as Bormann, Knutson and Musolf (1997:255) describe:

Dramatizations that are shared result in the symbolic convergence process and create common ground that serves to unite the participants. A shared group fantasy is a dramatizing message that has been publically displayed and has been appropriated by the sharers so that each has, as it were, made the dramatization part of his or her consciousness.

The basic communicative process by which people experience symbolic convergence, then, is the dynamic process of sharing group fantasies, and the moments when communicators are caught up in the “sympathetic” participation of a common drama are fantasy chains. Bormann (1982:51) explains that the result of such symbolic sharing is a social reality common to the participants in which they describe their experience in terms of narrative accounts, analogies, metaphors, and so forth. He adds that the fossilised remains of shared group fantasies can be found in the texts of oral or written messages in the form of fantasy themes or fantasy types.

Fantasy themes are described as consisting of a dramatising message in which characters enact an incident or a series of incidents in a setting somewhere other than the here-and-now of people involved in the communication episode. Bormann (1982:52) says fantasy themes are often narratives about living people or historical personages or about an envisioned future. A fantasy theme is a way for people to make a common experience understandable or visible to the group mind and to shape it into social knowledge (Bormann 1982:52)

Dramatising messages that are not shared by group members have no impact on the content of the group’s shared fantasies, and it may be useful to the critic to look at those dramatisations that are rejected, since it may illuminate a group’s rhetoric and may serve as a way to draw rhetorical boundaries among communities of people (Bormann, Knutson & Musolf 1997:255).

Fantasy types develop when a number of similar scenarios or outlines of the plots of fantasies, including the particulars of the scenes, the characters, and situations, have been shared by the members of groups or larger community. It is a stock scenario repeated again and again by the same characters, as is the case in small groups in direct selling. A fantasy is repeated and developed by members of a society until it becomes a rhetorical vision of reality. Cathcart (1998:100) explains more specifically that when a particular set of fantasy

themes is worked into public speeches, conveyed or disseminated by the mass media, and chained through public audiences, it forms a rhetorical vision. Bormann (1972) summarises the description of a rhetorical vision as a unified combination of various shared scripts which provides a broader view of a culture's social reality. He adds that the rhetorical vision is often integrated by a master analogy that pulls the various elements together and is indexed by a slogan or a label. People who participate in a rhetorical vision form a rhetorical community. A rhetorical vision can also be described as the objective a group of people strives to achieve, and as such "financial freedom", for example, would be a rhetorical vision.

Symbolic convergence theory explains that rhetorical visions go through a five-stage lifecycle: consciousness creating, consciousness raising, consciousness sustaining, vision-declining, and vision implosion.

In the first stage, people come to symbolic convergence and create a common consciousness. New members of direct selling organisations are usually presented with a rhetorical vision from the outset, either by the mediated communication of the particular organisation, or by the individual who recruits them. In direct selling, symbolic convergence may occur in an interpersonal context, although it is more likely to occur in small group settings.

If the members of the new rhetorical community share a proselytising fantasy type, they will often embark on a programme of consciousness raising (stage 2) in which they intentionally plan their persuasive efforts to gain converts. Group distributors in network direct selling organisations use particular fantasy types to generate fantasy chains that engage group members, as explained below.

Bormann (1982:58) says consciousness creating and consciousness raising require people who have the rhetorical skills required to present new scenarios in an attractive form so people will come to share the new fantasies. New members of NDSOs who find themselves in sales groups are pulled into sharing the basic fantasies of the group, and under pressure to conform to the group their own fantasies are reoriented to converge with the consciousness of the group.

In the consciousness-sustaining stage (stage 3) rhetorical visions adapt to changing events and provide rebuttals to competing visions. New members join direct selling groups, some drop out while others are retained and become older members of the group. In many

network direct selling organisations, particularly on the group and area distributor levels, people remain members for many years and the rhetorical vision they share remain stable.

Stage five is characterised by vision implosion. Rhetorical communities tend to disintegrate, as occurs in direct selling, where the drop-out rate is extremely high. Unsuccessful members may conclude that their chances of success are slim and may withdraw from the group, or as Bormann describes it, may become lukewarm or leave for other visions. "In such circumstances most communities will evolve communication episodes designed to "renew the faith, celebrate the community, and to rekindle the zeal that accompanied the original sharing process (stage 3)" (Bormann 1982:59). If such efforts are successful they create new rhetorical visions and translate impulses into movements and campaigns.

In stage five the rhetorical vision implodes and marks the end. The long existence and sustenance of the direct selling industry indicate that it somehow sustains its rhetorical visions. It is more common for smaller groups in network direct selling organisations to reach this stage because of the high drop-out rate.

Bormann (1982:60) explains that consciousness creating (phase 1) and consciousness raising (phase 2) pose much more complicated rhetorical problems and require more complicated rhetorical applications usually involving intense two-person and small-group meetings. Interestingly enough, such intense two-person and small-group meetings are exactly what occur in direct selling, since new recruits are initially approached by people they are well acquainted with, who then introduce them to a small group (a sales team or trainee team), where they experience intense communication relating to the particular NDSO involved. Much emphasis is placed on regular meetings in NDSOs so that members continuously engage in the shared group fantasy themes and the shared rhetorical visions.

Despite the perception apparent intricacy that may arise from the various concepts contained in the theory, Bormann (1996:89) provides a summary of symbolic convergence theory that captures its simplicity:

The power of symbolic convergence theory stems from the human tendency to try to understand events in terms of people with certain personality traits and motivations, making decisions, taking action, and causing things to happen. We can understand a persona making plans to achieve goals and succeeding or failing to do so, because we often interpret our own behavior in that way in our personal fantasies. We often daydream about achieving our desires and think up plans to achieve our goals. We tacitly assume that our choices and our plans are motivated, under our control, and that they can make a difference. Interpreting events in terms of human action allows us to assign responsibility, to praise or blame, to arouse and propitiate guilt, to hate and to love. When we share a fantasy we attribute events to human action and thus

make sense of what prior to that time may have been a confusing state of affairs, and we do so in common with others who share the fantasy with us.

In this way people come to symbolic convergence on matters and as a result they envision their worlds in similar ways. When they have developed common ground they can talk to each other about their shared interpretation with code words or brief allusions. Bormann (1982:52) says that members of rhetorical communities develop a shared meaning or use of language that he refers to as “inside jokes” or an “inside-cue phenomenon” (Bormann 1996:89), and that they will tend to respond to messages that are on the same wavelength as their rhetorical vision. Bormann (1996:90) gives further clarification of the term “convergence” as he states:

Convergence refers to the way, during certain processes of communication, two or more private symbolic worlds incline toward each other, come more closely together, or even overlap. If several or many people develop portions of their private worlds that overlap as a result of symbolic convergence, they share common group consciousness.

Griffin (2009:395) says the term “convergence” can be interpreted as a speaker’s desire to break down cultural barriers that may evoke favourable responses from listeners. People’s responses to others’ communication hinge not only on the behaviour they perceive but also on the intention or motive they ascribe to them for speaking the way they do (Griffin 2009:394). In direct selling new members are introduced into small groups, where they have no history with the other group members. The attribution theory developed by Heider (1958) and Kelly (1965) explains that people assign causes to behaviour and that they do so systematically. In other words, people attribute characteristics to other people based on the way they speak and act. Newcomers in direct selling groups are generally welcomed by group leaders, who address them with friendly, positive and enthusiastic speech – and they are therefore likely to form positive opinions that encourage them to engage in the group’s communication.

Bormann (1970:397) says Bales’s discovery of the process by which a zero-history group used fantasy chains to develop a common culture is a key discovery in symbolic convergence theory. Bales discovered that new group members would ignore dramatising messages that did not correspond with their here-and-now problems or individual psychodynamics. He found that comments that got members to empathise, or to respond emotionally, not only revealed members’ common interests but also made them known to the other group members. As Bormann (1972:397) states: “When group members respond emotionally to the dramatic situation they publically proclaim some commitment to an

attitude.” Therefore, group leaders can improvise on a spontaneous group dramatisation among new group members, which can be a powerful force for attitude change.

According to Bormann (1972:397) dramas also imply motives, and by chaining into the fantasy, members can gain motivation. When they engage in the communication where other members share their experiences, they may easily get caught up in the common group consciousness shared by other members in the group who have group history. In a situation where all the members of the group are newly recruited and trained by a group manager, for example, the new members’ communication departs from a shared consciousness of the new experience they are embarking upon, filled with common hopes and expectations that will feed into other fantasy themes within their groups.

The common consciousness created through symbolic convergence should ensure that group members agree on what will count as legitimate forms of reasoning, good evidence and sound decision-making procedures. Shared consciousness also creates the rhetoric group members use in their communication with outsiders when they attempt to sell products or to recruit more members.

While Bales (1970) and Bormann, Knutson and Musolf (1997) explain people’s natural tendencies to share fantasies, it has also been established that group members intentionally developed dramatising messages that are adapted to the other group members and that resulted in the chaining process. It can be said that group leaders in sales groups intentionally develop such dramatising messages. Bales (1970) also argued that some fantasies chain simply by accident, and that attempts at analysis should guard against the dangers of over-interpretation.

Regardless of these considerations, however, it is assumed and accepted that, until proven otherwise, the variations in predispositions to share fantasies are extremely large if not infinite. In this regard Bormann, Knutson and Musolf (1997) deduce that a more general account of group fantasising could be formulated by grouping the integrating factors into fantasy types. As people share fantasies they build predispositions and preferences for certain sorts of dramatising, or seek to share fantasies that are similar to or different from their personal fantasies (Bormann 1985:130).

With the purpose of accomplishing a synthesis between some of Luhmann’s arguments relating to meaning, communication and language, and symbolic convergence theory, the

following claims found in symbolic convergence theory, as identified by Terblanche (2008) are adapted to provide links to certain claims Luhmann (1995) makes about communication, as articulated in Table 4.6 created for the purposes of this discussion here below. It is noted that Luhmann’s claims are selected from the discussions on communication, language and meaning.

Table 4.6: Linking claims in symbolic convergence and Luhmann’s communication theory

SYMBOLIC CONVERGENCE THEORY CLAIMS	NIKLAS LUHMANN’S CLAIMS
1. Meaning, emotion and motivation for action are located in symbolic interchanges.	1. Communication is not action.
2. Symbolic processes create, maintain, repair and transform reality.	2. Meaning is the continual actualisation of potentialities.
3. Fantasy themes occur in all forms of communication.	3. Communication is typically a process steered by themes.
4. Symbolic convergence is created in dramatic format.	4. Language increases the comprehensiveness of communication beyond the sphere of perception.

The considerations that are discussed in the sections follow in relation to the previously cited definition of persuasive communication as “the process of co-creation by sources and receivers of a state of identification through the use of verbal and/or visual symbols” (Larson 2010:22). These claims are linked in each discussion that follows below, which aims to apply a second-order cybernetic perspective to the description of an existing communication theory that, in itself, already provides a theoretical explanation of the phenomena under investigation in this study, namely NDSOs.

4.8.1 Communication is not action – Meaning, emotion and motivation for action are located in symbolic interchanges

In his discussion of the relation between action and communication, Luhmann (1986:178) makes the following statement:

There is no serious conceptual discussion which treats the relation of actions and communications, and the important question of whether action or communication should be considered as the basic undecomposable unit of social systems has not been taken up. For a theory of autopoietic systems, only communication is a serious candidate for the position of the elementary unit of the basic self-referential process of social systems. Only communication is necessarily and inherently social. Action is not.



Action, on the other hand, can be viewed as communication, since every individual or social action constitutes the information component of the communication synthesis Luhmann (1986; 2008) refers to. The meaning of actions (the understanding component) resides within the interpreter of such action and is therefore created within various individual and social systems. Luhmann (1986:178) concurs as he reiterates that communication contains far more meaning than the utterance or transmission of messages, and he argues that:

The relation of action and communication has to be reversed. Social systems are not composed of actions of a special kind; they are not communicative actions, but require the attribution of actions to effectuate their own autopoiesis. Neither psychological motivation, nor reasoning or capacity of argumentation constitutes action, but simply the attribution as such, that is, the linking of selection and responsibility for the narrowing of choice.

The argument Luhmann (1986:178) makes here is of particular significance. When he says that “Social systems [. . .] require the attribution of actions to effectuate their own autopoiesis”, this implies the following: 1) The communication individuals perceive starts with information that becomes communication within various operationally closed systems within the individual as composite unity of biological and mental systems; 2) These actions, which constitute part of the information component of communication, create “knowledge” within the various operationally closed (biological and mental) yet informationally open systems within the individual; 3) This knowledge is then attributed to “selecting the communication”, which directs the process of further communication, which 4) becomes communication on the social level through which further communication occurs. An example is imperative to clarify this understanding.

When an individual is approached by a friend in a coffee shop, for example, this action of “approaching” is attributed to “the friend”, which is processed within the different operationally closed systems in various ways: 1) The sensory system recognises the friend and all other aspects of the environment, such as the visual dimensions of the context (for example, a coffee shop, the friend’s appearance, and so forth), 2) the verbal system perceives the linguistic content in relation to several other dimensions (such as the nonverbal dimensions, meaning imbedded in the language based on previous communication, and so forth), 3) the action system perceives the actions associated with the particular encounter (for example rule-governing behaviour, such as acting appropriately in a public setting, responding to the communication, paying attention to the friend, and so forth), and 4) the affective system will perceive all the emotional dimensions associated with the particular encounter with the particular friend, as well as other dimensions within the environment that relates to emotional perception (such as the music in the background, the status of the relationship with this friend, the ego-system dominating the individual’s overall

system states, and so forth). (Naturally, the individual's various biological systems co-determine all of these operations in the various mental systems. If this individual had no sleep the night before, or is experiencing pressure at work, or has a medical condition such as bronchitis, for example, the various biological systems will impact on all other mental system's perception.) The consideration of the affective system is particularly relevant, because emotion is a specific consideration within symbolic convergence theory.

Luhmann (1986; 2008:88) states: "Neither psychological motivation, nor reasoning or capacity of argumentation, constitutes action, but simply the attribution as such, that is, the linking of selection and responsibility for the narrowing of choice". In other words, the mental operations referred to in this example occur on a predominantly unconscious level as what Luhmann refers to as auto-referentiality, which he describes as an ongoing process which refers to itself. When the analysis moves to the social level, with the focus on both the individual and the friend, in this example, the individual attributes the action(s) to the friend and narrows her choices based on the specific knowledge established in relation to this specific communication environment. As Luhmann (1986: 2008:88) states: "Only by attributing the responsibility for selecting the communication can the process of further communication be directed. One has to know who said what to be able to decide about future contributions to the process." The individual in this example then opts to communicate with the friend and decides to continue with further communication based on past communication (the history of this friendship, for example). This is what Luhmann (1986:178) refers to as the "simplifying location of decision points".

The various auto-referential systems processes constitute these decision points at any given time, and, as they operate almost instantaneously, as in this example, these processes occur on a predominantly unconscious level, as stated earlier. Luhmann argues further that "only by using this kind of simplifying localization of decision points can the process return to itself and communicate about communication". When the friend changes the topic of the conversation to her interest in Avroy Shlain and the opportunities she would like to discuss, the information is then redefined and becomes knowledge that is co-created within the different operationally closed mental systems once again, which continues with a similar attribution process, which in turn determines further communication once again. For example, if the individual selects not to continue with the conversation because she is not prepared to discuss the topic, the auto-referential systems operations will then determine her action(s), which may be to suddenly remember she has an urgent appointment, excuse herself, and leave immediately. This action then becomes information, which creates

knowledge within various auto-referential systems within the friend, which relates to the ego-systems (whether consciously or unconsciously), which attributes actions to effectuate her own autopoiesis, which means that she avoids future communication with this individual, in pursuit of other candidates who may be more perceptive to her quest to recruit members for Avroy Shlain, for example. The possible relationships between these multiple complex systems processes that constitute the synthesis of information, utterance, and understanding are infinite and literally indeterminable, as this simplified example aimed to demonstrate.

The section below aims to provide a link between Luhmann's theorising relating to meaning in terms of the description of symbolic processes within symbolic convergence theory.

4.8.2 Meaning is the continual actualisation of potentialities – Symbolic processes create, maintain, and transform reality

Further to his observation that meaning is the continual actualisation of possibilities, Luhmann (1995:65) describes meaning as follows: "Meaning is the unity of actualization and virtualization, of re-actualization and re-virtualization, as a self-propelling process (which can be conditioned by systems)". He adds that "... meaning must be fashioned as basally unstable, restless, and with a built-in compulsion to self-alteration". When these observations are related to symbolic convergence theory, it can be seen that the stories individuals co-create between and among themselves can also be described as the actualisation and virtualisation of potentialities. It has been shown in the discussions thus far how individuals create syntheses of information, utterance, and understanding in the unity of communication as elements. In terms of symbolic convergence theory, which shifts the focus to the level of interaction between and among individuals, the stories told or created between and among individuals through symbolic processes create the reality they experience together at any given time. Symbolic processes such as the co-creation of stories actualises the potential for further meaning, in relation to temporal dimensions, as discussed earlier. Symbolic convergence theory identifies and describes dimensions of reality, time, morality, and emotion. When individuals interact, the attribution of meaning (as self-referential within each individual as a composite unity of biological and mental systems) can be described in terms of a distinction between experience and action to differentiate between the reproduction of meaning and the reproduction of action. Luhmann (1995:84) explains that attribution as experience – including the experience of action – helps to reproduce meaning, and therefore the ongoing actualisation and virtualisation.

In reference to attribution as action he states:

Attribution as action – including action that presupposes and seeks experience – serves to reproduce the social system by establishing the starting points for further action. One can even say that experience actualizes the self-reference of meaning, that action actualizes the self-reference of social systems, and that both are held apart and recombined in performances of attribution. Because here we are considering meaningful action – namely, action that can be experienced – the reproduction of meaning is always a pre-condition of the reproduction of systems.

With reference to the description of the functioning of symbolic convergence in the beginning of this discussion, the social systems that are created within NDSOs can be described as individuals' attribution of experience insofar as they attribute meaning to their experience within the composite unities of their operationally closed self-creating ego system, as the central self-referential and conscious system, insofar as it manifests itself in a particular ego system state at any given point in time. The dimensions of reality, time, morality and emotion can each be described as points of recursivity that create any particular meaning for any particular individual in terms of self-reference and the unity of the synthesis of communication as discussed previously. Luhmann reiterates that different dimensions cannot be isolated and have to be combined: "The general self-reference of all meaning, which implies that all experience of meaning projects itself beyond itself and then finds itself again there, is specified by the differentiation of the meaning dimensions" (Luhmann 1995:89).

It is also relevant to note here that symbolic convergence theory makes explicit reference to fantasy chains, which can be further articulated in terms of Luhmann's reference to asymmetric chains of communication. Luhmann (1986:178) explains that every communication becomes the subject of further communication that has to anticipate recursive elaboration that requires the allocation and distribution of responsibilities. By accounting for action, the process produces a second version of itself as a chain of actions, as Luhmann (1986:178) explains:

Contrary to the nature of communication itself, which includes the selectivity of information and the selectivity of understanding, and thereby constitutes its elements by overlapping and partial interpenetration, this action chain consists of clear-cut elements which exclude each other. Contrary to the underlying reality of communication, the chain of communicative actions can be seen and treated as asymmetric.

When this explanation is considered in relation to the theory of the coordinated management of meaning and in relation to the fantasy chains as described within symbolic convergence theory, it can be confirmed that because of the operationally closed self-creating systems within individuals, and also the social systems they co-create, the communication may appear similar or actions may appear symmetric, but because of the self-referentiality within

individual and social systems, this is not likely to be the case. Shared meaning is therefore ultimately based on and determined by the self-referential systems within the individual, even if it appears, judging by individuals' actions, as if symbolic convergence occurs.

The emphasis on symbolic processes in symbolic convergence theory can also be observed in Luhmann's thesis that "the self-referential processing of meaning requires *symbolic generalizations*. The concept symbol/symbolic [in that] indicates the medium in which units are formed; the concept of generalization the units' function – to handle multiplicity operatively" (Luhmann 1995:92-93). The dimensions of fantasy themes and rhetorical visions identified within symbolic convergence revolve around the symbolic medium of language with the function of creating, maintaining, and transforming the realities of individuals, specifically as this takes place in NDSOs. The discussion in the section below provides further clarification of how the symbolic creation of communication themes coordinates individuals' contributions to the process of symbolic convergence and the selections of information, utterance and understanding that establish communication syntheses.

4.8.3 Communication is typically a process steered by themes – Fantasy themes occur in all forms of communication

It was shown in the summary of key concepts in symbolic convergence theory that unfolding dramas can be described as pragmatic, social, or righteous, and that motives can be described as motives for mastery, affiliation, or achievement (Table 4.5). These dramas and motives can be related to Luhmann's claim that communication is typically a process steered by themes (Luhmann 1995:157). Luhmann (1995:156) also makes reference to factual and temporal dimensions of themes, as well as moral themes that correspond with the reality, time, and moral dimensions as articulated in symbolic convergence theory. His discussion of the temporal dimensions also corresponds with the cycle of fantasy themes as identified in the description of the functioning of symbolic convergence theory. In terms of Luhmann's discussion on communication themes, individuals' participation in the co-creation of fantasy themes and rhetorical visions within symbolic convergence theory can be described as their "contributions": "Themes outlive contributions; they integrate different contributions into a longer-lasting, short-term or even long-term nexus of meaning" (Luhmann 1995:155). It follows that meaning, as it is created in the synthesis of the selections of information, utterance, and understanding, is sustained within communication themes that appear and re-appear between and among individuals. The conceptualisation of pragmatic, social and righteous themes in symbolic convergence identifies broad communication themes that

individuals can relate to, or utilise to establish the identification referred to in the definition of persuasion earlier. Luhmann (1995:155) uses the following example to explain how individuals' identification with communication themes can aid in the discrimination between contributions and contributors:

Themes also regulate who can contribute what. They discriminate contributions and contributors: for example, one requirement of social communication is selecting themes to which everyone present can contribute something, themes that do not tempt anyone to exhibit his individuality and that give each one the chance to make a satisfying individual contribution in which he can be recognized.

While symbolic convergence theory identifies specific fantasy themes, rhetorical visions, or dramas, it can be argued that any communication theme that is identified as such by its correspondence with individuals' self-referential points of recursivity can encourage different kinds of contributions to the symbolic convergence process. The essence of communication themes is that they possess a dimension of meaning in themselves. In other words, they contain a certain degree of auto-referentiality, which corresponds with self-referentiality and also with hetero-referentiality insofar as meaning is co-created in relation to other meaning. Luhmann (1995:157) explains this relationship between meaning and communication themes as follows: "Meaning references can be actualized on the thematic level that in a single communicative event could hardly be detected. Communication, therefore, is typically, although not necessarily, a process steered by themes".

In terms of the communication themes and motives that are identified within symbolic convergence theory, it is apparent that such themes can be directly linked to self-reference and individuals' and social systems' co-creation of ego system states insofar as identification is perceived or co-created between and among individuals. The pragmatic themes or dramas, for example, include themes relating to self-actualisation or the accomplishment of shared or joint purpose. The social theme emphasises the creation and maintenance of relationships whereby the individual, again, self-creates her self-concept in relation to others – a process of differentiation, or what Luhmann (1995) continuously refers to as boundary maintenance. In other words, the theme of establishing identity in relation to other identities is again a self-referential process. The righteous theme in symbolic convergence is indisputably the co-creation of ego-system states. Individuals co-create meanings of justice, victory, individual mastery and the overcoming of whatever obstacles or limitations they may perceive. This is a typical theme in NDSOs, where individuals share narratives relating to their accomplishment of self-actualisation in whichever way they define it, as is explained in further detail in the concluding chapter. Similarly, the motives of mastery, affiliation, and achievement correspond with these themes identified within symbolic convergence theory.

The language action paradigm¹⁵⁹ can be linked to the explanation of how communication themes operate in the co-creation of meaning through language. Although the discussions throughout have emphasised that meaning and communication are self-referential, and have reiterated that the coordination of actions does not necessarily imply shared meaning, the utilisation of any particular language necessarily implies that meaning has been conditioned to the extent that language is symbolic and coded.

Communication themes become apparent predominantly in linguistic form. It is through language that the dramatisic format referred to in the theory of symbolic convergence is created. The section here below relates some of Luhmann's arguments about language to the creation and co-creation of dramas that relate to communication themes as discussed in this section.

4.8.4 Language increases the comprehensiveness of communication beyond the sphere of perception – Symbolic convergence is created in dramatisic format

It has been shown in the description of the functionality of symbolic convergence that individuals, particularly in group settings, display a propensity towards dramatisation which is expressed predominantly in linguistic communication. It has also been shown in previous discussions that language constitutes only a certain amount of information and how it relates to the other selections in the unity of communication synthesis. The differentiation of communication processes from within operationally closed self-creating biological and mental systems has been described, as it was illustrated in Figure 4.5 and as it related to the unity of communication synthesis in Figure 4.2. Luhmann (1995:152) makes the following statement that shows a link between these various discussions:

The differentiation of social systems can emerge only through the differentiation of communication processes. These are by no means composed of linguistic processes alone, but the fact that they are differentiated on the basis of linguistic communication shapes everything that occurs as social action, indeed as social perception.

With the emphasis on language and symbolic action, as well as dramatism in this section, communication theories such as symbolic interactionism provide a frame of reference, with specific reference to the work of Mead (1938), and Richards and Ogden's triangle of meaning as discussed in Littlejohn (1989:96). The focus in this discussion is placed on how individuals use language as a symbolic medium to co-create understanding in dramatisic format, as described within symbolic convergence theory, and as it relates to Luhmann's views on language and meaning in particular. Littlejohn (1983:45) summarises the

¹⁵⁹ See Bester (2002) for a comprehensive discussion on the language action paradigm.

fundamental theoretical and methodological propositions of symbolic interactionism, and these are listed below to show their relation to the discussion in this section.

- Symbolic interactionism focuses on the meaning component in human conduct: Distinctly human behaviour and interaction are carried on through the medium of symbols and their meanings.
- Symbolic interactionism emphasises the social forces of humanness: The individual becomes humanised through interaction with other persons.
- Society is viewed as a process: Human society is most usefully perceived as consisting of people interacting.
- Symbolic interactionism acknowledges the voluntaristic component in human conduct: Human beings are active in shaping their own behaviour.
- A dialectical conception of mind is identified: Consciousness, or thinking, involves interaction within oneself.
- The constructive, emergent nature of human conduct is recognised: Human beings construct their behaviour in the course of its execution.
- Symbolic interactionism stresses the necessity of sympathetic introspection: An understanding of human conduct requires study of the actors' covert behaviour.

The relationship between these key propositions and the discussions relating to the selections within the unity of the synthesis of communication is clear and is therefore not discussed in more detail. It was shown in Luhmann's definition of meaning earlier that meaning can be conditioned by systems, and it was argued previously that since social systems are also operationally closed, meaning also becomes self-referential within different social systems. In consideration of the different themes, motives and dimensions in symbolic convergence theory as well as the broader purpose of the theoretical explanation of the phenomena under investigation in this study, the discussion in this section selects the moral dimension of communication themes to describe its application within symbolic convergence theory in relation to Luhmann's deliberation on this subject.

The moral dimension also relates to the co-creation of states of identification between individuals, which is related here to some of Burke's claims within dramatism as a theory of communication. It will be shown in the theoretical explanation of the phenomena under investigation in this study how speech acts theory, the theory of the coordinated management of meaning, and Luhmann's theorising relating to the unity of the synthesis of communication can be integrated. In this section the purpose is to focus on meaning as a

medium that is utilised in dramatic format for the co-creation of further meaning that creates psychic and social systems, such as NDSOs.

In terms of Burke's theory of dramatism, persuasion is used to identify the guilty and to suggest the methods of purification to obtain redemption. Burke believes that when people communicate, and attempt to persuade others, words are chosen for and because of their dramatic potential (Larson, 1995:135), for example doublespeak or speech acts¹⁶⁰. Larson (1995:115) identifies three interrelated sources of guilt arising from language, namely a) the negative, b) the principle of hierarchy and c) the principle of perfection.

- The negative creates guilt because people construct innumerable rules that are never entirely consistent – a set of “Thou shalt nots”, as Larson (1995:115) explains. People experience guilt because they cannot obey all these rules.
- The principle of hierarchy promotes competition and division among people, which creates guilt, because challenges and demands disrupt the social order (Rybacki & Rybacki, 1991:72).
- The principle of perfection causes guilt because of the discrepancy between the real and the ideal. Inability to accomplish perfection causes rejection, which creates feelings of inadequacy, experienced as guilt.

Littlejohn (1983:57) states that Burke's concept of the negative is similar to cognitive dissonance, as described earlier. A clear interpretation of the term guilt is required, since guilt may be interpreted as culpability, or a feeling arising from committing an offence. When a person experiences guilt, as per Burke's definition, it is not implied that the person committed any offence. Characterising words (symbols) in terms of their dramatising potential implies in itself that meaning is conditioned to some extent. Moral conditioning is implied in Burke's discussions on hierarchy and guilt,¹⁶¹ and provides a further link to how it is symbolically generalised (Bester 2002). This understanding is also apparent in the following statement by Luhmann (1995:236):

Morality is a *symbolic generalization* that reduces the full reflexive *complexity* of doubly contingent ego/alter relations to expressions of esteem and by this generalization open up (1) room for the freeplay of conditionings and (2) the possibility of reconstructing complexity through the binary schematism esteem/disdain.

¹⁶⁰ Cf. Powell (1985); Burke (1978).

¹⁶¹ See Bester (2002) for a discussion of Burke's dramatisic pentad, which can be applied to the analysis of communication by identifying the elements of act, scene, agent, agency and purpose, which in turn indicate further points of recursivity that are created in communication.

Laflamme (2008) shows that in terms of Luhmann's theorising on morality, various binary oppositions constitute moral coding, and she states:

The binary coding called morality can facilitate understanding and conjoining behaviour, but it can also bring conflicts into focus. Criteria or programs of the moral will be needed to allow the system to distinguish between good and bad, and to allocate accordingly "esteem" to the whole participant in communication when meaning references are indicated as "good", and "non-esteem" (or disdain) when meaning references are coded as "not-good" (or bad).

Another key concept in Burke's theory is *identification*, which can be linked to recursivity as well as the identification within, between and among individuals through the medium of language. Identification in general refers to consubstantiality or shared meaning. Identification is a function of rhetoric, which is also illuminated within symbolic convergence theory. It may be conscious or subconscious. As the identification between people increases, shared meaning increases and therefore understanding is improved. Littlejohn (1983:57) recognises three overlapping sources of identification, namely material, idealistic, and formal sources of identification.

- Material sources of identification result from goods, possessions, or things. A Rolls Royce is perceived to be a status symbol that people of a certain class in society's hierarchy will identify with.
- Idealistic identification results from ideas, attitudes, feelings, and values. People who share certain religious beliefs, for example, identify with each other.
- Formal identification results from the form or arrangement of the act. Within different military forces, for example, soldiers salute each other in different ways.

Some sort of identification, however small or basic, exists among all people (all people are human, have basic human organs, wear clothes, eat food, live in shelter, and so forth). On a higher level, this identification can be described as collective consciousness. According to Burke, persuasion through identification is effective because all people experience guilt, and people who are persuading themselves and others attempt to achieve identification through sharing creating substances (structures that represent substance). Persuaders motivate people by appealing to their internal and inevitable feelings of inadequacy or guilt (Rybacki & Rybacki, 1991:74). It follows that identification is not an either/or state or condition, but rather a matter of degree. This observation also provides a link to the discussion on the internal systems states earlier, in reference to Figure 4.5.

The description of the functioning of symbolic convergence can be linked directly to these observations insofar as individuals co-create potentialities of meaning within operationally

closed social systems, such as NDSOs. Within these social systems the moral dimension of communication themes allocate different moral codes for individuals' behaviour, such as the meaning that personal and social relations create contexts for commercial engagement. The rhetorical visions described within the theory of symbolic convergence refer to universal communication (or fantasy) themes as they relate to self-referential systems within individuals across cultures. Meaning as such becomes a medium in itself, and hence Luhmann's argument that it is meaning that creates social and psychic systems. Symbolic convergence theory illuminates how this co-creation of meaning occurs through language in dramatic format, which further enhances the potentialities of meaning during interaction between and among individuals, as occurs also in NDSOs. The theoretical explanation for the existence and sustenance of NDSOs in the following chapter will articulate these theoretical arguments more explicitly.

4.9 CONCLUSION

The conversation in this chapter departed from conceptualisations of communication and an overview of the seven traditions of communication theory as a field identified by Craig (1999), and applied as a framework in many communication texts. Luhmann's description of communication as being constituted by selections of information, utterance, and understanding was used to create a theoretical framework for the study of communication that creates social systems, such as NDSOs, in this chapter.

A new conceptual model was created and illustrated in Figure 4.2 to link the key concepts in Luhmann's theorising about communication, namely information, utterance, and understanding, to a persuasive communication framework generally known within persuasive communication theory, namely behaviourist, cognitive, and constructivist orientations. From the constructivist epistemological stance adopted in this study, and aligned with the second-order cybernetic (autopoietic) perspective, it was shown that the observer could not be separated from the observation. The observer applied the principles of cybernetic theory to the process of observation, and the selection of theories in this chapter therefore necessarily provided evidence of the understanding of the observer based on the selection of theoretical considerations. It was therefore demonstrated that selection in itself is an utterance of some kind that indicates the understanding of the observer as perceived by the recipient of the information presented in this study.

Further to the study of the individual within the meta-theoretical perspective in the previous chapter, it was shown in the various discussions in this chapter that the individual who co-

creates social systems creates unities of communication synthesis within her own composite unity of biological and mental systems, that is necessarily (but not exclusively) co-created by other individual or social systems. The individual exists in some kind of environment at all times and is exposed to information of various kinds at all times, even in the absence of other individuals, and even when the individual is not conscious of such information-input into her or his various biological and mental systems.

It was confirmed in terms of Luhmann's theoretical explanations that communication is completely self-referential and that individuals perceive communication even in the absence of linguistic communication. While this is generally known from the theoretical premises related to non-verbal communication, the various considerations relating to the three selections that constitute the unity of the synthesis of communications offer deeper epistemological explanation. Recursivity and self-reference as two of the key concepts identified within the discussion of second-order cybernetics in the previous chapter were articulated clearly in relation to the study of communication specifically.

The discussion on speech acts theory showed that the intentions of communicators were imbedded in their selections of speech acts, which indicated the auto-referential distinction within language itself. The selection of understanding within Luhmann's communication synthesis was explained in terms of the theory of the coordinated management of meaning to show that the completion of the unity of communication element was self-referential and that, while individuals' actions appear to represent shared meaning, this is not necessarily the case. In terms of these theoretical explanations it is therefore apparent that communication involves far more than actions.

The second new conceptual communication model created in this chapter and illustrated in Figure 4.5 aimed to show the multiplexity within individuals through which the unity of the synthesis of communication is completed through intrapersonal communication, which creates the information and utterance selections within other individuals, and then communication within the other individual or individuals within self-creating social systems. Operational closure was identified as the key consideration relating to all the discussions in this chapter. It was indicated that recursivity involves the continuous creation of points of reference that individuals utilise for the identification of communication contexts and the determination of understanding and further communication. Emphasis was placed on the explanation of unconscious processes that constitute the differentiation of auto-referentiality, self-referentiality, as well as hetero-referentiality. In reference to inter-referentiality, it was

shown that the concepts and elements identified and described in this chapter created the meaning of these elements and concepts in relation to each other within the framework of the conversation in this chapter.

Symbolic convergence was selected as a broad communication theory that explains how communication can create social systems such as NDSOs. The discussions of the key considerations and functioning of symbolic convergence theory showed that the theory could be linked to some of Luhmann's claims relating to communication, language, and meaning. The identification of four arguments within both Luhmann's theorising and symbolic convergence provided a link that enabled the description of symbolic convergence theory from a second-order cybernetic meta-theoretical perspective. An essential link between Luhmann's theorising about communication and symbolic convergence theory was derived from the definition of meaning as the continual actualisation and virtualisation of potentialities, since potentiality is a term that can be attributed directly to the creation of NDSOs in particular.

The theoretical frameworks created in Chapters 3 and 4 are integrated in the concluding chapter in order to provide a theoretical explanation of the phenomena under investigation in this study, namely NDSOs, which were described in terms of network theory in Chapter 2.

CHAPTER 5

A SECOND-ORDER CYBERNETIC EXPLANATION FOR THE EXISTENCE OF NETWORK DIRECT SELLING ORGANISATIONS

5.1 INTRODUCTION

The introduction to this study was followed by a description of NDSOs from operational, tactical and strategic perspectives as the most comprehensive framework found in existing studies of this phenomenon. The conceptual elements were identified as situational and process characteristics that were distinguished in terms of discrete transactions and relational exchange. Direct selling was defined as an economic and social activity that aims to establish relationships among individuals through communication activities for the purpose of establishing markets for the selling of products, and that provides evidence that persuasion has occurred. With the emphasis on networks, the characteristics and premises of network theory were considered, and it was shown that networks are categorised within the cybernetic tradition of communication theory as a field. It was apparent that individuals made the decision to join NDSOs, mostly on a part-time basis, and the theoretical study considered the study of individual behaviour from a cybernetic meta-perspective. The statistical information presented in Chapter 2 revealed that the majority of the members of NDSOs do not earn significant income through their membership. It is therefore the purpose of this chapter to explain why this industry exists and continues to grow in spite of the improbability of its survival given the financial indicators.

Modern studies of communication theory have their origins in cybernetic theory, with specific reference to Shannon and Weaver's information theory (1949). The reconsideration of key concepts within first-order cybernetics in Chapter 3 provided a different interpretation of open and closed systems, equilibrium and the transmission model, which have previously been considered mechanistic. General systems theory was reassessed and applied to the study of individuals, and it was shown how these concepts could provide a broader understanding of systems complexity. The discussions on complexity theory showed not only that individuals were composite unities of various complex biological and mental (psychic) systems, but that individual behaviour was multiplex and that no direct causal explanations for human behaviour could be found. Carlston's associated systems theory (1994) identified primary

and secondary representative mental systems, which, together with Mayer's discussions on personality theory, provided insight into the information input-output processes that are created within individual and social systems.

The introduction to, and extensive discussion of, second-order cybernetics, as Von Foerster (1974) called it, showed that the emphasis had shifted from observed systems to observing systems. A clear constructivist epistemological orientation was adopted by well-known cybernetic theorists, such as Wiener, Pask, Von Glasersfeld, Bateson, Piaget and Luhmann, who contributed significantly to the development of second-order cybernetics. The predominant shift in the development of second-order cybernetics can be marked as Maturana and Varela's *Autopoiesis and Cognition* (1980), which can be described as the catalyst for the development of Luhmann's social theory about communication within the discipline of sociology. Luhmann's articulation of communication as the unity of the synthesis of information, utterance, and understanding (which includes misunderstanding), based on Maturana and Varela's theory about autopoiesis (self-creation) of living systems, created the foundations for the theoretical arguments in Chapter 4 about how communication creates individual (psychic) and social systems.

The conceptual model created for the purpose of integrating Luhmann's theorising with existing theory within the field of communication theory in Chapter 4 showed that individual and social systems were created through communication, and that communication was self-referential. Information, utterance, and understanding were discussed in relation to an existing framework for persuasive communication within communication theory as a field. It was shown that all persuasion is essential self-persuasion as it relates to other self-referential communication processes. A second conceptual model was developed to illustrate how self-reference is created within individuals as composite unities of biological and mental systems, and how individuals co-create social systems, from the understanding of multiplexity that it created. The theoretical arguments developed in Chapters 2, 3, and 4 are integrated in this chapter to provide a second-order cybernetic explanation for the existence of NDSOs.

The discussions in this chapter integrate the theoretical arguments in the previous chapter by creating a conceptual communication process flow model to show how communication self-creates NDSOs.

The chapter flow diagram presented in Figure 5.1 below indicates the flow of the conversation in this chapter.

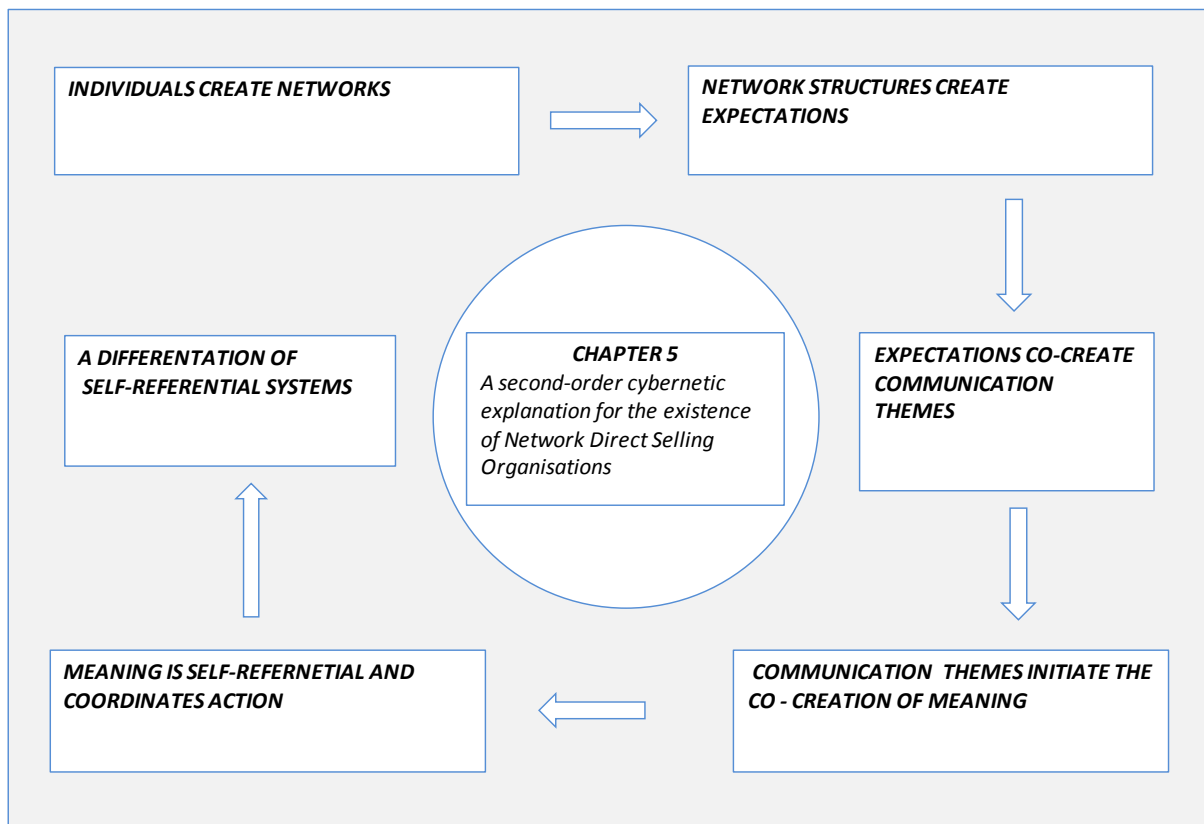


Figure 5.1: Chapter flow diagram for this study

5.2 OVERVIEW OF THE CHAPTER

The second-order cybernetic explanation for the existence of NDSO in this chapter is introduced by the identification of the central concepts that are applied for this purpose in this chapter. The main arguments are clearly identified in this diagram and the key considerations from the previous chapters are integrated by providing links to the previous chapters in the section that follows below.

It is noted here that this chapter presents an integration of the quantitative information presented as the foundation of the research problem, the theoretical premises presented and discussed throughout this study, together with observations made within multiple communicative contexts prior to and during the completion of this study. The global prevalence of NDSOs in itself implies that most individuals must at least have secondary if not primary experiences with the industry itself or with members of this industry. It has been explicated in the title and also in the introduction to this study that the main contribution of

the study is theoretical development of the field. The methodology in the study has been introduced as cognitive methodology. Therefore, the empirical observations made during and prior to the study have not been explicated in the methodology of the study. However, it is noted here that the theoretical application and integration in this chapter is supported by direct observation in the following communicative contexts: recruitment and membership of Avroy Shlain Cosmetics and GNLD for a period of more or less two years, which included the selling of products, group meetings, various public meetings, such as product launches, award ceremonies, sales events, and strategic meetings. Direct engagement with members of Tupperware, Honey Jewellery, Justine Cosmetics, Amway, Herbalife, and Avon, provided further information that is necessarily integrated into the self-referential interpretation and application presented in this chapter. While different social systems may incorporate different expectations, communication themes, meanings, and actions, the discussions in this chapter provide a broad classification of expectations, communication themes, and meanings that can or be identified in NDSOs.

The sections that follow focus on the implications of networks in themselves, the expectations that can be identified in NDSOs and other communicative contexts that may be related to them, the potential communication themes that steer the self-creation of meaning within operationally closed systems at both individual and social levels, the potential meanings that co-ordinate actions, and finally the types of self-reference that can or may be created within self-creating, operationally closed systems within individuals who co-create social systems, such as NDSOs, among multiple others.

5.3 KEY CONSIDERATIONS FOR THE THEORETICAL EXPLANATION OF NDSOs

As is shown in Figure 5.2 below, the theoretical explanation presented in this chapter commences with the integration of the network theory axioms identified and described in Chapter 2 with the second-order cybernetic premises that have been developed through the progression of this study. The conceptual communication flow model presented in Figure 5.2 is created for the specific purpose of providing a second-order cybernetic (theoretical) explanation for the existence of NDSOs as self-creating systems. However, as similar conceptual theoretical models can be created for various other kinds of social systems, the main elements in this conceptual model are described and summarised for ease of reference.

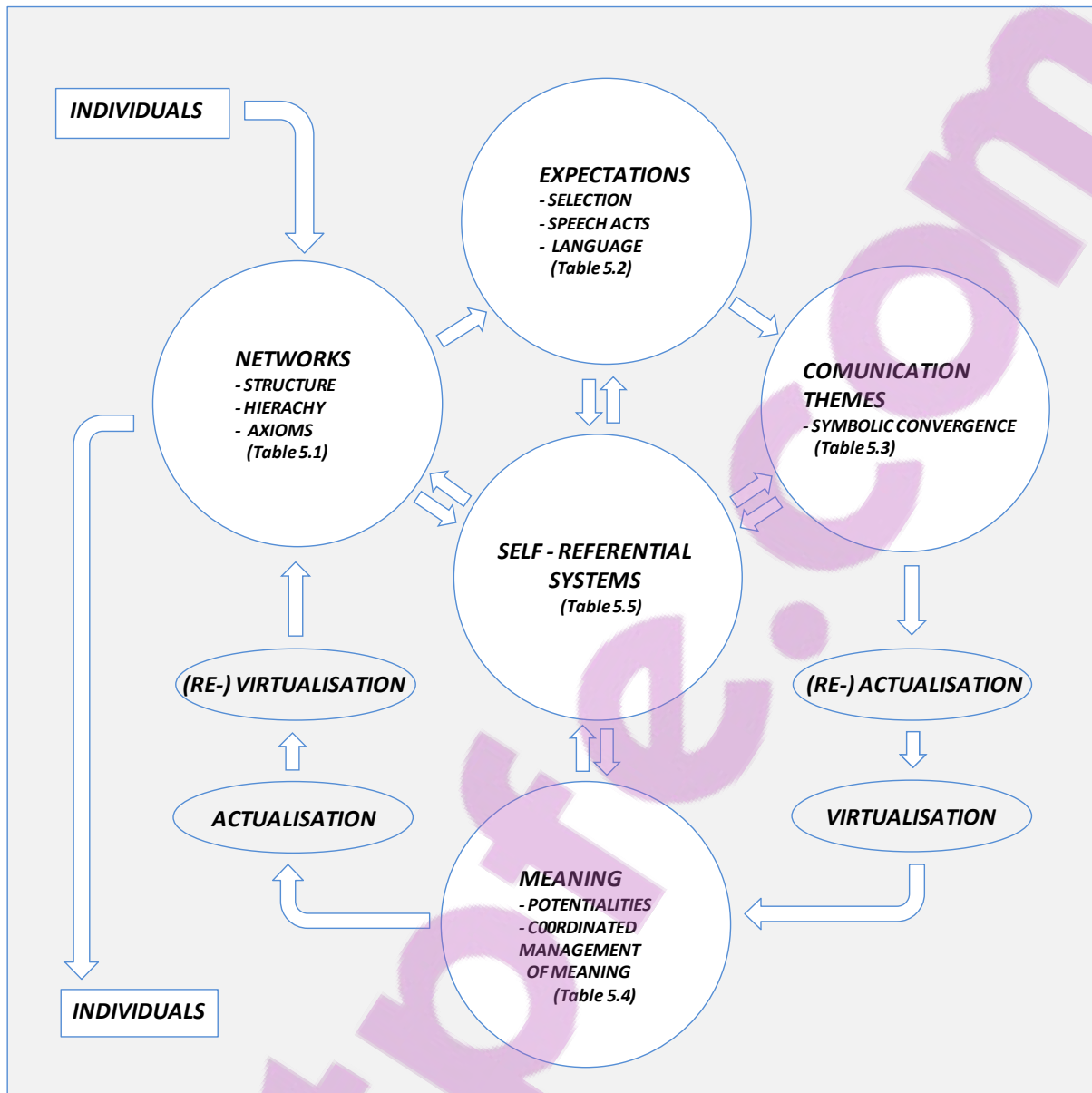


Figure 5.2: A communication process model for NDSOs

The sections that follow provide links between the chapter flow diagram and the specific description of these elements as they relate to NDSOs.

5.3.1 Individuals create networks

The discussions in chapter 2 showed that individuals who join NDSOs become part of existing networks, and create further networks as members of these organisations. From the cybernetic perspective on the study of individuals presented in chapter 3, it became apparent that individuals are composite unities of operationally closed biological and mental systems, and that individuals co-create operationally closed social systems. The central

understanding derived from the study of networks is that networks increase interaction, as well as variation, and necessarily increase potential selections. Selections refer to information, utterance and understanding, according to Luhmann (1986; 1995; 2002), steered by a fourth selection, namely expectation, as was illustrated in Figure 4.2, which was created for the purposes of this study. Another crucial consideration is that network structures in themselves create expectations, as shown in the discussion under 4.6 (see p. 199).

5.3.2 Network structures create expectations

Through the creation of networks, which increase interaction, variation, and potential selections, individuals condense the burden of selection so they can connect operations, as Luhmann (1995:96) states: “Expectations are formed by the intervening selection of a narrower repertoire of possibilities, by whose light one can orient oneself better and above all, more quickly”. In other words, the connections that are created in the process of creating networks imply that individuals have expectations of other individuals they engage with that in turn steer their selections of information, utterance, and ultimately understanding, as has been illustrated in Figure 4.2. As Luhmann (1995:267-268) shows, expectations have to be interpreted broadly to encompass both a physical and a social use, with full understanding of their interdependence. This interdependence has been illustrated in Figure 4.5, with the explanation of the multiplexity of individuals which corresponded with the discussion on complexity and mental systems in chapter 3 (see 3.6.4). Further, the implications of structures have been shown, with reference to the connectedness indicated in Figure 2.10. The multiple expectations that may arise from membership of NDSOs are identified and described in the theoretical explanation for the existence of NDSOs as self-creating systems in this chapter. In view of the dense theoretical discussions in the previous chapter, it is imperative to retain the focus on the central second-order cybernetic concepts, as the theorist applies these to herself in the process of observing the phenomena that are related to NDSOs. In other words, based on second-order cybernetic principles, the individual has to remain conscious of her own primary and secondary mental systems, and the system states that necessarily impact on the observations made, and as such becomes self-referential. The expectations created through membership of NDSOs therefore necessarily relate to the experiences and subsequent expectations of the reader of the thesis, as these expectations relate not only to the content of the chapter, but also the points of recursivity that constitute each individual's system of self-reference.

5.3.3 Expectations co-create communication themes

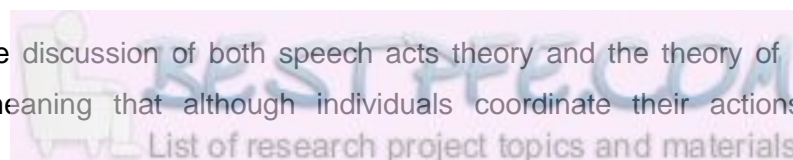
The theoretical and meta-theoretical discussions on symbolic convergence theory in the previous chapter sketched the background to this assumption. The communication themes identified in symbolic convergence theory as discussed in the previous chapter and are applied to NDSOs in this chapter, supported by the observations made as a participant at different levels of engagement, as referred to earlier. It was stated in the discussion on symbolic convergence and also in the discussion on meaning as it relates to understanding as a third selection in the unity of the communication synthesis, that communication is a process steered by themes, that in turn creates self-referential meaning(s) within individuals. It was shown in the discussion of symbolic convergence theory that certain universal themes could be identified across cultural, linguistic or other social and even psychological boundaries. The identification of communication themes in the theoretical explanation for the existence of NDSOs in this chapter presents a further differentiation of these central themes as these themes have been observed and experienced in various communicative contexts related to NDSOs. The typical recruitment presentation by GNLD, for example, as shown in Appendix A, illustrates some of these communication themes.

5.3.4 Communication themes initiate the co-creation of meaning

The concepts *meaning*, *understanding*, and *action* have been discussed extensively in the previous chapter. It has been shown in the example of a typical communicative context in NDSOs in the discussion of speech acts theory and the theory of coordinated management of meaning (see 4.6.3 and 4.7) that meaning is self-referential. Meaning has been defined as the continual virtualisation and actualisation and re-virtualisation and re-actualisation of potentialities (Luhmann 1995). This understanding has also been linked to the theory of symbolic convergence in the previous chapter, as it was explained how fantasy themes constitute such virtualisation and actualisation and re-virtualisation and re-actualisation through visualisation, as is also evident in Appendix A. It is reiterated that meaning is self-referential and that each individual creates her own meaning, as it relates to unity of communication synthesis in any and every given communicative context that individuals self-create and co-create.

5.3.5 Meaning is self-referential and co-ordinates action

It was shown in the discussion of both speech acts theory and the theory of coordinated management of meaning that although individuals coordinate their actions, such as



becoming members of NDSOs, or attending tea parties, meaning remains self-referential. The size of the global NDSO sales force and its growth rates (see Figure 2.4 and 2.5), together with the average earning figures (see Figure 2.6) showed that there is no rational explanation for this industry to exist and sustain itself to the extent it does. Therefore, the theoretical explanation for the existence of NDSOs as self-creating systems in this chapter, aims to show that it is exactly the *potentialities*, in other words the *expectations*, that coordinate the actions of members of NDSOs.

5.3.6 Different kinds of self-reference are created within individuals and social systems

The theoretical explanation in this chapter ends with the identification of different kinds of self-referential systems that aim to offer further insight into how multiplexity manifests itself within operationally closed, self-creating systems within individuals who create complex, and even multiplex social systems such as NDSOs. The elaborate discussion on complexity theory in chapter 3 has shown how complexity was classified in broader types of systems. The purpose of this study is to present a second-order cybernetic explanation for the existence of NDSOs as self-creating systems, and therefore self-reference, as probably the most fundamental concept in second-order cybernetics, is differentiated and related to members of NDSOs specifically, insofar as these kinds of self-reference may occur. It is acknowledged that such differentiation offers classification of potential kinds of self-referential that is not exclusive and open to further differentiation or classification. Second-order cybernetics, as a meta-theoretical perspective, is applied in an interdisciplinary and transdisciplinary way and further collaboration between and among disciplines may lead to the development of other kinds of self-referential systems. As stated previously, the various kinds of self-reference identified in the theoretical explanation in this chapter have been selected for this particular discussion, as they could be related to individuals and communicative contexts within the context of this study.

The sections that follow apply the elements identified in Figure 5.2 to the theoretical explanation that follows. The theoretical discussions in the previous chapter are applied as they are related to NDSOs in particular. Specific links to other communication theories have been made in chapter 4 and therefore the explanation that follows presupposes an informed reader at this stage of argumentation in this thesis.

The tables presented at the beginning of each section summarise the arguments presented to support the second-order cybernetic explanation for the existence of NDSOs presented in

this study. The sections in this chapter are interlinked, as will be shown in the course of this chapter.

5.4 NETWORKS ARE STRUCTURES

The structural dimensions of NDSOs have been illustrated as latent and dynamic insofar as their continual change and development indicated the impact of communication flow processes within and between individuals who create networks, which in turn create these organisations. Table 5.1 below summarises the three axioms about networks that are utilised in this chapter.

Table 5.1: Network axioms

NETWORKS INCREASE THE <i>SELF-CREATING</i> CAPACITIES OF SYSTEM UNITS IN RELATIONSHIP TO THEIR ENVIRONMENT BY INTERACTION, VARIATION AND SELECTION
Networks increase interactions within and between system units
Networks increase chances of variation within and between system units
Networks increase options for selections by system units

The primary concepts in these axioms are clearly interaction, variation, and selection, all of which have been addressed from different perspectives in the previous chapters. The emphasis in the description of NDSOs in this section is placed on the *increase* in these communication processes that is accomplished through network structures. As Luhmann (1995:293) observes, “the relationship between structure and action is one of reciprocal enabling”.

With reference to the generic description of NDSOs in Chapter 2 (see 2.4) and also the distinctions between traditional hierarchies and the networked organisations made by Verwey, Du Plooy-Cilliers and Du Plessis (2003:179) presented in Table 2.11, some of the implications of these distinctions that have become more apparent through the theoretical discussions in the previous chapter can be considered in the description of networks and NDSOs in particular. These distinctions are re-addressed here in order to emphasise the difference between typical hierarchical organisations and NDSOs as it relates to the theoretical development in the chapters that followed.

With reference to Table 2.11, it can be noted that technology certainly plays a significant role in NDSOs as far as the distribution of information and the general operational requirements of these organisations is concerned, although it is reiterated here that the person-to-person,

small and large group, and even public communication feature more prominently in NDSOs. However, in developed countries, the impact of social networks such as Facebook and Twitter has not been explored in this study. Face-to-face communication is instrumental to the creation of NDSOs, and is necessarily aided by technology, although technology in itself is not the medium through which these networks are created and sustained, as will become more apparent in the sections that follow.

Communication structures and roles also differ in NDSOs, in comparison to other organisation types, since they are more internally than externally focused and do not consist of flat communication structures that integrate loosely linked communication processes. It was shown in Figures 2.7, 2.8 and 2.10 that hierarchies are imperative for individual growth, insofar as the personal aspiration to become group distributors (as a pre-condition of their potential financial independence and status) is concerned. Such potential hierarchies are the key selling points in NDSOs in general, where consumable and less costly items are concerned, as shown in Chapter 2. High cost items have a lower sales turnover and the recruitment of members is therefore more challenging.

Lateral communication processes may be the primary means of coordination and control, although the actions of individuals who are members of NDSOs create information and utterance that manifest as a different kind of control and coordination, as it is evident from the logistics presented in Chapter 2. Verwey, Du Plooy-Cilliers and Du Plessis (2003:179) describe communication systems in networked organisations more accurately as “control and co-ordination of communication through *strategic communication intent* and shared communication values” (emphasis added). Individuals who are members of NDSOs utilise existing networks and create new networks (initially) for essentially commercial purposes, because of the potentialities presented to them and because of the meaning these (infinite and indeterminable) potentialities they create and co-create for themselves. Individuals therefore necessarily increase their interactions, through networks, to accomplish their purposes. The three sub-axioms relating to networks in Table 5.1 are discussed individually below as they relate to the communication process flow model illustrated in Figure 5.2.

5.4.1 Networks increase interaction within and between system units

It has been observed through experience with NDSOs such as Avroy Shlain Cosmetics and GNLD, in particular, that new members of NDSOs are instructed to compile a list everybody they know and told that these acquaintances are potential clients, either for the selling of products or for the recruitment of new members. New members are therefore implored to

increase their interactions and to create networks by doing so. As is also shown in the discussion on meaning that is created in NDSOs that follows below, this action interacts with action, since the unity of the selections of information, utterance and understanding is completed within the individual and therefore other individuals' actions often complete this synthesis, even in the absence of verbal communication, as was explained in the previous chapter. Luhmann (1995:168) supports this claim: "Only actions and not fully communicative events serve as connective points". Therefore the increased connectivity that occurs through networks in NDSOs bring about increased observation of other individuals' actions that create communication within individuals as composite unities of mental (psychic) and biological systems in the process of co-creating social systems.

With specific reference to the discussions on selections within the unity of communication synthesis in the previous chapter (information, utterance, and understanding), it is stated here that the purpose of the interactions (related to membership of NDSOs) manifest as particular speech acts, as determined by each individual, whether they are the communicator or the recipient – in other words, the direct salesperson or the (potential) client. In other words, members of NDSOs may intentionally or unintentionally, consciously or unconsciously change their speech acts in most of their communicative contexts and may in this regard redefine the constitutive rules, such as the sincerity rule, as was shown in the discussion on speech acts theory in Chapter 4 (see 4.6.2). The observations relating to language in the discussion of utterance and speech acts in that section aimed to show how language increased the understandability of communication beyond the sphere of perception (Luhmann 1995:65). The identification and description of communication themes and meanings created in NDSOs address the symbolic interaction between members of NDSOs, as is discussed in more detail below.

It is also important to consider that each individual member of an NDSO determines the frequency of interaction and the complexity of the network structures s/he creates. The increase in interaction increases the complexity of network structures and therefore the increasingly complex image of the world that arises from the observer him- or herself and his or her perception of the inter-relationships between system components and system levels.¹⁶² In other words, as Wilby (2006:696) shows, system phenomena and processes become "observer-dependent", as is the emphasis within second-order cybernetics. In this regard Luhmann (1981; 1995) argues that the accomplishment of a unity of communication

¹⁶² Cf. Mesarovic, Sreenath and Keene (2004) for a discussion of multilevelness and the bounded autonomy of levels, which shows the necessity for application of systems biology in the study of social systems.

synthesis is improbable, and that it is actually actions that interact with actions, as was also indicated in the discussion on the theory of the coordinated management of meaning in the previous chapter.

It can therefore be argued that although communication is more than action, it is the action of increasing communication between and among members that co-creates NDSOs. These sub-systems also communicate directly or indirectly (for example, through the comparison of sales figures), through communicative occasions such as meetings, sales demonstrations (referred to as tea parties in Chapter 2), public gatherings, such as award ceremonies or celebrations, and so forth.

The increase in interaction between members of NDSOs and between members and their social acquaintances continually creates further networks of communication that in turn increase the chances of variation within and between system units.

5.4.2 Networks increase chances of variation within and between system units

From the understanding that communication is the elementary process that creates social and psychic systems, the term variation necessarily refers to the variation of *meaning* in this discussion. It has been shown in the discussions in the previous chapter that meaning relates to the third selection within the unity of the synthesis of communication, namely *understanding*. It has also been explicated that meaning and understanding, and in fact communication itself, are completely self-referential. Meaning has been defined as the continual virtualisation and actualisation, and re-virtualisation and re-actualisation, of potentialities. It is therefore clear that networks increase the potential meanings that members of NDSOs create between and among themselves, and also between and among themselves and members of other social systems they co-create. Based on Luhmann's theorising, the unit of operation of the social system is the interactive construction of meaning (Leydesdorff 2000:274) and it is therefore apparent that networks increase the potential meanings that can be created within the various operationally closed social and psychic systems that are linked to NDSOs. By increasing the potential variations, networks also increase the options for selections by system units, such as the selections of speech acts and the selection of implicative force, as explained in the previous chapter.

It was shown in the discussions on Luhmann's theorising about communication in the previous chapter that the unity of the synthesis of communication is created through selections individuals make, whether consciously or unconsciously, intentionally or

unintentionally. The section below considers the implications of the increased options for *selections* created through networks, as this relates to NDSOs.

5.4.3 Networks increase options for selections by system units

The discussions in the previous two chapters illuminated three selections, namely information, utterance, and understanding, which create the unity of the synthesis of communication. Networks necessarily increase the options for these selections within psychic as well as social systems, as they increase the complexity or multiplexity of these systems. Members of NDSOs sensitise themselves to other categories of information and utterance that create different hierarchies of contexts (as explained in the discussion of the coordinated management of meaning in the previous chapter). It can therefore be seen that the increased interaction that creates increased variation also increase the options for selections, which means that different communication syntheses are created, particularly because of people's involvement with NDSOs. In doing so, they do the same with all other communication syntheses to greater or lesser degrees. In their selection (to become members of an NDSO) individuals create and perpetuate networks. They therefore also select meaning through the continuous unity of communication synthesis they create. According to Luhmann (1995) structures create expectations (Luhmann 1995), as is shown with specific application to NDSOs in the section below.

It becomes apparent from Luhmann's theorising about communication and action, in particular, that selections are also determined by *expectations*, which can be regarded as a fourth selection in the communication process that indirectly co-creates the unity of communication synthesis. As argued previously, individuals co-create multiple systems that continually operate at different levels. Expectation, as a fourth selection in the communication synthesis, therefore necessarily applies to all communicative contexts and therefore plays a central role in all the selections individuals make, as shown and related to communication that creates NDSOs in particular in the section below.

5.5 NETWORK STRUCTURES CREATE EXPECTATIONS

As shown in the descriptions of NDSOs in Chapter 2, specifically, and as implied in the theoretical discussions in the previous chapters, individuals become members of NDSOs because of certain expectations. The primary expectation attributed to individuals' initial commitment to NDSOs is material gain, even though it has been shown that this expectation is not met for the vast majority of members. The selection of expectation was also referred to

in the discussion of understanding in the previous chapter (see 4.6.3), and described in brief under 4.7.1.8. However, expectations are multiple and can be related or linked to multiple social and psychic system operations.

It also follows from the discussion on understanding as the third selection that completes the communication synthesis in the previous chapter that expectation is also self-referential and is created within individual and social operationally closed systems. Expectations also have to be related to temporal dimensions, as discussed in the previous chapter (see 4.7.1.6), insofar as they are created by individuals within operationally closed psychic and social systems in relation to past, present, as well as future communication. Table 5.2 below summarises some dimensions of expectations that relate to members of NDSOs.

Table 5.2: Expectations related to NDSOs

EXPECTATIONS RELATED TO NETWORK DIRECT SELLING ORGANISATIONS	
Individual expectations	Material gain (financial relief, independence) Personal gain (self-actualisation, self-esteem, self-determination, etc.) Social gain (acceptance, affiliation, recognition, responsibility, etc.)
NDSO group expectations	Material gain (group achievements) Personal gain (group status, recognition, cohesion, purposiveness) Social gain (group recognition, acknowledgment, validation)
NDSO organisational expectations	Material gain (organisational growth, profit & market share) Social gain (social responsibility, organisation's image)
Other social systems' expectations (determined by various social systems such as cultural, socio-economic, legal, and so forth)	Cognitive vs. normative expectations Product-related (price, quality, and so forth) Sales related (service, attention, communication, etc.) Preference (supportive or non-supportive)

As shown in Chapter 2, multiple sub-groups or sub-organisations are continuously created in NDSOs. Individuals do not only become members of NDSOs, but also members of groups within these NDSOs. As deliberated in the following section, groups within NDSOs create shared expectations (for various reasons) through communication within and between groups within these organisations. The group distributor, for example, identifies specific sales targets for group members and hence creates expectations. Individuals are therefore presented with expectations from their immediate superior, so to speak, as well as from their

other group members. Such expectations are also related to the group status that is publicised and distributed between and among group members and other groups within these organisations.

If one accepts networks are structures, it can be argued that structures themselves create expectations, as Luhmann (1995:288-289) states: "Expectations are the autopoietic requirement for the reproduction of actions, and to this extent they are structures. Structures of expectation are basically the condition of possibility for connective action and thus the condition of possibility for self-reproduction through their own arrangement". It is therefore argued that individuals' expectations drive their actions, and in NDSOs members are driven by their expectations of success, which is defined and determined by every individual's operationally closed self-referential psychic or social system. Luhmann (1995:293) offers further explanation: "The formation of expectations equalizes a multiplicity of highly heterogeneous occurrences under the common denominator of disappointing an expectation and thereby indicates lines of action." If, in other words, the individual has the expectation of earning money from network direct selling, her or his actions will be directed towards avoiding disappointment within her- or himself. At the same time, individuals' actions (attending or participating in meetings, for example) represent shared expectations among members of NDSOs that are reinforced by the increase in membership observed by prospective or existing members of NDSOs.

On the other hand, other systems' expectations necessarily play a significant role. It was shown in Chapter 2, for example, that NDSOs have at times been banned in certain countries, and that there have been objections to the commercialisation of personal relationships. However, because of normative expectations imbedded in cultures that prescribe *support* or *encouragement* of other individuals within social systems, other social systems' expectations may not become apparent to members of NDSOs. In other words, personal friends and relatives of members of NDSOs may not express their disapproval significantly enough to discourage direct sales activities. As Luhmann (1996:344) states: "To produce obvious dissent requires much more effort than to assume agreement. The social system allows for both possibilities but it is disbalanced in favour of consensus. *Qui tacet consentire videtur*" (he who is silent is taken to agree).¹⁶³ It can there be argued that the growth in NDSOs is co-created by the silence of other social systems. Luhmann (1996:341) argues that individuals' motives can be controlled through membership of social systems by

¹⁶³ Cf. Stanback and Pearce (1981) for a discussion on status and power difference in groups that can be related to expectations, as discussed in this chapter.

establishing a “zone of indifference”. It becomes more apparent in the sections that follow how meanings that are created in NDSOs steer members towards indifference not only towards other social systems but also towards the non-probability of success.

It is therefore clear from the illustration of possible expectations within NDSOs in Table 5.2 that some of these expectations may cause conflict within several psychic as well as social systems. In this regard, Luhmann’s distinction between cognitive and normative expectations is relevant. Luhmann (1995:320-321) describes cognitive expectations as those that are willing to learn or be stylised and normative expectations as those that are not disposed towards learning. He adds that when expectations are disappointed, they are counterfactually retained. The broad distinction between cognitive and normative expectations necessarily means that expectations will be categorised as such in relation to all the other individual and social systems that create the environment which differentiates such systems at any given time. In certain social environments it may be deemed acceptable to create commercial communication contexts and to redefine hierarchies of communication contexts (as explained under 4.6.3) in relation to network direct selling. However, in other social environments the association between personal relationships and profit may be unacceptable. Therefore the difference between cognitive and normative orientations is determined by the particular operationally closed psychic and social system from within which it is assessed. Within the broader socio-economic system the different expectations have become apparent from the litigation, as it was referred to in Chapter 2.

It has to be reiterated that through networks, the social systems individuals create within NDSOs establish personal rather than professional relationships. At the same time individuals generally approach relatives, friends, or acquaintances in their efforts to promote their network direct selling causes or objectives. It is reiterated that the various expectations that can be identified within the different individual and social systems within NDSOs are necessarily related to and to some extent determined by the expectations of other individual and social systems that create the environment or sub-systems within NDSOs. It also has to be considered that individual personalities or characters, as well as their selections of the information, utterance and understanding in every particular communicative situation and environment, co-create their cognitive and normative assessments at any particular time.

Luhmann (1995:321) explains the challenge created by expectations as follows:

A complete separation of cognitive and normative expectations, and establishment of the difference, is [therefore] hardly possible on the level of expectation... A mixture of cognitive and normative expectational components is a normal, daily state of affairs and requires a great deal of skill (with corresponding problems of agreement in social behavior) to dispense reactions to disappointment. Only in such mixed forms can a readiness for expectation be extended to fields of meaning and modes of behavior that are so complex one cannot blindly trust in an assumed course of action.

It is argued, in reference to the differentiation between primary mental systems in Chapters 3 and 4, and illustrated in Figures 3.6 and 4.5, that these operationally closed systems each created their own expectations from the total information-input of individual and social systems. Although these systems are interdependent and although their operationally closed computation can only be perceived consciously through the central ego system states, as explained in Chapters 3 and 4, each of these mental (representative) systems co-creates specific kinds of expectations that all have factual, temporal and social dimensions (as discussed in the previous chapter), which are considered in relation to communication themes in NDSOs in the section that follows.

The visual/sensory system, for example, may create expectations of a specific NDSO, based on the information-input related to the meeting environment, the appearance and general non-verbal behaviour and/or communication of other members, the appearance of the products, the presentation of the information and the different dimensions of selections of utterance that are perceived through this operationally closed system. The verbal/semantic system creates expectations relating to the verbal information received and created through interaction that proceeds to (co-)create meaning in other individual (psychic) and social systems. The co-creation of meaning through communication as it occurs in NDSOs is discussed in more detail below.

It has been shown in the discussion on symbolic convergence in the previous chapter that emotion plays a significant role and therefore the affective system creates its own expectations of emotion, as it is interdependent on the other mental systems and the ego system states in particular. Individuals generally select positive information and utterances within their affective systems and then articulate these selections within the verbal system as uplifting, pleasant, encouraging, validating, and so forth. The emotional expectations within NDSOs are therefore particularly significant in the unities of communication synthesis that individuals create in this environment. The expectations created within individuals' verbal systems are addressed



themes and the creation of meaning through such themes within NDSOs are identified and articulated more clearly.

It is also important to consider the reciprocal expectations that are created within other social systems which individuals belong to and co-create. Individuals expect other individuals who are not members of the NDSOs they represent to be persuaded to purchase and consume the products they are selling, or to become members of these organisations so that they can create hierarchical structures and accomplish their goals, as explained in Chapter 2.

It is clear that expectations are mixed and that individuals' behaviour or actions may be too complex to offer direct causal explanations. However, it is argued here that expectations are also created through communication, and that communication is a process steered by themes. Luhmann (1995:292) provides the link between expectations and communication themes as he states:

Expectations come into being by constraining ranges of possibilities. Finally, they are this constraint itself. What is left is then just what is expected; it benefits from the condensation. Perceptible constellations of things make that readily plausible, but the communication process, by choosing a theme and contributions to it, promptly excludes a lot and thereby grounds expectations (even if there are no prospects or nothing promised).

The section below relates the communication themes typically found within NDSOs to the communication themes referred to in the previous chapter (see 4.6).

5.6 COMMUNICATION IN NDSOs IS TYPICALLY A PROCESS STEERED BY THEMES

The discussions on the theory of symbolic convergence and the meta-theoretical description that provided some links between Luhmann's argumentation about communication and between individuals' co-creation of meaning in the previous chapter provides the background to the theoretical explanations presented in this section (see 4.6 & 4.8.3). It follows from these discussions that communication themes 1) have factual content, 2) have a temporal aspect, and 3) reach a saturation point. However, certain broad communication themes seem to appear and re-appear almost universally. Such themes were identified within symbolic convergence theory as dramas and motives that become imbedded in fantasy themes and that create rhetorical visions and that can be differentiated further in terms of reality, time and moral dimensions. Luhmann (1995:150-151) refers to sincerity and insincerity as a theme within what he refers to as the paradox of communication, as was shown in the discussion of interaction within the theory of the coordinated management of

meaning in the previous chapter. It is considered here that individuals' conscious or unconscious perception of sincerity or insincerity may be influenced by their perception of speech acts that represent communicators' intentions and relate to individuals expectations as discussed earlier. Table 5.3 below presents a summary of the discussion on communication themes in NDSOs in this section.

Table 5.3: Communication themes in NDSOs

COMMUNICATION THEMES IN NETWORK DIRECT SELLING ORGANISATIONS		
Pragmatic themes (motives for achievement)	<ul style="list-style-type: none"> • Organisational identity/image • Individual objectives/goals (potentialities) • Individual/group actions • Group goals/objectives • Benefits/rewards 	<ul style="list-style-type: none"> • FACTUAL DIMENSIONS
Social themes (motives for social affiliation)	<ul style="list-style-type: none"> • Identification • Relationships • Shared consciousness • Social benefits (esteem, affiliation, collaboration) 	<ul style="list-style-type: none"> • TEMPORAL DIMENSIONS
Righteous themes (motives for mastery)	<ul style="list-style-type: none"> • Success (potentiality) • Social differentiation • Social responsibility • Morality • Advocacy 	<ul style="list-style-type: none"> • SOCIAL DIMENSIONS

It was shown in the discussion of symbolic convergence and communication themes in the previous chapter that communication is a process steered by themes. Within the framework of symbolic convergence theory and related to the theory of the coordinated management, the universal themes shown in Table 5.3 above were identified. Luhmann (1995:155) states that "one requirement of sociable communication is selecting themes to which everyone present can contribute something, themes that do not tempt anyone to exhibit his individuality and that give each one the chance to make satisfying individual contribution in which he can be recognized". From the understanding that members of NDSOs have regular group meetings (besides the interpersonal interaction that also occurs frequently) these universal communication themes can be further differentiated by identifying communication

themes that typically feature in communicative activities of NDSOs, as categorised in Table 5.3. These themes may co-occur or overlap to certain degrees depending on the specific characteristics and dimensions of different social systems.

Laflamme (2008) shows that the factual, time and social dimensions of meaning and experience constitute a horizon of meaning references that are condensed into themes. The purpose of the identification of these dimensions in this section is to provide a background to similar dimensions that apply to the creation of meaning in section 5.7 below and the description of these themes in the previous chapter refers to the discussion in the section that follows.

5.6.1 Pragmatic communication themes in NDSOs

Pragmatic themes in NDSOs are typically grounded in the identity and image of the particular organisation that forms the foundations of the training and information they present and distribute to members. From the particular NDSO perspective, the purpose of these communication themes is to promote product advocacy, brand identity and loyalty, and shared purpose. From the individual members' perspectives, the pragmatic communication themes relating to the organisation create information and utterance, which determine the selection of the individual's understanding as it relates to the individual's expectations. The expectations are created in relation to the perceptions of the organisational image and identity, as well as the product information that is co-created by the utterances selected during the interaction between members and other individuals. In GNLD, for example, some of the health products have won international awards. The detailed catalogues containing product information become a pragmatic communication theme through which members confirm and validate their purposes. This communication theme becomes a communication theme in other social systems where converted members consider it to be their moral imperative to promote the consumption of these products for the benefit of all.

Individual objectives and goals become a communication theme within NDSOs in particular, because the individual is presented with the potential to accomplish self-actualisation, insofar as such self-actualisation is described as (financial) independence and all it may encompass for different individuals within different social systems. It is typical for group distributors in NDSOs (as was observed in Avroy Shlain) to set specific sales objectives for individual members that are calculated to accomplish a group sales target, that is in turn utilised to obtain an area sales target. The individual, group and area objectives are typical communication themes that are related to the factual, temporal and social dimensions.

Current objectives and goals are compared to the logistical information (factual) that is also provided to all members on a frequent basis and that is compared to past and future objectives (temporal) and related to the individuals' and group's accomplishments (social). This pragmatic communication theme creates selections of the third selection in the unity of communication synthesis, namely *understanding*, which may be described by terms such as *responsibility, accountability, obligation, or expectation*.

It follows that the pragmatic theme of goals and achievements steers individuals' interaction in other communicative contexts towards the accomplishment of these goals and objectives by increasing interaction and coordinating actions, which may become evident in their speech acts, even if they are not conscious of this. It has to be stated that the most prominent goal presented to members of NDSOs is the recruitment of other members. This goal is emphasised and enforced by prohibiting members from earning the maximum profit from sales unless new members have been recruited, as it has been observed in Avroy Shlain Cosmetics, for example.

In a similar way the group goals and objectives become a pragmatic communication theme. Individuals perceive themselves to be members of a team and a competitive environment is created between and among group members and other groups. It has to be reiterated that because of these groups' social character, other pragmatic goals become integrated with this pragmatic theme. An individual may, for example, decide to demonstrate the application of products by arranging a social event such as a "tea party" (as was explained in Chapter 2). Another group member may volunteer to mind this individual's children so that this objective can be accomplished. Similarly, other pragmatic communication themes relating to the accomplishment of group goals and objectives are continually created.

The personal and financial benefits or rewards constitute another pragmatic communication theme within NDSOs. Individuals are generally praised and acknowledged for their accomplishments, which are usually acknowledged during meetings. Members who meet or exceed sales targets are usually singled out for praise, and their accomplishments are used to inspire and motivate other members. Such members are often requested to share their experiences and strategies with other members to demonstrate the actualisation of the potentialities that other members come to virtualise. As it was observed in Avroy Shlain cosmetics, for example, individuals who accomplished a set sales target for a given month would receive a reward such as an umbrella or handbag with the company logo. These rewards have symbolic rather than material value, but they become pragmatic

communication themes that drive individuals towards the accomplishment of individual and group sales targets and the overall goals and objectives of the organisation. The section below considers the social communication themes that are created within NDSOs.

5.6.2 Social communication themes in NDSOs

It has been explicated in the discussions in the previous chapters that NDSOs are essentially informal and that the many different communicative contexts in these organisations are created through socialisation.¹⁶⁴ Social themes are therefore prominent and significant in NDSOs.

One of the primary social communication themes in NDSOs is identification,¹⁶⁵ which has been linked to recursivity and language in the discussions in the previous chapter (see 4.8.4). As Luhmann (2002:121-122) states: “Obviously there are countless distinctions that can function as the contexts of the formation of identity, among them the ontological distinction between being and nonbeing with which one can generate ‘somethings’” In the context of this discussion the identification between individuals lies predominantly in individuals being or not being members of NDSOs.

Typical sources of identification have been labelled as material, idealistic, and formal. The material identification between and among members of NDSOs is usually represented in symbolic tokens, such as the organisation’s badges or other accessories that represent membership or levels of accomplishment within the organisation. These tokens can be described as symbolic abbreviations and may lead to symbolic generalisations that can represent an infinite potentiality of meanings, as determined by operationally closed self-referential systems, jointly or respectively.

The idealistic identification between and among members of NDSOs is evident from their mere membership and participation in organisational activities, such as meetings or other gatherings. The formal identification in these organisations can be witnessed in the rituals and ceremonies and titles that are awarded to different levels of hierarchy within these organisations. The aspiration to accomplish these hierarchies, which are associated with the

¹⁶⁴ Cf. Lueg and Finney (2007); Evans, Stan and Murray (2008); and Menguc, Han and Auh (2007) for further considerations on socialisation as it can be distinguished among different types of organizations and cultures. Also see Vanderstraeten (2000) for his discussion on autopoiesis and socialisation, and Luhmann’s reconceptualisation of communication and socialisation. This discussion relates to the broader social system and transcends the boundaries of applications in this study.

¹⁶⁵ See Pratt (2000) for his discussion on identification among Amway distributors.

different forms of identification, is usually a central social communication theme within NDSOs, as it is aligned with the general purpose of membership.

The relationships between individuals and groups within NDSOs create another significant social communication theme within NDSOs. The earning potential of members is increased by the sales of their recruits and therefore the creation and maintenance of relationships between and among members of NDSOs as well as the relationships between members and their clients are emphasised. Supporting and developing other members create normative expectations within these organisations.

The shared consciousness of purpose as it relates to individuals, groups and the organisation is a social communication theme that is usually related to members' actualisation of the potentialities, in other words the accomplishment of organisational, group, or individual (sales) objectives. These accomplishments become sources of virtualisation and re-virtualisation of potentialities for other members. It is noted here, in reference to Maslow's hierarchy of needs, that Chapman [sa] adds "transcendent" needs as the highest level of needs, and this refers to helping others accomplish self-actualisation. The need to help others can be described a communication theme that is interwoven in pragmatic, social as well as righteous communication themes in NDSOs.

Social benefits such as esteem, acknowledgment, and self-worth create a social communication theme that drives members of NDSOs in general. Whereas a person may be a receptionist or assistant in his or her formal occupation, he or she gains titles such as "ruby director" or "group distributor", which is usually represented by a symbolic token, as referred to earlier. It has been shown in Chapter 2 that the majority of members in NDSOs participate in direct selling on a part-time basis. It has also been discussed that members usually involve most of their acquaintances in their selling activities and therefore the social esteem accomplished within NDSOs is often extended to their social communication themes within other social systems. Therefore the social benefits associated with individuals' membership frequently become social communication themes.

It was shown in the previous chapter in the discussion of symbolic convergence theory in particular that symbolic convergence occurs in dramatic format and that it is characterised by emotion. It has also been discussed that individuals as composite unities of biological and mental systems, with specific reference to the affective and ego systems, are necessarily driven by emotion to greater or lesser extents. Emotional perception and/or expression are

therefore an integral part of overall perception. However, the section below discusses righteous communication themes that evoke particular emotional responses as they relate to ego-system states.

5.6.3 Righteous communication themes in NDSOs

It has been shown in the discussion on expectations earlier that individuals have multiple expectations that may coincide or may be in conflict. If it is generally assumed that individuals join NDSOs for financial reasons, it must also be assumed that these individuals perceive themselves to be in some kind of financial position in relation to the other social systems they relate themselves to or differentiate themselves by. The financial positions individuals perceive necessarily create expectations or desires to overcome such financial difficulties that usually extend to psychological and emotional difficulties they may encounter. Other socio-psychological factors such as the high divorce rate, for example, may add to individuals' perceptions of victimisation, frustration, inadequacy, or other ego-system states. In this regard, individuals' narratives or stories relating to their aspirations or success become righteous communication themes in NDSOs. Righteous themes generally contain emotional meanings described in terms such as mastery, victory, vindication, justice, self-actualisation, and so forth. Such narratives typically include heroes and villains – for example, members' stories about their mastery of a situation where they were subjected to authority and gained freedom. The emotions evoked through the narratives in groups within NDSOs create another dimension of identification and enhances further cohesion between and among group members.¹⁶⁶ They come to see their goals as similar, and experience relief by narrating their experiences.

The dimensions of morality that are discussed in the following section relate to righteous purposes and normative expectations. It was shown in Chapter 2 that members of NDSOs become consumers and product advocates, and their belief in the products and organisations they represent may become righteous themes insofar as they consider it to be almost their moral imperative to introduce members of other social systems to the benefits they perceive. As remarked earlier, Biggart (1989) identified this kind of orientation as value rationality.

¹⁶⁶ Cf. Wolfson and Pearce (1983) for their discussion on self-disclosure that occurs through conversations where apparently mundane stories can be extraordinarily complex.

The communication themes described create certain meanings within operationally closed psychic and social systems as determined by the self-reference of various systems. It is also noted that culture provides themes that are available for quick and readily understandable reception in concrete communication processes (Luhmann 1995:165). It is further noted that NDSOs continuously co-create their own cultures that are unique and cannot be described without specific reference to a specific system. The section below describes how the communication themes discussed in this section initiate the co-creation of meaning that creates NDSOs.

5.7 COMMUNICATION THEMES INITIATE THE CO-CREATION OF MEANING

It follows from the discussions on meaning in Chapters 3 and 4 that social systems are created by meaning, as was linked to the third selection in the unity of the synthesis of communication, namely understanding. The discussions on meaning, meaning and action, as well as understanding in the previous chapter sketch the background to the discussion in this section. The creation of meaning within NDSOs is complex as it is in most other communicative situations, as Luhmann (2002:84) observes: "A system that is bound to use meaning as a medium constitutes an endless but complex world in which everything has meaning, in which everything gives many cues for subsequent operations and thereby sustains autopoiesis, the self-reproduction of the system out of its own products. The description of meanings that are created within NDSOs within the dimensions of reality, time, morality and emotion aims to provide further clarity. It is reiterated here, as has been shown in the discussions on meaning in the previous chapter, and as Laflamme (2008:70) concurs, that countless operationally closed, yet interdependent systems are at work within humans.

Table 5.4 below summarises the key considerations relating to meaning that have been addressed in previous discussions and relates them to the dimensions that characterise dramatising messages that were identified in the discussion of symbolic convergence theory in Chapter 4.

Table 5.4: The creation of meaning in NDSOs

THE CO-CREATION OF MEANING IN NDSOs	
Meaning is the unity of the virtualisation and actualisation and re-virtualisation and re-actualisation of potentialities.	<ul style="list-style-type: none"> • REALITY DIMENSION • TIME DIMENSION • MORAL DIMENSION • EMOTIONAL DIMENSION
Meaning can be conditioned.	
Meaning is a medium of communication (meaning can only refer to meaning).	
Meaning is basally unstable with a built-in compulsion to self-alteration.	
Meaning is attributed to actions as points of connectivity.	
Meaning is created in dramatic format	

Individuals create and co-create meaning within themselves and within operationally closed social systems such as NDSOs. As was shown in the sections above, many kinds of information and utterance determine the selections that create the unity of the synthesis of communication as elementary units of social systems. It has also been shown that the potentialities inherent in meaning itself can be linked to the potentialities imbedded in networks, expectations and communication themes relating to NDSOs. It follows from the discussions on language in the previous chapter that meaning can be conditioned through language and that it becomes a medium in itself through symbolic interactionism and symbolic convergence.

While all the considerations and discussions relating to meaning have specific significance, the attribution of meaning in NDSOs is of fundamental importance to the theoretical explanation in this chapter. The global statistics relating to membership and sales activities in NDSOs represent *actions*. Individuals' and groups' understandings are indeterminable, as has been shown in the discussions on complexity theories in Chapter 3. Their actions, however, become information and utterance that represent certain meanings or understanding to observers. The dimensions of meaning created in dramatic format in NDSO are related to the communication themes identified in the previous section.

5.7.1 The reality dimension

The reality dimension deals with whether or not the stories individuals share in NDSO are fictitious or non-fictitious, real or unreal. Realistic fiction¹⁶⁷ is defined as a category of dramatising messages that consists of realistic but fictitious fantasies that are seemingly possible or plausible. Bormann, Knutson and Musolf (1997:259) explain that the natural order and the events portrayed could actually happen, even though the typical disclaimer is that the persons or events portrayed in the work do not represent actual people or happenings. It can overlap between isomorphic and escapist predispositions. Of great importance is that in direct selling, realistic fiction is particularly prominent in that members share fantasies of the future that are fictitious insofar as they have not yet occurred, but they furnish an important coping function of groups in setting goals and shaping plans and procedures. Bormann (1996:109) says shared fantasies can influence group members' ability to cope with changing circumstances, their external environment, and their internal conflict, because group members may share fantasies that enable them to cope with such matters. An example would be a meeting where group members discuss the challenges of the month ahead while they envisage great sales that will qualify them for the overseas trip rewarded to members who accomplish a set sales target.

The realistic non-fiction category consists of "events and people that are factual, actual, tangible, authentic, documented, certifiable, and corroborated" (Bormann, Knutson & Musolf 1997:259). This is probably the most significant dimension in direct selling, because the group members are presented with narratives of people who have accomplished the goals, objectives and dreams offered by direct selling. This is legitimised further by members' experiences in other contexts such as conferences or ceremonies, where they witness the successes of other members who are rewarded for their accomplishments. Such experiences may then enhance the realistic fiction category of messages that are shared in the small group contexts, and that serve to motivate members to action. By witnessing the achievements of other direct selling agents, or sharing the narratives of such achievements, members become more predisposed to share pragmatic realistic messages with a clear coping function that is isomorphic with the internal realistic fantasy life of the subjects. It is this dimension in particular that leads people to believe that they can achieve success through direct selling.

¹⁶⁷ Cf. Wilson and Sperber (1993) for a discussion of "truth-conditional" and "non-truth-conditional" aspects of utterances that can perform a variety of speech acts.

In reference to the pragmatic communication themes discussed earlier, it can be argued that members' narratives relating to product utility and value or even sales may also obtain a fictional dimension of meaning insofar as they may pretend to have used certain products for the purpose of making contributions to the group conversations or to gain esteem within the group. Le Grange (2010)¹⁶⁸, a group distributor in GNLD, for example, indicated that a certain member of her group praised the benefits of a particular product, and yet she observed on the sales report that this member had never purchased this product. Another example was found in Avroy Shlain Cosmetics, where a certain individual accomplished significant sales and was invited to address other group members to share her success story. It was discovered later that this member had actually been accumulating stock and that she had in fact not made these sales. Her sales performance and hence the source of inspiration and motivation presented to other members was fictitious and created ungrounded expectations within other individuals and groups.

5.7.2 The time dimension

The time dimension includes the past, present and future, as addressed in reference to the temporal dimension in previous discussions. Within the theoretical framework of symbolic convergence, Bormann (1982:52) says many group fantasy themes are about experiences in the past or what is envisioned for the future. In the direct selling context, small groups have been found to share group fantasies in which the members reflected on the lack of group cohesion or purpose they had experienced in other organisational environments and had since discovered in their direct selling groups. Successful direct selling agents often reflect on how their lives have changed as a result of their involvement in direct selling. They compare their current successes to their failures in the past, and in doing so, they attempt to motivate other group members to action in the future. It has been shown in the discussions on complexity in Chapter 3 that complexity increases within individuals and hence meaning increases. The time dimension, as it relates to meaning in NDSOs, and as it relates to the discussion of expectations in this chapter, has to be considered as related to the instability of meaning. Existing meanings become more complex as the variations and selections within the unity of the synthesis of communication increase. In terms of the definition of recursivity, self-reference is created in relation to past and future events of the same kind, as will be shown in the differentiation between kinds of self-reference below.

¹⁶⁸ Personal conversation with D Le Grange: Member of GBLD, 13 March 2010.

5.7.3 The moral dimension

Communication within NDSOs that addresses questions and answers about right and wrong, praiseworthy and culpable, principled and unprincipled can be distinguished in this dimension. Bormann, Knutson and Musolf (1997:260) make a further distinction between moral-sentimental, moral-intellectual, and immoral sub-categories.

The moral-sentimental sub-category refers to dramatisations that portray scenarios in melodramatic, simple, black-and-white terms that clearly express the moral values involved. Bormann, Knutson and Musolf (1997:260) capture the essence of such dramatisations as follows:

The heroes of such melodramas are good and, although strongly tested, emerge victorious with their virtue intact because they have done the moral thing (according to whatever moral system is being portrayed) at the very testing point. The villains, who may be the central characters, remain the villains to the end and get their just deserts. Often there is an implied moral precept on the order of 'It isn't if you win or lose but how you play the game.' Or 'ill-gotten gains only bring unhappiness in the end'.

It may appear unlikely for members in direct selling groups to share dramatising messages of this nature, but the cohesion that may and do form in some groups include the sharing of dramatising message that may relate to other areas in their lives. It has been recorded that approximately eighty percent of direct selling agents are women, and also that women are often attracted to the supportive nature of some direct selling groups. As Bormann (1972:400) explained:

Individuals in rhetorical transactions create subjective worlds of common expectations and meanings. Against the panorama of large events and seemingly unchangeable forces of society at large or of nature the individual often feels lost and hopeless. One coping mechanism is to dream an individual fantasy which provides a sense of meaning and significance for the individual and helps protect him from the pressures of natural calamity and social disaster. The rhetorical vision serves much the same coping function for those who participate in the drama and often with much more force because of the supportive warmth of like-minded companions.

Women who are, for example, distressed about their financial situations, or feel victimised by an unfair, unrewarding, unsupportive, or unfair work environment where their needs are not met, may portray their employers in their full-time occupations (since most direct selling agents are involved in direct selling on a part-time basis, as illustrated in Chapter 2) as the villains in their dramatisations. In the same way unsupportive spouses, or other parties that may place such individuals in distress, may be identified as villains and the dramatisations shared could form a rhetorical vision of victory for members who achieve success in direct selling, as referred to in the description of righteous communication themes earlier. It is clear

that such dramatising messages can be popular among groups in direct selling, particularly when they incorporate the realistic non-fiction category of dramatising messages.

The moral-intellectual sub-category consists of more complicated stories in which the central characters sometimes win and sometimes lose. Dramatising messages in this category portray characters who live in a complicated world where things are never black or white, never clearly good or clearly evil. The villains have redeeming qualities and the heroes are flawed. Characters may change and grow better or worse because of the narrative action. Moral values are intellectualised and differing views of reality are presented in conflict, sometimes violently. A resolution is not necessarily involved but the stories do have clear, if complex, moral implications. The stories imply that moral and ethical issues are complicated and there is something to be said for several approaches to ethics. Fantasies of this kind would not be common in the direct selling environment for several reasons, such as the time limit of meetings, the nature of topics that are usually uplifting and aimed at motivating members, and so forth. As Laflamme (2008:76-77) observes, reciprocal enabling occurs through the binary scheme of morality, and reciprocity becomes the key word for dealing with complexity. This is further enhanced by the emotional dimension of meaning, described in the section below.

5.7.4 The emotional dimension

In the discussion of the affective system in Chapters 3 and 4, it was shown that emotions refer to internal system states that are determined by the individual's personality to a significant degree. The emotional dimension of meaning in NDSOs can be described broadly in terms of whether members are predominantly happy or sad, although varying degrees may exist at different times within this binary opposition. While members in direct selling groups and other contexts may share some sad experiences, they mainly portray happy dramas portraying members successfully meeting the obstacles that come their way. This entices them to believe that through perseverance, commitment and dedication they can realise their dreams, leaving them with feelings of hope, inspiration and perhaps satisfaction. The cohesion among group members may contribute to the emotional dimension in that members include parts of their personal lives and experiences that they share with other group members and incorporate in the dramatising messages shared in these group contexts.

The valorisation of members' performance and the ceremonies and rituals followed within many NDSOs often involves intense emotional communication content that has a significant impact on individuals and groups within NDSOs. The pressure to accomplish sales objectives adds a further emotional dimension to the meaning and communication created in NDSOs insofar as individual members' performance or lack of performance has consequences for their group and area distributors. The structures of NDSO have been described as generally informal and social, although it has been observed that significant pressure is placed on higher levels of hierarchy within these organisations, with specific reference to Avroy Shlain Cosmetics, for example.

The section below aims to show that all of the communication processes and dimensions that have been discussed in this section steer or direct individuals' hierarchies of communication contexts (as described in the discussion on the theory of the coordinated management of meaning in the previous chapter) towards self-reference as the central point of recursivity.

5.8 NETWORKS CREATE SELF-REFERENTIAL SYSTEMS

Self-referential systems have been described in the previous chapter as systems that have the ability to establish relations with themselves and to differentiate these relations from relations with their environment (Luhmann 1995:13). It was shown in Figure 4.5 in the previous chapter that communication creates complex and even multiplex operationally closed self-referential systems within and among individuals. The ego system was identified as the central self-referential system that exists in a given state at any given time and that co-creates the selection and integration of other social and psychic system inputs. The following observation Luhmann (1995:137) makes relates to the earlier discussion of the increase in interaction through networks: "Self-reference on the level of basal processes is possible only if at least two processing units that operate with information are present and if they can relate to each other and therefore to themselves". Table 5.5 below identifies some of the different kinds of self-reference that can establish and differentiate the relations between systems and their environment, and that can be applied to individual (psychic) as well as social systems, such as NDSOs.

Table 5.5: A differentiation of self-reference within individual (psychic) and social systems

A DIFFERENTIATION OF SELF-REFERENCE IN NDSOs	
Self-virtualisation.	Visualisation/imagination of the accomplishment of the potential rewards associated with NDSOs
Self-actualisation	Membership and participation in NDSOs
Self-determination	Making selections that are aligned with NDSOs in attempt to meet expectations; perception of control
Self-abstraction	Enables the replication of the same structures within the object itself.
Self-organisation	Individuals identify or create patterns of behaviour to reduce complexity.
Self-(re)presentation	Individuals present and/or represent themselves in their virtualised and actualised capacities as members of NDSOs.
Self-observation/differentiation	Individuals differentiate themselves from other individuals through self-observation and self-assessment as propelled by communication themes within NDSOs.
Self-simplification	NDSO present potential solutions to complex realities through hierarchisation as a specific case of differentiation.
Self-socialisation	Socialisation is self-socialisation because its basic process is the self-referential reproduction of the system that brings about and experiences socialisation in itself.
Self-reproduction	Action systems must always reproduce actions.

These kinds of self-reference can be considered in relation to the different mental representative systems referred to in several discussions in the previous chapters, as well as this chapter. It has been said earlier and it is reiterated here, that the selections of information, utterance, and understanding, as well as expectation, which are created within NDSOs in particular, steer the hierarchy of communication contexts (as identified in the discussion of the theory of the coordinated management of meaning in the previous chapter) towards self-reference. These kinds of self-reference that are created within operationally closed individual (psychic) as well as social systems are all interrelated and are described individually here below.

- **Self-virtualisation**

NDSOs represent many new potentialities through the increased interaction, variation and selection created through networks and the expectations that are created through these

structures, as discussed in this chapter. Through communication themes and narratives that are created and shared within these social systems, individuals virtualise (visualise) and re-virtualise the potentialities of meaning and actions that are presented to them through communication. The potential to accomplish financial and personal autonomy and freedom, together with the potential of other social dimensions that have been discussed, enhances individuals' desire to accomplish these potentialities and to set their objectives accordingly.

- ***Self-actualisation***

The statistics presented in Chapter 2 and referred to in the theoretical chapters that followed made it apparent that the actualisation of the potentialities presented by NDSOs has a very low probability, as far as financial reward is concerned. However, the increased interaction, and hence the increase in variation and selections the individual creates in these social systems, may lead to other levels of self-actualisation by increasing, for example, their confidence, or social support system. Le Grange (2010), for example, stated that although she has not accomplished the potentiality of financial freedom and in fact did not earn money, she gained the confidence to terminate an unhappy marriage and to re-establish her autonomy at a higher level of self-actualisation. It can therefore be seen that the self-concept at the highest level of communication hierarchies can be redefined through membership of an NDSO, even if financial objectives are not actualised.

- ***Self-determination***

One of the most significant kinds of self-reference is individuals' perception that they are autonomous and that they can control their destiny. The potentialities presented by NDSOs provide individuals with the expectation that this is possible. Self-determination emphasises the variation in selections that are available, and the marked increase in membership figures in NDSOs presented in Chapter 2 illustrated that this kind of self-reference is significant. The potentiality of control is in itself a central intrapersonal communication theme within most individuals. Self-determination is directly linked to the discussions on control in Chapter 3 (see 3.4), with specific reference to perceptual control theory.

- ***Self-abstraction***

Luhmann (1995:2-3) distinguishes between conceptual abstraction and self-abstraction, and describes instances of self-abstraction as "those that acquire structure by comparing their

features with the features of other systems”. While this kind of self-reference relates closely to self-observation, as is described below, it can be considered that, in relation to the creation of complex systems within individual and social systems, as was discussed in Chapter 3, individuals self-create structures that they observe in other systems. This is apparent in Figures 2.7, 2.8, 2.9 and 2.10, where the replication of structures in NDSOs is illustrated. The understanding of self-abstraction can also be linked to the discussion on requisite variety in Chapter 3, where it was indicated that internal and external complexity increase reciprocally. It can therefore be argued that network structures in NDSOs that increase interaction, variation and selection also increase self-abstraction within individual (psychic) systems through the comparison and adaptation of structures that in turn increase potentialities and complexity within individual (psychic) and social systems.

- ***Self-organisation***

As was shown in the discussions in Chapter 3 and extended in Chapter 4, high levels of complexity require the reduction of complexity, particularly when systems reach chaotic states. As Luhmann (1995:166) states, meaning is attributed to actions as the reduction of complexity. Therefore, the potentialities of meaning created in NDSOs present individuals with selections that may reduce the complexity they experience within their conscious reality. Through the creation of new organisations or subsystems within NDSOs, they create systems in which they can explore self-organisation. They discover strategies to create a different kind of order in their lives, even if it results in disappointment or disorder eventually. It was shown in the discussions in Chapter 3 that individuals’ behaviour is unpredictable because of the multiplexity of systems within the individual as well as other social systems that create the environment for the different mental representative systems. Chaotic systems may self-organise and create structure, but can also become chaotic again through the formation of dissipative structures, for example.

- ***Self-(re)presentation***

Individuals who join NDSOs find themselves in communicative situations where they have to present themselves as, for example, an independent sales distributor or a “ruby director” – in other words, they have to act in this designated capacity. In doing so this presentation or representation of the particular organisation invokes the possibility of either acceptance or rejection, as Luhmann (1995:148) states: “Every assertion provokes its contrary”. However, in spite of the perceived rejection individuals experience during their (re)presentation of the

organisation or its products or its potentialities, the acceptance or rejection of the expected and understood selections is not part of the communicative event. As Luhmann (1995:148) states: "Viewed dynamically, the unity of an individual communication is merely its connectivity. It must be and remain a unity so that it can become difference once again in another form, namely the difference between acceptance and rejection". It is therefore apparent, also in reference to the example of a communicative event in the discussion of meaning and action in the previous chapter (see 4.8.1) that the self-(re)presentation of individuals in NDSOs may encourage or discourage their participation as determined by their selections of information and utterance, and ultimately their understanding as it relates to the acceptance or rejection of their communication. The fact that individuals are encouraged to approach their close family and friends in their initial endeavours within this selling environment may lead to the (mis)understanding that the potentialities of meaning they attribute to actions and communication within these organisations actually exist.

- ***Self-observation/differentiation***

From the descriptions of self-observation presented in the discussions on cybernetics, and particularly second-order cybernetics in Chapter 3, it has become apparent that the observer cannot be separated from the observation. The brief description of third-order cybernetics provided further insight into the understanding of self-referential systems observing themselves at different levels of observation, in other words within the individual as well as within social systems. In this way, individuals who are members of NDSOs continuously observe themselves through a process of differentiation whereby they compare their actions or performance to other members in the organisation through virtualisation and actualisation as referred to in this chapter and also in the previous chapter. Self-observation and/or differentiation continuously co-create and re-create individuals' normative and cognitive expectations, as described earlier. Luhmann (1995:175) states: "Communication is the elemental unit of social systems' self-observation and self-description. Both are highly complex situations that are used as units and abbreviated to the format necessary for this". In view of the potentialities imbedded in the definition and description of meaning in this chapter, it follows that the self-observation or differentiation within individual (psychic) or social systems may determine the continued participation or the withdrawal from NDSOs. It was shown in the discussion in Chapter 2 that the drop-out rate in NDSOs is high, although the presence of passive members in these organisations makes it impossible to determine the precise drop-out rate with any certainty.

The self-observation or differentiation of individuals can be extended to their product advocacy, whereby their consumption or utilisation of products becomes a form of self-fulfilling prophecy. Members who start consuming particular skin care products, for example, may report that they see particular results. This can also be a form of counter-attitudinal advocacy, whereby individuals persuade themselves of product utility value by attempting to persuade others. The results or effects of the consumption or utilisation of these products may be unrelated to the specific product, because the individual may, for example, start taking care of her skin in a way that she had not done before, and the same results could have been produced with the application of different products. The self-observation and/or differentiation process may therefore be enhanced through membership of an NDSO.

- ***Self-simplification***

Luhmann (1995:19) states that a conceptual distinction should be drawn between differentiation and hierarchisation, which he describes as a specific case of differentiation, namely self-simplification. He argues that when an individual can assume a hierarchy, s/he can regulate the scope of observation and description according to how many levels can be distinguished. It was shown in Figures 2.7, 2.8, 2.9 and 2.10 in Chapter 2 how hierarchies develop in NDSOs. It can therefore be argued that individuals experience self-simplification through the identification of the potential hierarchies through which the potentialities represented by NDSOs can be accomplished. This kind of self-reference relates to the discussions on the reduction of complexity – in other words, individuals' propensity to reduce uncertainty (entropy), as was explained in Chapter 3. Luhmann (1995:137) also relates self-simplification to the reduction of complexity: "Action is constituted in social systems by means of communication and attribution as a reduction of complexity, as an indispensable self-simplification of the system". The potentialities inherent in communication within NDSOs, which are articulated as expectations and reinforced by communication themes and the co-creation of meanings, constitute the self-simplification that can be identified within individuals and groups in these social systems.

- ***Self-socialisation***

Luhmann (1995:241) argues that socialisation is necessarily self-socialisation, insofar as it does not occur by transferring a meaning pattern from one system to another. The basic process of social systems, such as NDSOs, is "the self-referential reproduction of the system that brings about and experiences socialization in itself" (Luhmann 1995:241). He compares

socialisation to evolution in that it presupposes basal self-reference and deviant reproduction. In reference to the inability to accomplish the potentialities presented by NDSOs, as indicated in Chapter 2, the socialisation can be considered deviant. Vanderstraeten (2000:590) observes that the “opportunities which our contemporary society generate might endanger its own structural characteristics”. Through the self-socialisation that occurs within NDSOs, patterns of positive deviance in society, such as the dominant spirit of performance and competition, an emphasis on exceeding normal expectations, and also its legitimisation of sub-cultures can be observed. Luhmann (1995:240) states that in dealing with the question of socialisation in social systems, the following should be remembered:

1. that problems of causality are secondary to problems of self-reference;
2. that all information processing “takes off” not from identities (e.g., grounds) but from differences;
3. that communication (as continuing and reproducing autopoiesis) is distinct from action (as constituting and reproducing autopoiesis) is distinct from action (as the constituted element of social systems);
4. that human beings are the environment of social systems; and
5. that the relationship of human beings to social systems is one of interpenetration.

Luhmann (1995:241) emphasises that research on socialisation cannot be oversimplified by working with premises from within, such as linear causality, according to which the social systems and/or order are shapes the individual through its agents. Individuals create social systems and also create systems within themselves, as the discussions on second-order cybernetics in Chapter 3 have shown. The description of self-reproduction below further clarifies this explanation.

- ***Self-reproduction***

Self-referential systems have been described at the beginning of this section, and also in the previous chapters, as systems that have the ability to establish relations with themselves and to differentiate these relations from relations with their environment, as referred to throughout the discussions in this thesis. Luhmann (1995:35) argues that “reproduction that is self-referential, ‘autopoietic’ on the level of its elements, must adhere to the type of element that the system defines”. Communication has been described as the basic elements of the social system. All the sections thus far in this chapter have illuminated and described how communication, action and meaning become elements of communication through the

unity of the synthesis of information, utterance, and understanding that can potentially be created within NDSOs. It is therefore evident that individuals *select* the information and utterance from the information-input they receive from their environments, and that they further *select* the understanding and hence meaning they attribute to such information. It is further evident that the actions of other individuals who join NDSOs or continue their membership of NDSOs. As self-creating systems, social systems such as NDSOs produce their elements (communication) on this basis and reproduce themselves in the process. By recruiting other members and by selling products individuals reproduce the communication elements that reproduce these social systems.

Luhmann (1995:36) argues that problems relating to the theorising about autopoiesis (self-creation), and hence self-reproduction, do not lie in repetition, but in connectivity:

The differentiation of self-referentially closed network of reproduction proves to be indispensable exactly in view of [this] problem of connectivity; and it is possible to formulate problems of formation and change of structures, in other words, that must make possible the connectivity of autopoietic reproduction if they do not want to give up the basis for their own existence, and this limits the domain of possible changes, of possible learning.

However, in considering the increase in interaction, variation, and selection referred to in the discussion of network structures in the beginning of this chapter, it is clear that the (re-)virtualisation and (re-)actualisation of potentialities through the creation of meaning between and among individuals result in the continual (re)production of subsystems within NDSOs. Regardless of the statistical information that proves the improbability of success in this industry for the vast majority of its members, the potentialities appear to perpetuate and sustain these organisations.

Considering that networks increase interaction, variation and selection between and among individuals, it is shown that the operationally closed self-referential systems within individuals, and hence the intrapersonal communication that occurs, create and co-create infinite potentialities of meaning as conveyed through actions and other dimensions of communication. The potential outcomes of communication and human actions that co-create the unity of communication synthesis, which in turn create elements of social systems such as NDSOs, are therefore infinite and indeterminable. However, the existence and continued growth of this industry clearly demonstrate that individuals who are, and who become, members self-create and reproduce meaning and further communication that accomplishes the overall objectives of this industry.

5.9 CONCLUSION

The integration of the theoretical development in this study was applied to present a theoretical explanation for the existence of NDSOs. The key theoretical concepts developed throughout this study have been integrated into a conceptual communication process flow model created for the purpose of this study to present a theoretical explanation for the existence of NDSOs as self-creating systems.

The conceptual model placed the focus on specific considerations that relate to the creation of NDSOs. It has been shown that individuals create networks through communication. Consequently, networks increase interaction, variation and selection, as these relate to the new conceptual models for the study of communication within, between, and among individuals (discussed in the previous chapter). Networks are structures that create expectations and the expectations that may be created within NDSOs were identified and discussed. Communication has been described as a process steered by themes and communication themes that can typically be found in NDSOs were identified and discussed as pragmatic, social and righteous themes. It has been shown that these themes co-create meaning as the continual virtualisation and actualisation, and re-virtualisation and re-actualisation of potentialities. While the probability or even possibility of realising the potentialities in NDSOs can be disputed, potentiality in itself remains indisputable. It is therefore the multitude of *potentialities* that sustain NDSOs. The theoretical explanation concluded with a further differentiation between kinds of self-referential systems that aimed to articulate the multiplexity of individuals as composite unities of biological and mental systems who co-create complex and even multiplex social systems such as NDSOs.

The final theoretical conclusion, contributions and limitations of the study, and recommendations for further research, are presented in the concluding chapter that follows.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

The theoretical and conceptual developments in this study introduced another understanding of cybernetics as a meta-discipline and second-order cybernetics and autopoiesis, specifically, for further development within communication theory as a field. It has been shown that the creation of networks through communication as the unity of the synthesis of information, utterance, and understanding, driven by the self-referential systems within individuals, occurs through the continuous virtualisation and actualisation of potentialities. The theoretical conclusion presented in this chapter aims to show the integration of the key considerations addressed throughout this study.

The major contribution of this study is the theoretical explanation for the existence and sustenance of NDSOs from a second-order cybernetic perspective. Another contribution is identified as a new understanding of operational closure and informational openness that presents an invitation for further discussion within communication theory as a field. Moreover, the introduction of Luhmann's theory about communication provides the groundwork for further theoretical development.

The chief limitation of this study is that it emphasises theory, perhaps at the expense of empirical study or qualitative analysis of specific cultural dimensions or media involvement. It is therefore recommended that these areas be explored in future studies. It is further recommended that communication scholars engage in discussions and debates relating to the application of cybernetics and autopoiesis as approaches to the study of organisations in particular.

6.2 THEORETICAL CONCLUSION

As their name indicates, NDSOs are created through the continuous creation of networks. Networks increase interaction, variation and selection. The communication that occurs within the process of creating and sustaining networks is created through the unity of the synthesis of information, utterance and understanding that occurs within individuals as composite unities of operationally closed biological and mental sub-systems. Communication is at all

times self-referential, and therefore so is meaning, within individual and social operationally closed systems. Meaning coordinates individuals' actions. Actions represent information and utterance that creates further unities of communication synthesis that become information and utterance, and hence communication again.

Applying this explanation to NDSOs in particular, it can be said that individuals who are members of NDSOs communicate with other individuals they attempt to recruit and in doing so they virtualise the potentialities of these organisations. Their membership is an actualisation of their virtualisation, and by attempting to recruit another individual they are re-virtualising these potentialities. By being and recruiting members of NDSOs individuals therefore continually create new operationally closed systems with new boundaries, as determined by the virtualisation and actualisation of meaning in every communicative situation in which they place themselves. This actualisation and virtualisation typically occurs through universal communication themes through which individuals create identification with points of recursivity within their operationally closed mental systems. The familiarity between members of NDSOs and their clients means that several points of recursivity, or structural couplings (identification), already exist and therefore normative expectations, such as support and encouragement, discourage the rejection of communication(s). At the same time the various individual and social systems grow more and more complex, which drives individuals to further reduction of complexity. This may occur as further actualisation or virtualisation of potentialities (in the case of members), or the termination of points of connectivity (from the perspective of individuals who are not members of NDSOs). The possibilities within and in relation to the complexity and multiplexity that exists in broader social systems are infinite.

The global growth in membership (which represents actions) becomes further information and utterance to existing and prospective members of NDSOs, who differentiate themselves in terms of the accomplishments of other members. The continual virtualisation and actualisation, and re-virtualisation and re-actualisation, of potentialities therefore sustain this industry. The external environment, which consists of other individuals as composite unities of operationally closed systems (such as families, or friendship circles for example), co-create these actualisation and virtualisation processes, usually by avoidance of dissent. In other words, people actually attend the "tea parties", and actually purchase products through network direct selling. The virtualisation and actualisation of potentialities are therefore perpetuated relative to the success or failure rate, which are themselves relative to the perceptions of any individual's self-referential systems.

The theoretical conclusion of this study is that there is no single theoretical explanation for the existence and sustenance of NDSOs. The cybernetic perspective on the study of individuals in Chapter 2 showed that linear causality is impossible as far as human individuals are concerned. The discussions on complexity theory and the integration of Carlston's associated systems theory in Chapter 3 clearly demonstrated that the information processing or computation within individuals as composite unities of biological and mental systems may create infinite potentialities of meaning and hence action. The discussions on second-order cybernetics and Luhmann's application of autopoietics to social systems further illuminated the understanding of complexity and multiplexity and the self-creating processes that occur through communication. The next section recapitulates the contributions of this study.

6.3 CONTRIBUTIONS OF THIS STUDY

The purpose of this study was to present a second-order cybernetic explanation for the existence of NDSOs as self-creating systems. Existing studies on network theory and its applications within communication theory focus predominantly on networks within organisations, and not on NDSOs as different kinds of self-creating organisations. The study aimed to open a discussion by providing theoretical grounding for further theoretical development in the field of organisational communication theory.

The reconsideration of first-order cybernetics and existing perceptions of system closure clarified the distinction between operationally closed and informationally open systems. Further exploration of Maturana and Varela's theory of autopoiesis and the relationship between biological, mental (psychic) and social systems presented theoretical support for an alternative explanation for the existence and growth of NDSOs.

Another significant contribution of this study is the development of conceptual models for the application of Luhmann's social theory of communication within communication theory as a field. In comparison to Habermas and Giddens, Luhmann has been identified as one of the most prominent social theorists of the twentieth century, but his theorising about communication in particular has until present been applied predominantly within the discipline of sociology, and requires further expansion and development within the field of communication theory. In this regard, the contribution to the development of communication theory in this study is unique. It provides the possibility of extending its application to the field of organisational communication, particularly in relation to the post-bureaucratic organisation and new laws of form.

The exploration of communication elements and processes that self-create social systems such as NDSOs makes another contribution to the understanding of the broader social system and the impact of communication between and among individuals. It also presents an alternative explanation for bottom-up thinking within organisational hierarchies. The theoretical and conceptual developments in this study lead to many questions relating to the subjectivity of knowledge, mental operations and social interaction, the control of systems (which, in essence, means the control of meaning), and the balance of integrative and disintegrative tendencies through communicative actions. New metaphors, such as the schismatic metaphor, require further exploration and integration between and among communication traditions.

6.4 LIMITATIONS OF THIS STUDY

The study of NDSOs has been based on direct observation, informal participant observation and information provided by the regulating bodies within this industry, such as WFDSA and DSASA, for example. The membership and sales figures were calculated and presented by these organisations and could not be verified. Members do not formally resign when they no longer wish to continue selling or purchasing products. They simply withdraw from activities, and therefore there is no clear indication of the actual drop-out rate among distributors.

Formal interviews with a representative sample of members within this industry were not conducted for the purposes of this study. These could perhaps be done in future in order to gain deeper insight into the perceptions of individuals involved in the industry. In addition, perhaps further differentiation between communication themes in particular cultures, for example, could establish alternative explanations.

The emphasis was placed on the development of a theoretical explanation from a second-order cybernetic perspective, and an analysis of social and/or mass media has not been included in this study. The interpenetration and interdependence between and among social systems, together with the understanding of the information input-output ratio of individuals, mean that the impact of social and public media cannot be ignored, since it represents and co-creates other operationally closed social systems. The same applies to the consideration of technology and the increased interactions it enables.

6.4.1 Recommendations for further research

It seems as if debates regarding new applications of cybernetic concepts have largely been conducted in other social scientific disciplines, and in particular sociology, despite the challenges a co-creational perspective poses for communication in general, and for organisational communication specifically. Vanderstraeten (2000:588), for example, (a sociologist) asks the following questions about communication:

Human beings are conceded greater freedom (greater complexity) than social roles, norms and structures would allow. This raises the following questions: How do human beings participate in communication, notwithstanding the autopoietic closure of psychic systems? How does participation in communication contribute to psychic system formation?

In a similar vein, Mutch, Delbridge and Ventresca (2006:607) (sociologists) place the emphasis on

... the primacy of contextuality and process in sociological analysis, an attention to causal explanation that seeks to avoid both pure voluntarism and structural determinism, a requirement for theoretical consistency across levels of analysis and an advocacy of evaluations and internal debate around the thematization of issues and problems in order to facilitate theory building within and across traditions.

It is therefore recommended that communication scholars take up the challenge to participate in, and even lead, new interdisciplinary debates.

Luhmann (2002) claims his theory about communication is new and he makes several claims about communication, such as “Communication has no goal” (Luhmann 2002:161) and “The theory of the rationality of communicative action is simply false on empirical grounds alone” (Luhmann 2002:162). Luhmann (1996:341) presents the following question and answer that guide inquiries within the study of organisations within communication theory as a field: “How is it possible to control motives if humans are conceived as subjects, that is, as self-organizing entities? The answer is: by membership.” Luhmann (2002) claims that his theory about communication is new. His theorising is fertile ground for discussions among communication scholars. The work of Von Foerster, Maturana and Varela also require further exploration and integration with or comparison to existing communication theory.

The literature study in this thesis was accompanied by continuing conversations with the supervisors of this study as well as other communication scholars, such as Overton-De Klerk¹⁶⁹, Verwey¹⁷⁰, and Crystal¹⁷¹, as a demonstration of the constructivist epistemological stance adopted in this study, with specific reference to Pask's conversation theory referred to previously. Overton-De Klerk (2011) says that further research in communication should develop depth and texture through continuous reflexivity and critical self-assessments, which will mean that outdated paradigms are no longer used in an environment that is constantly changing. Overton-De Klerk (2010) also shows that the re-assessment of cybernetics as a meta-theoretical perspective encourages conversation between and among disciplines and invites further participation in the creation of interdisciplinary understanding, with specific reference to linguistics and logic.

Verwey (2011) also urges communication scholars to engage in continuing conversations and to consider broader and deeper theoretical orientations:

By excluding meta-theories like cybernetics from our discussions communication theorists run the risk of homogenising our knowledge base and being trapped in our own intellectual assumptions. Thus far the discipline of communication has been slow to come to grips with a shift in theoretical paradigms and to grapple with the challenges that an emergent and a co-creational perspective poses for our understanding of the role of communication in autopoietic reproduction of social systems such as organisations.

As it has been shown in the theoretical discussions, the power of cybernetics as a trans-discipline is that it abstracts, from the many domains it incorporates, models of great generality. Such models serve several purposes, such as bringing order to the complex relations between disciplines, providing useful tools for ordering the complexity within disciplines, and providing a shared language for interdisciplinary communication. These models "may also serve as powerful pedagogical and cultural tools for the transmission of key insights and understandings to succeeding generations" (Scott 2001a:412).

6.5 CONCLUSION

It has been shown in this study that, in clear defiance of economic logic, NDSOs are entrenched in contemporary society, and that until their actions provoke dissent rather than encouragement, these organisations will continue to exist and grow, regardless of the criticism they attract.

¹⁶⁹ Personal conversation with N Overton De Klerk: Professor of Strategic Communication, 23 September 2010; 14 March 2011

¹⁷⁰ Personal conversation with S Verwey: Professor of Strategic Communication, 19 August 2010; 14 March 2011

¹⁷¹ Personal conversation with A Crystal: Lecturer in Strategic Communication, 13 March 2009; 21 July 2010; 11 March 2011.

But perhaps the criticism against NDSOs has to be redirected towards social systems themselves. Where does the valorisation of money stem from? What drives individuals to relate all selections they make in the unities of communication synthesis to money and to create their realities in monetary terms? Individuals cannot claim to be the victims of social systems they co-create even if it is through silence – *Qui tacet consentire videtur*. Just as every person who purchases stolen goods is as accountable as the thieves, so all individuals who participate in the co-creation of NDSOs are co-accountable for the existence of the problems created through the continued existence of this industry. However, as with most other social dilemmas, the broader social ideologies create meta-narratives that drive human behaviour. Capitalism is such a meta-narrative. It can be observed in terms of Maslow's hierarchy of needs (1954), for example, that individuals can and do define the virtualisation and actualisation of the meaning and experience of every human need (biological and physical, safety, belongingness, esteem, and self-actualisation) in terms of money. Marx (1932) (in Ritzer 2000:57) captures this understanding of human beings in the following words:

That which is for me through the medium of *money* – that for which I can pay (i.e., which money can buy) – that am I, the possessor of the money. The extent of the power of money is the extent of my power. Money's properties are my properties and essential powers – the properties and powers of its possessor. Thus, what I *am* and *am capable* of is by no means determined by my individuality. I *am* ugly, but I can buy for myself the most *beautiful* of women. Therefore, I am not ugly, for the effect of *ugliness* – its deterrent power – is nullified by money. I, as an individual, am *lame*, but money furnishes me with twenty-four feet. Therefore I am not lame. I am bad, dishonest, unscrupulous, stupid; but money is honoured, and hence its possessor. Money is the supreme good; therefore its possessor is good. Money, besides, saves me the trouble of being dishonest: I am therefore presumed honest. I am *stupid*, but money is the *real mind* of all things and how then should its possessor be stupid? Besides, he can buy talented people for himself, and is he who has power over the talented not more talented than the talented? Do not I, who thanks to money am capable of *all* the human heart longs for, possess all human capacities? Does not money, therefore, transform all my incapacities into their contrary?

The reality of NDSOs raises the question whether the primary motive for the creation of these social systems is actually money, as Bone (2006) claims, or whether it is value rationality as Biggart (1989) suggests. The multiplexity of these social systems together with all other social systems leaves this question pending. Ultimately, the evidence shows that communication transforms the improbable and even impossible into the probable and possible. As Luhmann (1996:341) observes: "From a sociologist's point of view there may be many reasons to question the rationality of modern society; but there can be no doubts concerning its stupendous capacity to normalise improbabilities".

- *Consummatum est.*

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Appendix A


Direct Selling Association South Africa. 2009. Presentation at the 2009 Annual Award Ceremony by Richard Clarke (Chairman).



Direct Selling
The Local Industry Landscape

Richard Clarke
DSA Chairman


Building the Nation through Income Creation



Direct Selling: A Definition

The sale of a consumer product or service, in a person-to-person manner, away from a fixed retail location, where the company offers opportunities to an independent contractor sales force


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Multilevel Marketing/Network Marketing

A compensation system within direct selling, where a distributor/salesperson can earn money not only on their own personal sales, and not only on the sales of a person personally recruited by them, but also on sales of persons recruited by their personal recruits

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Analysis of the 2007 Sales Results of DSA Member Companies

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DSA South Africa Industry Survey

- Fourth time this survey has been conducted in South Africa
- Statistics for 43 member companies (2006 = 46 companies)
- DSA membership dependent on compliance


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Why this survey

- DSA objective is to build a positive public image – needs accurate industry information
- Need information for WFDSA
- SEIS (Socio Economic Impact Study)
- Government wants accurate industry information
- Members want accurate industry information
- Have added additional information this year

Building the Nation through Income Creation



Confidentiality of Information

- Only summary industry information presented
- Detailed company information is not released
- Company names not linked to information presented

Building the Nation through Income Creation



Highlights from 2007 Survey

- Strong organic growth from most members
- 2 new companies joined DSA
- 5 small companies closed down
- Continued growth in expanding into Africa

Building the Nation through Income Creation




Total Sales

	2007	2006	Growth
	R million	R million	
South Africa	4,541	3,941	15,2%
Africa	862	735	17,2%
Total Sales	5,403	4,676	15,5%

Total growth from 2005 to 2006 was 13,1%

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Number of Sales People

	2007	2006	Growth
Regular Users	683,000	521,000	31,0%
Sales People	251,000	208,000	20,6%
Total Sales People	934,000	729,000	28,1%

NB. 1) These figures should be used as a guide only .
 2) We intend to obtain more details on these figures during 2008.

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Analysis of Sales People

- There is a large turnover in sales people in every company due to the nature of the Industry.
- Not all sales people become involved in Direct Selling to build a business. In fact, only a small percentage of people join a DSA company for that reason.
- According to Neil Offen from the WFDSA, research has shown that there are 7 distinct reasons or motivations why people become involved with Direct Selling.
- An understanding of these 7 reasons explains why there is so much movement or "churn" within the sales forces in DSA Companies and why this should not be considered a reason for concern

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7 reasons why people join a Direct Selling Company

- 1) Wholesale / Discount buyers
- 2) Short Term sellers with specific objectives
- 3) Part Time sellers
- 4) Full Time, career orientated sellers and business builders
- 5) Social Reasons
- 6) Recognition
- 7) Need to share the benefits of the product and company

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Gender of Active Sales People

	2007	2006
Male	29%	31%
Female	71%	69%
Total	100%	100%

- Worldwide Women account for 80% of Sales People

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Race of Active Sales People

	2007	2006
Black	75%	81%
White	17%	12%
Indian/Asian	4%	3%
Coloured	4%	4%
Total	100%	100%

- This is the 2nd time that these figures have been requested
 - Pleasing to note that the DSA represents the demographics in SA much more closely than many other industries

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Rebate Earnings

	2007	2006	Growth
	R million	R million	
Amount earned in Rebates	2,203	1,830	20,3%

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Rebate Earnings

Active sales people approx 251,000

Up to R 1,000 pm	199,000
1,000 – 2,500 pm	34,000
2,500 – 5,000 pm	12,000
5,000 – 10,000 pm	4,000
10,000 – 25,000 pm	2,000
25,000 – 100,000 pm	300
Over 100,000 pm	15


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Permanent Staff

	2007	2006	Growth
▪ Southern Africa	3,447		
▪ Rest of Africa	286		
▪ TOTAL	3,733	3,466	7,7%

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Sales Statistics

	2007	2007 (%)	2006 (%)	No of Co's 2007 / 2006	
R' million					
300m plus	3,058	56,5%	51,9%	5	5
200-300m	755	14,0%	15,2%	3	3
100-200m	719	13,3%	17,3%	5	6
50-100m	514	9,5%	7,2%	7	5
10-50m	279	5,2%	7,2%	11	15
Under 10m	78	1,5%	1,2%	12	12
	5,403	100.0%	100.0%	43	46

Building the Nation through Income Creation



Major Statistical Highlights

- Sales growth at 15,5% faster than previous year (2006=13,1%)
- Top 5 companies have outperformed the industry growth in 2007 and grown at 26%.
- Top 13 companies (30% of DSA) account for 83,8% of all sales.
- Top 13 companies have retained market share of 84% (within 1%) since 2005.

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Product Mix

Product	2007(%)
Household Goods	26.99
Health & Wellness	24.29
Cosmetics	7.04
Financial Products	15.54
Personal Care	10.96
Other	4.41
Fragrance	7.33
Jewelry	3.44
Total	100.00%




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Product Mix Changes

Product	2007%	2006%	Growth
Health & Wellness	24.29	26.7	-10%
Personal Care	10.96	13.8	-20%
Household Goods	26.99	21.9	+23%
Financial Products	15.54	16.0	- 3%
Fragrance	7.33	7.4	- 1%
Jewelry	3.44	6.6	-48%
Cosmetics	7.04	4.0	+76%
Other	4.41	3.6	+22.5%
Total	100.0%	100.0%	

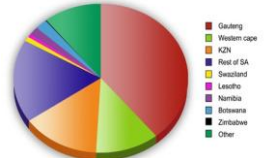
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Geographical Distribution

Southern Africa

Area	2007 (%)
Gauteng	32.6
Western Cape	10.0
Eastern Cape	6.7
KZN	13.9
Rest of SA	20.0
Swaziland	0.8
Lesotho	0.9
Namibia	2.0
Botswana	2.1
Zimbabwe	0.5
Other	10.5
Total	100%



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Geographical Distribution

Southern Africa

Area	2007	2006	Growth %
Gauteng	32.6	34.1	- 5%
Western Cape	10.0	11.0	-10%
Eastern Cape	6.7	N/A	N/A
KZN	13.9	12.8	+8,5%
Rest of SA	20.0	22.5 (incl E.Cape)	+18,8%
Swaziland	0.8	2.0	-60%
Lesotho	0.9	0.9	0
Namibia	2.0	2.4	-17%
Botswana	2.1	2.5	-16%
Zimbabwe	0.5	0.3	+67%
Other	10.5	11.5	- 8%
Total	100.0%	100.0%	

Building the Nation through Income Creation



DSA-UJ Africa Development Plan



Building the Nation through Income Creation



Neil Offen, Secretary General, WFDSA - 2007 visit



Tamuna Gabilaia, Executive Director, WFDSA - 2008 visit



Building the Nation through Income Creation



DSA-UJ Africa Development Plan (Universities Project)

- Now in it's 6th year at UJ (University of Johannesburg), 2nd year at DUT (Durban University of Technology) and 1st year at WSU (Walter Sisulu University, East London)
- A world-first – acknowledged by the WFDSA and being promoted globally
- This year, approx 1500 students
- Annual value of product sales R3.5m in 2007
- Last year approx R700,000 paid to students in rebates
- Over project duration (2003/2007) – approx 4650 students made approx R13.5 million in product sales and earned over R2.7 million in rebates from this project

Building the Nation through Income Creation



DSA-UJ Bursary Awards

DSA-UJ Bursary Awards Luncheon 2008

14 students were awarded part bursaries for the DSA-UJ Project and an additional 8 part bursaries were awarded to DSA-DUT students. Both functions took place in May




Building the Nation through Income Creation




Looking Ahead to the end of 2008

- Growth is expected from DSA Members despite tough economic situation worldwide
- Turnover should exceed R6 Billion by end 2008
- Sales into Africa expected to reach R1 Billion by end 2008
- Expect to reach the 1 million sales people mark in 2008

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Building the Nation through Income Creation



THE DIRECT SELLING ASSOCIATION OF SOUTH AFRICA

Building the Nation through Income Creation

Appendix B

GNLD Eagle Team: *Marketing Plan*. 2011. Power point presentation adapted by R Bolton & N Bolton.

GNLD Marketing Plan

LEARN HOW TO SHOW THE PLAN

RODNEY & NICKY BOLTON – EAGLE TEAM

Introduction

- Who is GNLD?
- How does it operate?
- What are the benefits?
- What support do you get?
- Any other questions?





DO YOU NEED EXTRA INCOME?

- Whatever spare time you have can be used to supplement your income.
- When you join us, you become part of a business called Global Neo-Life Diamite
- The business started in the USA in 1958 and arrived in South Africa in 1971
- GNLD is currently operating in 50 countries.



Introduction continued...

- GNLD offer three product categories
 - Health
 - Home care
 - Skin care
- These products have stood the test of time and is the only company who has an “Active Scientific Board”.
- GNLD has 32 world firsts in health & supplement products

Introduction continued...



- All products have a 100% money back guarantee.
- Our approach is to use natural products backed by science
- Therefore, all our products are 100% natural and will not cause harm to any child or animal should they consume it by accident
- All our products are bio-degradable and do not harm the environment

Introduction continued...

- Besides contributing to a healthier environment, each family can save a fortune on cleaning products each year.
- When you join us, the Eagle team provides you with all the help and support you may need to make your business a success.
- The Eagle Team can assist you to introduce members from any part of the company who can become part of your own team.

4 Simple Principles

- Use your own product (Saving, product support, credibility)
- Share the opportunity (introduce the business)
- Share the products (show people how you use the products)
- Training (informal discussions)



1987

EAGLE
TEAM
F.PATH

YOU

1958/71

GNLD
INT

55 C

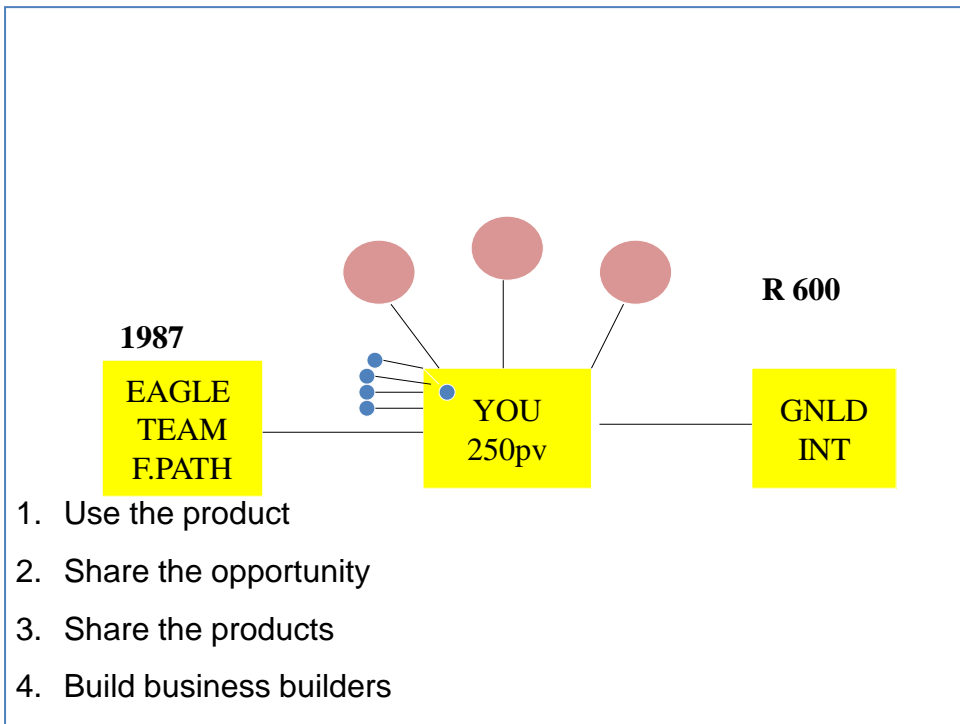
You are never alone



- We help you to find clients so that you can gain your independence and find our own eventually
- Every person who joins the company gets connected to your business and the more, the merrier!
- You always have the support you need.

So how does it work?

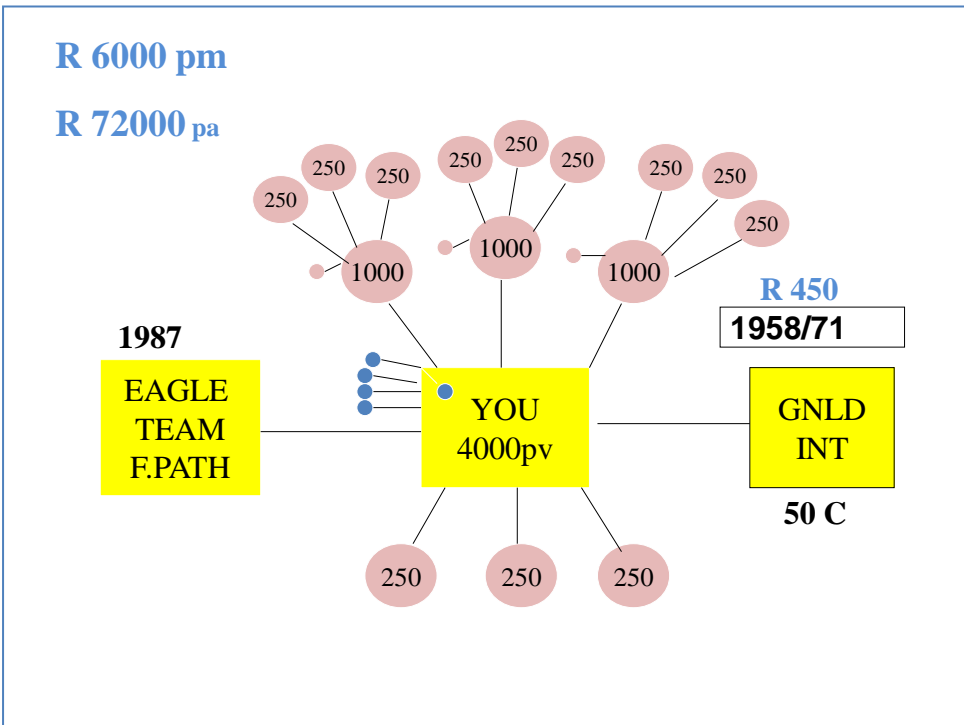
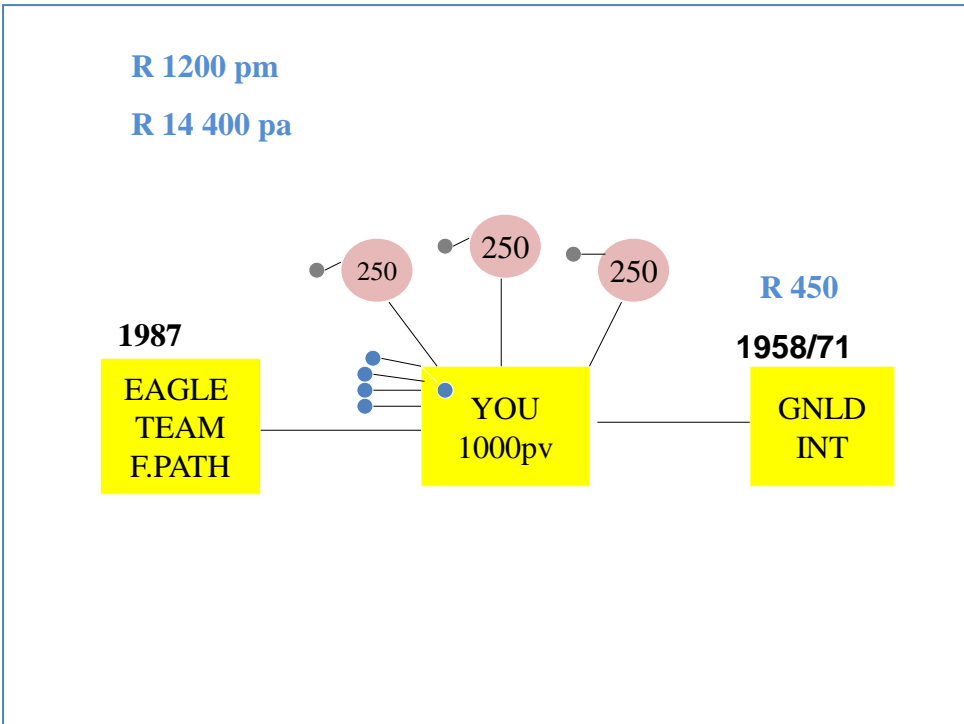
- The business works on a point system.
- 250 points in SA counts the same as 250 points in America
- If you sell 250 points' products, your profit is R360.00.
- That may not sound like much, but that's where it all begins.....



Implementation

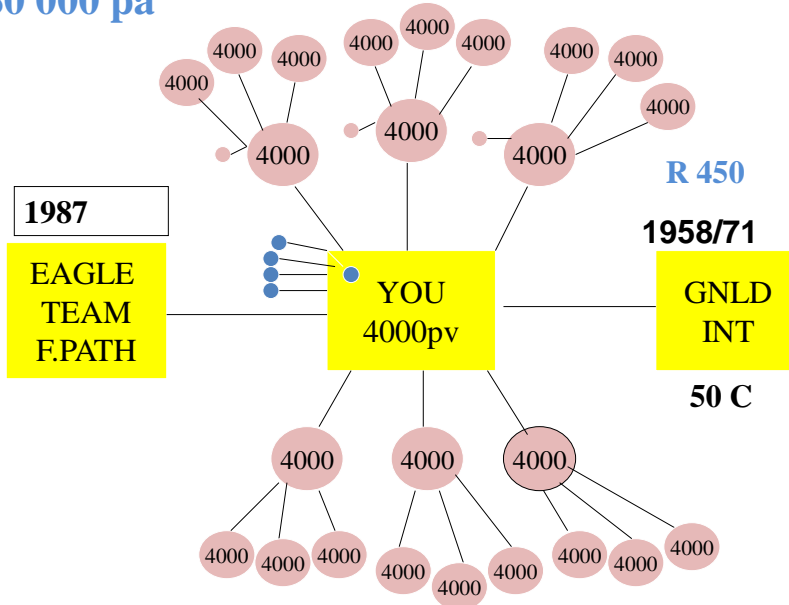


- If 3 people join by your introduction, and you all sell 250 points worth of products a month, you earn R940.00 per month.
- When each of them introduce 3 members who each sell 250 points, you earn R4 400.00 per month.
- Of course this number is not limited to 3 people, but the principle is quite easy to understand.



R 40 000 pm

R 480 000 pa



Longer Time Horizon



- Now you can consider firing your boss and doing your own thing....
- GNLD is no door-to-door selling scheme
- It cost you approximately R500.00 to join (about 25% of the money you save on the cleaning material in your household for the year any way.... ;-)

The Horizon broadens.....



- Let your team leader assist you. By following easy steps:
 - Make a list of all the people you know and we will help you to help them
 - Decide what your short-term & long-term objectives are
 - Join the team and start the journey towards your independence!

Enjoy a new challenge!

- So don't be a follower – become a leader!

