

OBSERVING COMMUNITY: AN INQUIRY INTO THE MEANING OF
COMMUNITY BASED ON LUHMANN'S GENERAL THEORY OF SOCIETY

A Thesis

Presented to

The Faculty of Graduate Studies

of

The University of Guelph

By

DAVID J. CONNELL

In partial fulfilment of requirements

for the degree of

Doctor of Philosophy

August, 2003

© David J. Connell, 2003

ABSTRACT

OBSERVING COMMUNITY: AN INQUIRY INTO THE MEANING OF COMMUNITY BASED ON LUHMANN'S GENERAL THEORY OF SOCIETY

David John Connell
University of Guelph, 2003

Advisor:
Prof. Anthony M. Fuller

This inquiry examines the meaning of community as a response to the disparity between the increasing use and rising importance of community and an apparent inability to explain this phenomenon. This disparity appears in the form of closure. Within rural studies, community theorists presume that community is too elusive to define and too complex to understand. Consequently, ambiguity is accepted as a normal condition of inquiry. When we ask about the meaning of community, this closure (i.e., community is ambiguous because it is ambiguous) becomes problematic: community theorists cannot see beyond the limitations of their approaches.

To 'see' the problem of closure this inquiry takes leave of the normal assumptions, methods, definitions, and approaches of rural studies. I adopt a 'post' normal foundation of inquiry by replacing a presupposition of an orderly existence with a presupposition of complexity. I work from the philosophical implications of complexity and reach forward to the possibility of community. The purpose of this research, therefore, is to address the limitations of the normal science of community theory within rural studies and, in so doing, propose a comprehensive foundation for a theory of community as a social system. I focus upon the dominant semantics of community

within rural studies and, in particular, upon the emerging semantics of community within the field of sustainable rural communities.

The framework used for this inquiry into the meaning of community is based on Niklas Luhmann's general theory of society, which is based on a post-humanist conception of the social as self-referential systems of communication. To reach forward to the possibility of community means to understand the semantics of community as an emergent, improbable form of social stability. Methodologically, a systems-theoretical approach observes the co-evolution of semantics and social structures. Accordingly, complexity is not an ontological constraint but an innovative point of departure for an inquiry into the meaning of community. We gain not only a clear (non-ambiguous) understanding of the residual, dominant, and emerging semantics of community, but also important insights as to why people are increasingly using community as a significant societal value.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my advisor Tony Fuller for seeing potential in me to contribute to the field of sustainable rural communities. As well, and to the other members of my Advisory Committee, Ellen Wall, Andrew McMurry, and Hans Bakker, thank you for your support, advice, and, above all, your trust to let me find my way through Luhmann toward the meaning of community. Diane Villemure was a wonderful friend throughout my studies, providing thoughtful reflections upon my work and encouraging me to push ahead, especially during my early explorations of Luhmann.

My work would not have advanced without contact with like-minded thinkers. To those who met in Montreal (Diane, Jean-Sebastien, Stephen, Achim), thank you for the opportunity to discuss, debate, and theorise. In particular, I would like to thank Diane Laflamme for extended conversations and for generously listening to my ideas, untangling the details, and providing invaluable comments. Thank you also to the Board Members of the Sociocybernetics group (ISA RC51) for providing a forum for social systems theorists. I extend special thanks to Klaus Dammann and Raf Vanderstraeten for their interest in my work. Likewise, I wish to thank members of the Post Normal Science discussion group at the University of Waterloo. Among my fellow students, I thank Ellen Woodley and Katia Marzall for reading drafts of my dissertation, and for their friendship.

During my time of study I benefitted from the opportunity to participate in, contribute to, and receive funding from several projects, including: Sustainable Rural Communities Program; Special Research Fund, Ontario Ministry of Agriculture and Food; Canadian Rural Revitalisation Foundation's New Rural Economy Project and Canada-Japan Project. In addition, I received funding from: University of Guelph; Mary Edmunds Williams Scholarship; and, Davison Memorial Travel Grant.

TABLE OF CONTENTS

1. Introduction.....	1
Purpose.....	6
Structure of dissertation	7
Assumptions and Limitations	10
2. Community theory	14
Community in rural studies.....	15
Approaches to the study of community	18
Community as a system	20
Limitations of approaches.....	22
Self-reference within community theory	25
<i>Problematique</i>	26
3. Social systems theory	30
Introduction.....	30
General systems theory	34
Sociocybernetics	37
Operative Constructivism	39
General theory of self-referential systems	49
Self-referential systems.....	50
Autopoiesis	56
Cybernetics of observation	59
Meaning	61
System formation (double contingency).....	65

Toward a post-humanist conception of social.....	69
General theory of society	72
Communication.....	73
Social structure and semantics	77
Media, Symbols, Codes, Programs	79
Differentiation of society	82
Systemness: semantics and social structures	88
4. Observations of community: self-description.....	92
Community as a self-description of modern society.....	93
Individual	95
Society.....	96
Community	97
Self-description of what society is not.....	98
Twentieth century semantics of community	101
Discussion: response to limitations of community theory	105
5. Observations of community: self-organisation	110
Self-organisation of semantics of community	111
Community development.....	114
Community economic development	115
Healthy Communities	117
Public Policy	119
Community as a social ideal of communitarianism.....	120
Function of the semantics of community	122

Positivity as a form of self-reference	127
Emerging semantics of sustainable rural communities.....	129
One's place in the world	137
Differentiation of intimate relations.....	140
Place.....	143
Summary	145
6. Observations of community: emergence.....	147
Operations.....	149
Coding of a community system	149
Programs of a community system.....	152
Shared practices	154
Intentional communities: an example	158
7. Discussion.....	164
Community theory re-visited	164
Nisbet's quest for community.....	166
Wilkinson's interactional field.....	168
Cohen's symbolic construction of community	169
Comparison of functional systems.....	172
Example: community economic development.....	174
Example: intentional communities	175
Future research.....	178
8. Conclusion	182
Community theory: reconcilable differences.....	184

Foundation for a theory of community	185
Contribution	188
Glossary	193
References.....	198
Appendix. Niklas Luhmann (1927-1998)	217

1. INTRODUCTION

Under a veil of ambiguity, the semantics of community has proliferated to describe almost any group of people at any scale, including ‘virtual communities’ and a ‘world community.’ At the same time, the semantics of community appears to have acquired greater social significance as a value of health, well-being, and sustainability, as illustrated in concepts like community development, healthy communities, community economic development, and sustainable communities. In its various uses, the semantics of community mediates between individuals and society, between local and global, between self-interests and common interests, between place and placelessness, and between inclusion and exclusion. Always there is an inherent goodness: local is good; common is good; place is good; and inclusion is good. However, simply invoking the good name of community as the way forward (or backward) is not sufficient. It is not sufficient because the meaning of community is deemed too elusive to define and too complex to understand.

This inquiry examines the meaning of community as a response to the disparity between the increasing use and rising importance of community and an apparent inability to explain this phenomenon. If one presumes that community is too elusive to define and too complex to understand then ambiguity is acceptable as a condition of inquiry. Consequently, when we examine the meaning of community, the ambiguity embedded in community theory becomes problematic.

Rather than deal with ambiguity, community theorists take community as a given object of social order situated between individuals and society. But, as will be examined in this dissertation, this ‘normal’ approach to understanding community is paradoxical. A paradox arises when individuals are seen as ontologically distinct from society but

society is made up of individuals. Situating community between individuals and society without reconciling this paradox leads to insoluble confusion between what community is and what community should be. Hence, there is ambiguity.

Community theorists cannot see that the paradoxical limitations of their approaches manifest themselves as the ambiguity they 'blindly' accept as a condition of inquiry. That is, community theorists cannot see what they cannot see: community is ambiguous because it is ambiguous. If an inquiry into the meaning of community is to 'see' the problem of ambiguity it must take leave of the normal science of community theory, namely, the paradigm of theoretical concepts approved within the field of rural studies, including assumptions, methods, definitions, and approaches of community theory. As one way of taking leave of the normal science of community theory, I adopt complexity as a foundation of inquiry.

The notion that community (and society) is complex is not new. What is new is how we think about complexity. Normally, complexity refers to a characteristic of community as an object, e.g., community is a complex social phenomenon. More radically, adopting complexity as a basal condition of inquiry replaces a normal presupposition of an orderly existence with a presupposition of complexity, i.e., a state in which it is no longer possible at any moment to relate every element with every other element. In effect, I turn assumptions of normal science of community theory into a productive research problem. This means, for example, that community is no longer presumed to be an object of social order situated between individuals and society. Rather than work within the bounds of normal community theory, I work from the philosophical implications of complexity and reach forward to the possibility of community.

The systems-theoretical framework used for this inquiry into the meaning of community is based on the general theory of society developed by the German sociologist Niklas Luhmann. Within this framework, I present a post-humanist conception of the social as self-referential systems of communication. Ontologically, communicative events, not action and not individual human beings, are the elemental units of society. As ways to connect one communicative event to another, semantics (shared meanings of words people use), social structures (accumulations of shared meanings), and systems (self-organised meaningful communications) emerge as improbable forms of social stability. The more complex the world turns out to be, the more improbable communication becomes. To reach forward to the possibility of community, therefore, means to understand the semantics of community as an emergent, improbable form of social stability.

What I see as Luhmann's 'post' normal conception of society is based on an unconventional constructivist epistemology. This epistemology can be distinguished as *operative* constructivism (Luhmann 2000a:244, 2000b:6)¹. The construction of the social world arises from *operations of observing* similarities and differences. The shift to an operative constructivist epistemology marks a difference between first-order observations that normatively and empirically describe social phenomena like community and second-order observations of social phenomena that recognise that a describer (i.e., the rural studies researcher) is implied in an observation. In other words, I am not seeking to understand community as an observed object, but seeking to understand the possibility of community that includes observers (including myself) in the domain of observation. An inquiry into the meaning of community, therefore, is directed by differences, not only by

¹ In Luhmann (2000b), he uses the term operational constructivism.

identities. Instead of asking questions about what community is and how it is studied, we ask about what distinctions are being used to distinguish community.

To understand the meaning of community is to understand how an emerging semantics of community deals with increasingly complex descriptions of modern society, of multiple views of the world, and of a growing sense of exclusion. Methodologically, this means observing various semantics of community, observing social structures that condition the connectivity of these semantics, and observing the possibility of a community system as a co-evolution of the semantics and social structures of modern society. Within this inquiry I focus upon the dominant semantics of community within rural studies and, in particular, upon the emerging semantics of community within the field of sustainable rural communities. The latter includes ecological communities, sustainable communities, and intentional communities. The discussion centres upon the 'systemness' of community: an evolving capacity of the semantics of community to organise social structures. This entails examining processes of self-organisation (e.g., symbolic generalisation, coding, programming) within the emerging semantics of community as well as the pre-conditions for a community system to emerge.

Determining whether community is or is not a system is not a critical outcome of this inquiry. What is important is being able to 'see' (to observe) what the normal science of community theory cannot see. The ambiguity of community is neither an empirical nor a theoretical constraint within a 'post' normal systems-theoretical framework. I account for the conceptual ambiguity of community in two ways. First, the various approaches to the study of community are attributed to different observing systems. There is a plurality of community concepts because there is a plurality of

observing systems. Second, the ability of community to defy definition is because, in operative constructivism, understanding the meaning of community is no longer an issue of essence or of the consensus of all observers. Instead, the decision of what counts as meaningful is left to the system itself.

Complexity, as a foundation of inquiry, extends the range of possibilities for observing community and, along the way, presents a foundation for understanding why community has emerged as a social value of health, well-being, and sustainability within an increasingly complex society. Namely, I observe how the semantics of community co-evolves with an increasingly complex society. During the advent of modern society, as previously privileged descriptions of social order were displaced, the semantics of community emerged to describe what was missing in modern society. By the late-twentieth century, the semantics of healthy communities, community development, and community economic development, represent semantic forms that have been tested and accepted. The more they are used, the more connective capacity they acquire. These uses not only uphold community as a social value but, beyond this, the semantics also conveys rules for the communication to be accepted: community is valued because it is inclusive; community is valued because it is local; community is valued because it is natural. Yet, as long as the semantics of community refers to both what is missing in society and to what society should be, the relationship between community and not-community becomes increasingly paradoxical, which is to say that it becomes increasingly difficult to know to what community refers.

I then observe how stability emerges in the process of establishing a difference between community and not-community. This is evident within the semantics of

sustainable rural communities as a positive form of self-description, as descriptions of what society is. The combination of political, spiritual, and ecological arguments within this semantics exceeds a common understanding of community, while the semantics of sustainable agriculture adds a particularly local and rural dimension to these observations. The notion of place-in-the-world, as a form of interconnectedness, rootedness, and intimate relations, is an important aspect of the emerging semantics of community. It is the possibility of describing a community as one's place in this world, as a close, intimate relation with people and place, that both distinguishes community as a system and, at the same time, constitutes the possibility of a community system.

Overall, the semantics of community can be considered as part of society's response to coping with increased complexity and as a social response to the separation of people from people and people from place. The function of the semantics of community can be understood as making visible the possibility of a common world in a society whose differentiation makes this highly improbable. As such, the semantics of community presents self-descriptions of social order in such a way that people can share a common, intimate experience of modern society from within modern society.

Purpose

The purpose of this research is to:

- a. address the limitations of the normal science of community theory within rural studies; and, in so doing,
- b. propose a comprehensive foundation for a theory of community as a social system.

Structure of dissertation

This dissertation focusses upon theories of community and of systems. Bringing these two sets of theories together is a challenge. First, the academic audiences interested in community and in systems are, for the most part, separate. This difficulty of overcoming this separation is compounded because both systems theorists and community theorists hold common assumptions about the other. Furthermore, I challenge both sets of assumptions. Community theorists, for example, have conventional understandings of systems, such as concepts related to open systems and to structure-functionalism. While such concepts of systems retain some relevance, systems theory has re-constructed itself several times over since the mid-twentieth century. There is perhaps the greater challenge of advancing system theorists' conceptions of community beyond their everyday experiences. Very little discussion of community theory enters the systems theory debate. Thus, presenting systems theory and community theory is doubly difficult. And there still remains the task of integrating community theory and systems theory. In this regard, a particular problem arises because theories of community as a system are not well developed (Connell 2001). In an attempt to deal with these various challenges, the structure of the dissertation focusses upon community theory and systems theory separately before bringing the two sets of theories together.

Community theory is reviewed in Chapter 2. The aim is to provide a broad account of the state of community theory within rural studies. Rather than re-constructing or de-constructing the myriad of definitions, concepts, and approaches used in the study of community, the review focusses upon the relevance of community to rural studies and key assumptions. This reveals that the meaning of community is ambiguous. In an effort to

penetrate this conceptual ambiguity, I focus upon the various approaches used to study community. Several limitations of community theory are identified, which in turn, set forth the *problematique* of the dissertation: how to circumvent the limitations of the normal science of community theory. For this I embrace complexity as a foundation for a ‘post’ normal science.

Presuming complexity as a foundation of inquiry requires an adequate theoretical framework. The framework developed in this dissertation, as set out in Chapter 3, is based on the work of Niklas Luhmann. (A brief biography of Luhmann is included in the Appendix.) The framework consists of three components: epistemology, general theory of self-referential systems, and general theory of society. Each component is comprised of different theories and concepts, which correspond with an overall schematic of the systems-theoretical framework of this dissertation, as indicated in Table 1. Generally,

Table 1. Overview of Theoretical Framework

Component	Theories and concepts	Schematic of theoretical framework
Epistemology	Self-reference Complexity Selectivity Unity of difference Laws of form	Operative constructivism
General theory of self-referential systems	System-environment Self-reference Autopoiesis Cybernetics Meaning	<pre> graph TD Systems[Systems] --- Organisms[Organisms] Systems --- Social[Social Systems] Systems --- Psychic[Psychic Systems] </pre>
General theory of society	Types of social systems	<pre> graph TD Social[Social Systems] --- Interactions[Interactions] Social --- Organisations[Organisations] Social --- Societies[Societies] </pre>
	Differentiation of society Communication theory	<pre> graph TD Societies[Societies] --- Segmented[Segmented] Societies --- Stratified[Stratified] Societies --- Functional[Functional] </pre>

Luhmann's work draws upon theories from many areas of study including phenomenology, mathematics, biology, cybernetics, cognition, and sociology.

The discussion of social systems starts by reviewing three areas of systems theory: closed, open, and autopoietic (self-referential) systems. This overview helps distinguish the concept of self-referential systems from established understandings of systems. The aim is to establish a distinct epistemology of systems based on operative constructivism. The systems-theoretical framework, which is set out in the remainder of the chapter, includes the concepts of autopoiesis and cybernetics, as well as an account of meaning as the medium, or operational basis, of social systems (and psychic systems). The final component of the research framework, a theory of communication, is the cornerstone of Luhmann's general theory of society.

I use the systems-theoretical framework for observing the semantics of community. These observations are divided into three parts. The first part, Chapter 4, represents an initial level of inquiry into the meaning of community. The focus is upon community as a self-description of modern society using notions of residual, dominant, and emerging semantics of community. This includes a historico-cultural analysis, as well as a review of the semantics of community development, community economic development, and other areas. I focus upon how the semantics of community is used to describe society and its social relations. This first level of analysis concludes by discussing the insights gained from using a systems-theoretical approach in relation to the limitations of the normal science of community theory identified in Chapter 2.

Chapter 5 marks a significant point within the dissertation. In working towards a theory of community as a self-referential social system, the reader is invited to explore

what might be considered more innovative and more technical applications of the systems-theoretical framework. The discussion centres upon the ‘systemness’ of community: an evolving capacity of the semantics of community to organise its own self-reference. This discussion provides new insights for understanding the emerging semantics of community in the twentieth century. I then present an argument in support of the emergence of a community system in Chapter 6, using intentional communities as an example.

The remaining chapters are as follows. In Chapter 7, I discuss implications for existing theories of community, compare a community system to other systems, and reflect upon opportunities for and obstacles to future research. In the Conclusion (Chapter 8), I summarise the main argument, reflect upon the significance of the research, and discuss avenues of future inquiry. The dissertation also includes a Glossary and References. Finally, as an appendix, I provide a brief biography of Niklas Luhmann.

Assumptions and Limitations

This dissertation, by its possibility as a form of communication, is undertaken within science. Philosophy (e.g., epistemology, ontology) makes explicit the presumed criteria for scientific truth; it is an account of scientific validity. I acknowledge, however, that the criteria of scientific truth are contingent. Science is a form of self-referential communication: science determines what is scientifically valid. Transparency, therefore, is a condition of validity; it is an act of stating assumptions so others can understand and verify these assumptions. However, given the self-referential nature of science, my assumptions must also be taken as contingent – they could have been otherwise.

This research is carried out within Rural Studies and, more specifically, within the field of Sustainable Rural Communities. The concept of community arises in many contexts and for different reasons. It is thought that community theory began with the publication of Tönnies's *Gemeinschaft und Gesellschaft* in 1887. While this dissertation reviews theories since Tönnies, the primary focus is upon the emerging semantics of community in the current literature (*circa* 1980-2003). Within this contemporary time frame I observe a shift in the semantics of community between conventional uses within the fields of community development and community economic development, as well as within public policy, to the emerging semantics of sustainable rural communities.

Community is central to current issues concerning rurality and sustainability, as well as to related concepts of rural revitalisation and rural restructuring. These issues link practice and theory and demand 'interdisciplinary' research. This is consistent with the interdisciplinary focus of the Rural Studies program in which the dissertation is carried out. The concept of interdisciplinary studies is the subject of much on-going debate at the University of Guelph and elsewhere. Within the Rural Studies program, interdisciplinarity remains an open concept without a long history² to draw upon. Whether described as 'trans-', 'multi-', or 'inter-' disciplinary study, I contend, the underlying premise is that a doctoral dissertation within Rural Studies (and here I am referring to a study carried out by a single student to fulfill the requirements of the doctoral program at the University of Guelph) is *not disciplinary*. As such, I do not purport to meet the disciplinary requirements set forth by disciplinary programs. Instead, this dissertation draws upon theories and concepts from several disciplines (e.g., biology, cognition, sociology, community psychology, human geography, mathematics,

² The Rural Studies program started in 1995.

cybernetics, phenomenology). The proposed theory of community is founded upon the synthesis of what might be viewed as disparate theories and concepts. A possible limitation of the dissertation is that it will not meet what readers may demand as a *disciplinary* account of aspects related to their own fields. While such elaborations might enrich aspects of this inquiry, such accounts are beyond the scope of this dissertation. The pursuit of interdisciplinary studies undertaken in this dissertation is consistent with adopting a theoretical framework that lies outside the scope of the normal science of community theory.

The position adopted in this dissertation is that humans are social because they communicate, verbally and non-verbally. Communication, however, is theorised as highly improbable. While it may be possible to extend the ideas discussed in this dissertation to the non-human world, the following discussion will be limited to discussions about humans. This dissertation is also limited to generally accepted forms of verbal (e.g., talking) and non-verbal (e.g., gestures such as waving one's hand) communication to the exclusion of other possibilities (e.g., energetic, telepathy).

Two aspects of Luhmann's work present insurmountable limitations in relation to the bounds of this dissertation. First, the majority of Luhmann's work is published in German. The primary reference for English readers is Luhmann's *Social Systems*, originally published in German in 1984 and published (belatedly) in English in 1995. The ideas presented in *Social Systems* are supported by a few other books published in English. Luhmann's 1,200-page *magnum opus*, *Die Gesellschaft der Gesellschaft* (1997) is unlikely to be translated into English within the next few years. Nevertheless, the works available in English substantially represent Luhmann's theoretical development of

self-referential systems and provides a sufficient basis for a study of community as a self-referential system (Dammann 2002, personal communication). Additionally, the number of works available in English is increasing each year. These works represent the continued development of Luhmann's ideas. In addition to using *Social Systems* as a resource for developing a theory of community as a social system, I draw important ideas from *Art as a Social System* (2000), published in German in 1995, and *Love as Passion* (1986), published in German in 1982.

The second limitation of Luhmann's work is its breadth. Luhmann was a prolific writer whose theories draw from a wide range of literatures. It is beyond the scope of this dissertation to provide a full account of Luhmann's theories, even when restricted to the works available in English. The framework developed for this dissertation focusses primarily upon the theories of forms (the mathematics of Spencer Brown), autopoiesis (the biology of Maturana and Varela), cybernetics (the cognition of von Foerster), and meaning (the phenomenology of Husserl).

2. COMMUNITY THEORY

The aim of this chapter is to provide a broad account of the state of community theory within rural studies. Rather than re-constructing or de-constructing the myriad of definitions, concepts, and approaches used in the study of community, the review focusses upon the importance and relevance of community. What dominates the literature is a general acceptance that the meaning of community is ambiguous. In an effort to penetrate the conceptual ambiguity of community, I will focus upon the various approaches used to study community in order to identify key assumptions. This reveals that community is taken as a given object of social order situated between individuals and society. This assumption constrains the ontological possibilities of how community might be conceived. Consequently, many approaches used for the study of community merely provide surface descriptions of human settlements and interactions.

The way community is studied is also problematic. Theory, concepts, approaches, and object of study are inseparable, leading to greater diversity and thus contributing to a greater sense of ambiguity. These limitations of community theory are characterised as typical of normal science within rural studies. By 'normal science,' I mean areas of study and theory that grow steadily and cautiously, cultivated within a paradigm of theoretical concepts approved by scientists in the pertinent field, including methods and models (Kuhn 1970). Addressing the limitation of normal science gives rise to the *problematique* of the dissertation. Namely, I must find a way to circumvent the normal science of community theory in order to advance an inquiry into the meaning of community.

Community in rural studies

When we observe the semantics of community over the past century we see that community has been lost, found, and saved amid waves of optimism and pessimism that have accompanied modernisation, urbanisation, and suburbanisation. By the late twentieth century, ensuing debates focus on concepts such as community development, community economic development, healthy communities, and community capacity building. Presumably, such semantics are meaningful because community is a fundamental aspect of society. But when we ask why community is meaningful, whether lost, found, or otherwise, we are struck by the discrepancy between the growing attention to and use of community as a concept and observations of its chronic ambiguity.

Evidence indicating the importance of community to rural studies is abundant in the literature. It is argued that community is a part of human nature (Cooley 1963:52), a deep longing (Bernard 1973:107), and a compelling urge for sociality (Freie 1998:21). It is also argued that community is the “most fundamental and far-reaching” social variable (Nisbet 1966:47; also Crow and Allan 1994:xiii) because it is the most direct, tangible experience of association (König 1968:4). These statements, which represent only a sample from the literature, indicate that community is an important subject of social inquiry in rural studies.

The importance of community is often presumed to be universal. This, too, is abundant in the literature. For instance, “the almost universal scope of community” reflects a basic form of social life (König 1968:3). “[T]he cultural experience of community as a bounded symbolic whole is something virtually universal in both non-industrial and industrial societies” (Hamilton 1985:9). “In all parts of the world, in all of

human history, there are and have been little communities” (Redfield 1960:1).

Associating community with “the brute facts of social life” (Minar and Greer 1969:3)

also supports the universality of the concept of community.

Presumptions of importance and universality, however, are confounded by on-going debate about the relevance of community to modern society. Nisbet (1964) argues that community is lost at the expense of rising individualism and rationalism of modern society. Stein (1960) contends that modern society “eclipsed” community in the second half of the twentieth century as a result of the changing social structures of suburbia. On the other hand, it is argued that community continues to be an important factor in social well-being as “an arena for immediate expression of the fundamental human disposition toward association” (Wilkinson 1979:8) and as “the smallest form of society and the most comprehensive social unit one can experience firsthand” (Wilkinson 1986:3). The community “arena” can be expressed in pragmatic terms.

People still live next door to others, they eat, sleep, love, hate, avoid, or seek one another in a given locale. Whether or not they have much to do with their neighbours, they use the same grocery store or supermarket, attend the same movie houses, and patronise the same beauty parlours or barber shops. Owners and renters, they depend on the same community services such as, humble as they may be, garbage collection, street cleaning, and police protection. However emancipated from spatial barriers and however independent of locale the elite may be, it is still on the community scene that for most human beings interaction takes place (Bernard 1973:187).

Thus, as Minar and Greer (1969) argue, a mix of empirical and normative descriptions obscures the relevance of community in modern society.

The confusion between what is and what researchers think community should be contributes to ambiguity. Once again, there are many examples from the literature to illustrate the point. “The idea of the ... community is deceptively simple, so long as one does not ask for a rigid definition“ (Warren 1963:1). “The very term itself is used in many different meanings, and is often anything but clear and definite” (König 1968:1).

“The concept of community has been the concern of sociologists for more than 200 years, yet a satisfactory definition of it in sociological terms appears as remote as ever” (Bell and Newby 1972:21). “In spite of constant usage, community remains an untidy, confusing, and difficult term” (Scherer 1972:1). “‘Community’ is crucial to our social and political understanding but, at the same time, it is an elusive concept defying attempts at clear cut analysis” (Plant 1974:1). “The concept of community has been one of the most compelling and attractive themes in modern social science, and at the same time one of the most elusive to define” (Hamilton 1985:7). “The community is elusive as a scientific concept, and it is elusive as a social phenomenon” (Wilkinson 1986:1). Hillery (1955), Effrat (1974), Willis (1977), Dasgupta (1996), Freie (1998), and Bauman (2001) make similar statements about the conceptual ambiguity of community.

The above quotations indicate not only a lack of agreement about concepts of community; they indicate that the ambiguity of community is *accepted*. Furthermore, this willingness to accept ambiguity as a condition of community theory, which is often expressed within the first few paragraphs of a manuscript if not the first sentence, qualifies what one can expect to know about community. Such statements also provide a convenient excuse to curtail discussion about the meaning of community: “We all know it’s ambiguous, so let’s pick a definition and move on.”

Past debates about the meaning of community have focussed upon definitions. Hillery (1955), for example, analyses ninety-four definitions of community using nineteen characteristics to account for conceptual diversity. Hillery concludes that community possesses three key attributes: locality, common ties, and interaction. “There is one element, however, which can be found in all of the concepts... all of the definitions

deal with people. Beyond this common basis there is no agreement” (Hillery 1955:12). Willis (1977) comes to similar conclusions. In the extremes, one can argue either that the many definitions of community render the term meaningless or when all definitions are viewed collectively they provide “a more complete definition” (Dasgupta 1996:82-3).

Approaches to the study of community

An alternative to searching for the meaning of community through a multitude of definitions is to observe approaches used for the study of community. The intent of focussing upon approaches is to step back from descriptions of community (i.e., concepts and definitions) to reveal assumptions that constrain and direct these descriptions. In this way I am no longer interested in the observations of community, but in observing the observers who make the observations. As will be discussed in more detail in the next chapter, the difference between observations and observing the observer is a difference between first- and second-order observations, respectively. First-order observations normatively and empirically describe social phenomena like community; second-order observations of social phenomena recognise that a describer is implied in an observation.

There are many approaches to the study of community, as indicated by the following examples. Stein (1960) composed the study of community as three broad fields of interest characterised by the disciplines of community researchers: anthropological, psychoanalytic, and sociological. Bell and Newby (1972) distinguish among different studies of community, e.g., the Chicago school, Yankee City, the southern Italian studies. Poplin (1972) classified theories of community as human ecology, constructed types (e.g., Tönnies’ *Gemeinschaft* and *Gesellschaft*; Redfield’s

folk-urban continuum), social system/functionality, action and leadership, and change and problems. Hiskes (1982) identified four models of community: organic, public interest, private interest, and respect. These approaches illustrate a diverse range of approaches to the study of community. Generally, however, the various categories of approaches refer to the same literature.

The aim here is neither to provide a broad survey of these community studies nor to recount the findings of these studies and the methods used. Instead, the aim is to distinguish underlying distinctions that guide community studies and identify community as a basic form of social organisation. My interest, following Wilkinson, is “to pare down the concept to its bare bones to see how much excess baggage can be shed without missing the essence of community and to get rid of the provocative ideological and normative undercurrents that give community a bad name” (Wilkinson 1990:153).

A review of approaches to the study of community indicates several distinctions that function as guiding differences. The ecological perspective, based upon biological processes and spatial consequences of social organisation, emphasises intimate and necessary interrelations between humans and their habitat. The ethnographic approach is ‘holistic’ or ‘institutional,’ with a focus upon a total pattern of living as a local society. The typological approach classifies forms of social organisation based upon processes of social change. The interactional field approach focusses upon the actions of individuals as opposed to a functionally integrated whole. Finally, the symbolic construction approach is guided by the interaction of meanings shared via symbols, emphasising the continuous creation and recreation of culture and the capacity culture has to attach meaning to social behaviour.

Systems approaches focus upon community as either patterned arrangements of social units in a geographic area or as bundles of social interactions. As this inquiry is based on systems theories, I will elaborate upon the works of Sanders and Warren who represent two dominant approaches to the study of community as a system.

Community as a system

Community systems, according to Sanders (1966), fit along a continuum between the socialised individual (person or community member) and society. “The community serves as a mediating mechanism between the individual and the society by relating the individual to the larger society” (Dasgupta 1996:43). The socialised individual is the minimal structural unit of the community system; society is the most complex social unit. Where community fits, Sanders argues, is a matter of empirical research.

For Sanders, society is comprised of social relationships that are patterned into groups and larger social systems, whereas community is the patterned, systematic arrangement of social units in a geographic area. A community is distinguished as a territorially organised system co-extensive with a settlement pattern and exhibiting particular system properties: locality; institutional concreteness; and mediating social mechanism between individual and society. As such, a community system, as distinguished from society, has an intense focus on locality and strives toward a common basis for meeting common needs.

The aim of Sanders’ social systems approach is to define boundaries, components, and operations of the system in relation to the locality identified. Sanders details the components of a community system and how to study not only the parts but also how the

parts fit together. The community system, in his view, must maintain equilibrium among its components for the sake of solidarity and integration.

Warren's social system approach to community is premised upon the "inescapable fact that people's clustering together in space has important influences on their daily activities" (Warren 1963:9). Community is defined as "that combination of social units and systems which perform the major social functions having locality relevance" (Warren 1963:9). Thus, Warren and Sanders agree about the relevance of locality.

In Warren's systems terms, community is distinguished from its environment as identifiable "bundles" of social interactions. These interactions provide "locality-relevant functions for people living in the same geographic area" (Warren 1963:154). That is, community is distinguished to the extent that schools, churches, employment opportunities, shopping facilities, local government, and local newspapers serve substantially the same group of people in substantially the same geographic area.

Warren eschews the notion that community has "a limited geographic area with relatively definite ascertainable boundaries" (Warren 1963:3). Instead, although geographic boundaries are particularly relevant, they are often vague and difficult to define. Psychological boundaries also exist and are maintained, if only informally. Warren's social systems approach concerns matters of degree to which communities manifest systematic characteristics, rather than determining if community is or is not a system.

Warren's community theory is most noted for its broader account of "the great transformation," the process of changing social relations resulting in increased bureaucratisation, growth of metropolitan areas, etc. Warren uses the terms vertical and horizontal patterns to describe the effects of this process. Vertical patterns are "the

structural and functional relation of its various social units and subsystems to extracommunity systems” (Warren 1963:161). The term “vertical” refers to different hierarchical structures of authority and power. Horizontal patterns are “the structural and functional relations of its various social units and subsystems to each other” (Warren 1963:162). The term “horizontal” refers to which units (individuals and groups) and subsystems of the community relate to each other at the same hierarchical level. Warren uses this analytical framework to test whether or not there is an increasing or decreasing orientation of local community units toward extra-community (external) systems of which they are a part. The aim in this regard is to assess community cohesion and autonomy.

By this brief account of the community system approaches of Sanders and Warren, it is evident that both theorists remain within the normal science approaches of community theory. As will be discussed in the next chapter, both theories of community are also typical of early thinking about open systems.

Limitations of approaches

Although there are overlaps among various approaches to the study of community, each presents a particular understanding of community as a distinct form of social organisation. Such claims that community is a distinct form of social organisation, however, leave open a question about how community is possible as a distinct form. That is, it is one thing to describe how community is distinct but it is another to explain why it is distinct. The implication of not addressing the possibility of community means that these normal science approaches to community studies are limited to (first-order) descriptions of surface structures that characterise human settlements and interactions (Cohen 1985). Namely, the

various approaches focus upon structures, dynamics, and elements that include such things as typologies, class, power, conflict, patterns, networks, and institutions.

Additional insight to the assumptions that direct community theory is gained by looking at how community is situated within a larger framework of social organisation. Most often, general theories of society are not explicitly laid out within the community theory literature. What can be gleaned from the literature are statements about the ontological foundations of approaches used for the study of community, as illustrated by the following quotations. “Virtually all of the research on community in rural sociology, as well as sociology in general, takes a view of community...that focusses on the individual as the fundamental or given entity” (England 2002:1). “Community is the intermediate stage between individuals and families on the one hand and society on the other. It is community that mediates between the personal closeness of the family and the obligations of society” (Melnyk 1985:135). Community is seen “...as the setting and mechanism of empirical contact between the individual and society” (Wilkinson 1991:3). “[A] man first comes into contact with all social relationships, which extend beyond the narrow limits of the family, in the community.... One might say that community is that point at which society as a whole, as a highly complex phenomenon, is directly tangible, whereas without exception all other forms of society rapidly become abstract and are never so directly experienced as in the community” (König 1968:4). Ontologically, community is taken as a given form of social order, either as a microcosm of society or as a collection of individuals. A distinction between individuals and society underpins these views, wherein individuals are seen as separate from society. Community is then positioned between the two. But, because community is taken as a given, the possibility

of community is not questioned. As such, these ontological foundations can be observed as limitations of normal science approaches. Specifically, distinguishing among individuals, community, and society provides a limited foundation of guiding differences.

The interactional approach attempts to take leave of the individual-society difference by distinguishing between a field of interaction and an individual. "...[A]s Mead and many others have insisted, we cannot get to the social by way of the 'individual' by simple addition or aggregation. Rather we must begin with an interactional field of interdependent organisms in an environment, and trace from *it* what we mean by the human 'individual' and the social organisation of such 'individuals'" (Buckley 1967:100). An understanding of a "community field" (Wilkinson 1970, 1991) premised upon interaction does not take full leave of the individual-society distinction, however. As Wilkinson argues, the community field is distinct from community. While a community field may be distinguished from an individual, community remains the "setting and mechanism of empirical contact between individual and society" (Wilkinson 1991:3). The distinctions used within the interactional field approach can be summarised as follows:

Individuals	-	community	-	community	-	society
(given)		or local society (given; empirical manifestation of society as defined by three elements)		field (emergent interaction)		(abstraction)

Within rural studies generally, the individual-community-society distinction is a limitation of normal science approaches used for the study of community. To consider ontological possibilities for community outside of the normal ontological schema of

individual-community-society one must be willing to accept that the schema is a philosophical construct (Van Den Abbeele 1991; Knodt 1995) and the possibility of this philosophical construct is predicated upon another philosophical construct, namely, the distinction between subject and object. Although I will return to this notion of the subject as a philosophical construct in Chapter 3, a detailed de-construction of the theory of the subject, the province of twentieth-century post-structuralism (Van Den Abbeele 1991), lies outside the scope of this dissertation. Here I note that a post-structuralist view stands in contrast to and highlights the prevailing norms and assumptions of community theory within rural studies.

Self-reference within community theory

Thus far, a review of community theory identifies two primary concerns about limitations of normal science approaches. First, community theory is founded upon first-order descriptions of human settlements and interactions. Second, community is taken as a given object of social order situated between individuals and society, thus constraining the ontological possibilities of how community might be conceived. A third limitation of normal science approaches is also problematic. Theory, definitions, and approaches used for the study of community are interdependent, i.e., they refer to themselves in circular arguments either explicitly or implicitly. As such, the way community is studied is contingent upon how one understands the study of community, leading to greater diversity of possible meanings and contributing to a greater sense of ambiguity.

Dasgupta acknowledges that the self-referential nature of community studies leads to different research approaches. “A major reason for the diversity among

sociologists in defining the community is that they differ amongst themselves in their approach to the study of the community. The way each group of sociologists views the community is reflected in the way they define it” (Dasgupta 1996:7). Likewise, “the thing-in-itself, the community as object, is imperfectly separated, in concept and in practice, from the use of it, as field or sample, where the community is that within which work is done, observations made, relationships traced out” (Arensberg and Kimball 1965:30). Furthermore, community researchers seek to observe a segment of an elusive reality from their own perspective (Vidich et al 1964), however such observations are never merely descriptions: “Description is always based upon some conceptions: the vaguer these are, the vaguer are the descriptions likely to be and the less useful for hypothesis formation” (Stacey 1969:137). Consequently, there is a profound tendency to confuse whatever is studied with the methods of study (Mills 1959). And when Stein (1960:319) includes the researcher in this confusion, he finds that the observer (researcher) and observations of community are “inseparably wedded,” each influencing the other. Thus, the self-reference of theory, definitions, approaches, and the object of study also limits how community is understood within rural studies.

Problematique

The limitations of normal science approaches infer that community theory is not only founded upon conceptual ambiguity but also conceals ambiguity within the inseparability of theory and its object of study. More critically, when ambiguity is accepted as a foundational assumption, the self-reference of community theory closes debate about the meaning of community. An inquiry into the meaning of community premised upon the

normal science of community theory will most likely produce normal science solutions. Any attempt to clarify the meaning of community is unlikely to break free of self-imposed and self-reinforcing limitations of first-order observations. It is difficult if not impossible, therefore, to clarify the meaning of community if conceptual ambiguity is accepted as a foundational assumption. Community is ambiguous because it is ambiguous. Such can be the closed nature of the normal science of community theory.

To suggest that community theory is founded upon ambiguity may be accurate, but somewhat misleading. Ambiguity is merely a consequence of first-order observations of community. At this level, equivocation and undecidables are involved. At a second-order level of observation, which brings epistemological issues to bear, there is no ambiguity at all, but rather a certain kind of blindness. From a second-order perspective, we can observe that the inability of community theorists to see the limitations of their own science manifests itself as ambiguity. For example, as identified above, the normal science of community theory is founded primarily upon a distinction between individuals and society. If one starts with an individual-society schema as a foundation of social theory then one's theory of community will be framed by the schema's ontological constraints. Furthermore, normal science approaches take community as a universal form of orderly existence between individuals and society, as either a cohesive collection of individuals or as a logical microcosm of society, regardless of scale. Consequently, social scientists study everything from 'personal communities' to 'virtual communities' to a 'world community.'

Sorting out the inseparability of methods from value judgements, of theory from object, of description from reality, and of the observed from the observer, is a matter of

sorting out the limitations of normal science when dealing with self-reference. But to get to the problem of self-reference, an inquiry into the meaning of community must first break from the closure of the normal science of community theory. As Bernard (1973) argues, normal science approaches are in a state of crisis because they are embedded in the dominant ideologies within which they were developed: as knowledge of social issues advances, the closed approaches of studying community become less relevant. Bernard argues that as various approaches began to show their limitations, ever more anomalies began to appear. What makes Bernard's critique particularly relevant is that she expressed these concerns before the arrival of 'globalisation,' 'sustainability' – and the Internet.

To consider "new paradigms" (Bernard 1973) for an inquiry into the meaning of community one must be willing to pursue possibilities outside the scope of normal science. What is needed, in other words, is a 'post' normal science that turns the limitations of normal science approaches into a productive research problem. The term 'post' normal science is adopted for several reasons. It is a direct response to Bernard's call for new paradigms that reach beyond "normal" approaches and to Kuhn's characterisation of "normal" science as a cautious, analytic approach pre-occupied with understanding social order that leaves little if any room for complex social issues (Kuhn 1970). "Post Normal Science" is a term coined by Funtowicz and Ravetz (1992, 1993, 1999; see also Kay et al 1999) to acknowledge the foundational uncertainty of complexity that "poses new, deep challenges to the ways we define problems, identify solutions, and implement actions" (Gallopín et al 2001:221). In this context of 'post' normal science, I follow Wilkinson's lead. He argues, "A theory of order is hamstrung

from the outset by the fact that disorder, not order, is the dominant feature of many, and perhaps most, human events” (Wilkinson 1970:151). Thus, as Wilkinson states (twenty years later): “What is needed is a conception of community that recognises its complexity” (Wilkinson 1991:7).

Wilkinson’s recognition of the role of complexity for understanding community provides a starting point. The notion that community (and society) is complex is not new. What is new is how we think about complexity. The opportunity arising from this new thinking is to accept complexity as an epistemological foundation for observing the possibility of community. To be clear, presuming complexity as the basal condition is not about studying community as a complex object. Rather, the inquiry pursued in this dissertation replaces the presupposition of an orderly reality with a presupposition of complexity, i.e., a state in which it is no longer possible at any moment to relate every element with every other element (Luhmann 1995).

The research question may be stated as: What is the meaning of community if one presumes complexity as the foundation for inquiry? A presumption of complexity provides a critical and radical point of departure that circumvents the dominant norms, assumptions, philosophy, and methodology of community theory. Within the intellectual ‘space’ of a ‘post’ normal science, the meaning of community is neither too elusive to define nor too complex to understand. Within this space I work from the philosophical implications of complexity and reach forward to the possibility of community.

3. SOCIAL SYSTEMS THEORY

Introduction

The review of community theory presented in Chapter 2 indicates that an inquiry into the meaning of community must contend with how ambiguity arises from limitations of normal science. As a radical approach to deal with this issue, embracing complexity is a point of departure from the normal science of community theory and a point of entry to other possibilities. Presuming complexity as the basal condition of inquiry is not about studying community as a complex object. Rather, a 'post' normal science replaces the presupposition of an orderly existence with a presupposition of complexity. To change from a normal to a 'post' normal science of community we must be willing to deal with the ontological and epistemological issues that arise from accepting complexity as a foundation of inquiry. As Tudor argues: "It is one thing to recognise that there are unavoidable limitations on our truth-claims; it is quite another to be paralysed into dealing only with trivial issues because the complex ones raise too many philosophical problems" (Tudor 1982:15).

Past approaches to the study of community are inadequate for understanding processes of complexity (Bernard 1973) because they fail to account for disorder (Wilkinson 1970; 1991) and indeterminacy (Boudon 1984). What is required to frame a 'post' normal inquiry into the meaning of community is a social theory that accommodates complexity, such as the general theory of society developed by the German sociologist Niklas Luhmann. Luhmann's general theory represents a new approach by which we can observe the possibility of community (and society) as a self-referential social system. Self-referential systems represent a 'new paradigm' in the

simple sense that self-referential systems are not like previous sets of assumptions, theories, and approaches used for the study of systems (or for the study of community).

The advance of systems theory over the past twenty years provides an opportunity to gain new insights about the complexity of community. Theories of systems generally deal with scale, elements, relations, and boundaries as matters of ontology, which delimit a system as an object of analysis. Such analytical systems are metaphorical; there is little debate that the observer selects the boundaries and elements that define the system. In Luhmann's general theory of society, and in this dissertation, systems are real.

Thus they [systems] do not begin with epistemological doubt. They also do not advocate a 'purely analytical relevance' for systems theory. The most narrow interpretation of systems theory as a mere method of analysing reality is deliberately avoided. Of course, one must never confuse statements with their objects; one must realise that statements are only statements and that scientific statements are only scientific statements. But, at least in systems theory, they refer to the real world. Thus the concept of system refers to something that is in reality a system and thereby incurs the responsibility of testing its statements against reality. (Luhmann 1995a:12)

In other words, there is a fundamental difference between analytical systems (e.g., ecosystems, farming systems) and real systems. I will not deal with analytical systems in this dissertation.

This chapter addresses the epistemological and ontological implications of accepting systems as real. These implications can be introduced by way of analogy. The purpose of the following analogy is to introduce concepts from systems theory at an intuitive level in advance of a more abstract, theoretical explanation.

At a basic level, we have been taught that humans have five senses: touch, smell, hearing, sight, and taste. There may be other senses, but conventionally, without excluding other possibilities, we think of these five senses as we relate to each other and

to our environments. On a daily basis we do not rely upon detailed physiological accounts of how our senses function. Nevertheless, it is ‘normal’ to think of these five senses as being distinct. We accept that eyes see, that ears hear, that the nose smells. Each sense is organised to do its own thing: eyes do not taste; the ears do not smell. In systems terms, each sense is distinct because it is an operationally closed system. For example, an optic system functions to respond to changes in light intensities and only to light intensities. It is a system’s function that both defines a sensory system and distinguishes it from the other sensory systems.

We also generally accept that the information gathered by each of our five sensory systems is processed in the brain. A nervous system links the cognitive processes of the brain with each sensory system. In this cognitive process we maintain that the brain is distinct from each sensory system. That is, our ability to think is not the same as our ability to see, hear, smell, taste, or touch. In this way we can also think of the cognitive system as operationally closed. We do not confuse the brain’s ability to process nerve impulses with the eyes’ ability to see or the ears’ ability to hear. But the brain and each of the sensory systems are linked, i.e., they are open to each other. In systems terms, each system is operationally closed *and* structurally open. When we talk about the ‘links’ among systems (e.g., between the optic system and the cognitive system) we refer to the ‘structural coupling’ of systems. On a daily basis we need not concern ourselves with this level of analysis. When something happens out of the ordinary, e.g., an accident impairs one of our sensory capacities, we are taken aback by the ‘miracle’ of these biological phenomena. Each sensory system provides a unique experience of the world, a distinct emergent reality. Each sensory system is an emergent

property of biological systems; cognition is an emergent property of the brain; and, consciousness is an emergent property of cognition.

This over-simplified account of sensory systems of the human body helps to introduce ways to think about systems as real. The next step is to extend this basic line of thinking to the human capacity to communicate. That is, we want to think of communication as a (real) system distinct from the capacity to think and from each sensory capacity. The challenge is to think of communication as an emergent reality in its own right. Sensory, cognitive, and communication systems are distinct yet interconnected. We can't conceive of one without another. Biological processes are necessary preconditions for the emergence of cognition, which is a necessary precondition for the emergence of consciousness (psychic systems), which is a necessary precondition for the emergence of communication (social systems). Granted, it may be easier to think of the cognitive and sensory systems as organisationally closed, at least by the analogy provided. Nevertheless, we can readily appreciate the difference between thinking and communicating in everyday terms. For example, a room of people can think at the same moment about whatever they want to think about, largely unhindered by those around them. Yet, if everyone in the room started talking with each other at the same time, chaos would likely ensue. By this account, the cognitive process is not linear; but communication is almost linear, e.g., one person at a time, one word at a time. The premise of Luhmann's theory is that society is an operationally closed system of communication.

In the remainder of this chapter, I present Luhmann's general theory of society as a framework for an inquiry into the meaning of community. At a general level, I answer

the question: What is a system? More specifically, a review of general systems theory positions social systems within a broader discussion of other systems theories and the field of sociocybernetics. This review provides a backdrop for a general theory of self-referential systems. The latter begins by examining self-reference and difference as the basis of Luhmann's epistemology, operative constructivism. His general theory of self-referential systems is elaborated via the theories of autopoiesis and second-order cybernetics. An explanation of meaning and of the subsequent rise of systems completes an account of a general theory of self-referential systems. The next step within this chapter is to explain how a general theory of self-referential systems becomes a general theory of society. I will focus upon social systems of communication and the corresponding concepts of system types, societal differentiation, media of communication, and systems formation. To be clear, 'media' does not refer to newspapers and television, but to systems-theoretical concepts such as programs and codes of communication. Collectively, the theories discussed in this chapter comprise the framework of the dissertation.

General systems theory

What is generally referred to as 'systems theory' was first conceptualised in the 1930s, as represented by the work of von Bertalanffy, and developed more fully by the 1960s.

Systems theory, per se, is not so much a theory as it is a "theoretical framework and set of methodological tools" (Buckley 1998:3). Systems theory covers many recent concepts related to theories of complexity, such as self-organisation, autopoiesis, dissipative structures, chaotic attractors, and fractals.

Various stages of systems theory development correspond to different conceptions of system, including closed, open, and autopoietic. Each type of system is distinguished by the system's relationship with its environment and the state of the boundary. A closed system is defined by the whole and its parts. The environment has no meaning because a closed system is a system whose boundaries do not allow transfer of matter, energy, or information from the environment. Closed systems (which are not to be confused with operationally closed systems mentioned above) are associated with machines, not living or social systems. Systems theory was revolutionised when von Bertalanffy (1968) established a theory of open systems. An open system is a system whose boundaries do allow transfer of matter, energy, or information. In open systems the whole-parts difference was replaced with a system-environment difference. A system is 'open' in the sense that it exchanges energy, matter, or information with its environment; by this import and export of materials, there is change of components. An open system adapts to changes in its environment.

Early open systems theory reflects a conventional understanding of system as groups of interacting, interdependent parts (Costanza et al 1992). Mechanistic and organismic understandings of equilibrium characterise the first developments of this type of thinking (Buckley 1967). The mechanistic model is a system of elements in mutual interrelations, which may be in a state of equilibrium. Changes in the elements are counter-balanced by changes tending to restore it. The organic model is derived from biology. This view of systems is characterised by: a mutual dependence of unlike parts; considers society to be like an organism; and, views equilibrium as homeostasis. These early conceptions of open systems were embraced by many social scientists, notably

Homans and Parsons (both influenced by Henderson at Harvard³). According to Buckley (1967:9), “before them, and after Pareto, the idea of society as a ‘system’ of inter-related parts with a boundary, and usually tending to maintain an equilibrium, was explicitly entertained by N. Bukharin, P. Sorokin, F. Znaniecki, and K. Lewin, among others.” This also includes the community theories of Sanders (1966) and Warren (1963), as described in the previous chapter.

In addition to closed and open systems there are autopoietic systems. Maturana and Varela (1980) developed the theory of autopoiesis within biology. Autopoietic systems are defined as a unity of system and environment. System and environment are mutually constituted and, hence, equally important. Autopoietic systems are simultaneously structurally open and operationally closed. A more detailed account of autopoiesis will be taken up later in this chapter as it plays a central role in a theory of self-referential systems.

Different systems theories are incorporated into the social sciences. Parsons (Parsons and Shils 1951:25) represents an early open systems theory developed in the mid-twentieth century. Parsons’s model represents what is commonly understood (or misunderstood, depending upon one’s perspective) to be a social system. The model underlies many approaches to the study of community, either directly or indirectly. It is also associated with the ecological approach and, more generally, within the structure-functionalism approach (Bernard 1973). There is also strong criticism of Parsons’s social system theory for promoting the status quo and for not accommodating conflict or change (Colomy 1992; Martindale 1965). The transition from early open systems to ‘modern’

³ Lawrence Henderson, a biochemist, was an early adopter of the use of system to denote society and social processes (Lilienfeld 1978; Capra 1996).

open systems thinking (Buckley 1967, 1998) is characterised as a shift from models of mechanistic and organic systems to cybernetic models of ‘complex adaptive systems.’ Buckley’s complex adaptive system (or process system) perspective “views society as a complex, multifaceted, fluid interplay of widely varying degrees of intensities of association and dissociation” (Buckley 1967:18).

Many concepts of social systems (e.g., Parsons and Buckley) remain focussed upon ontological considerations of society as comprised of individuals. At this level of first-order description, theories account for more dynamic and less determinate analytical systems. With the rise of theories of autopoiesis and second-order cybernetics, ontological matters of social systems become matters of epistemology. For example, prior ontological considerations about system boundaries (e.g., Where do you draw the line?) become epistemic considerations about how the line of a boundary is drawn. This shift to epistemic considerations of systems is evident in the field of sociocybernetics.

Sociocybernetics

Sociocybernetics⁴ is a “new cybernetics” with a more sociological approach than the early cybernetics approach (e.g., Buckley) with its emphasis on control (Bailey 1994).

The “new” part of cybernetics is a difference between first-order and second-order cybernetics, which is a difference predicated on how one understands observation.

Theories of (first-order) cybernetics developed out of a series of annual conferences

⁴ The formal history of sociocybernetics begins in the 1990s as a Thematic Group on Sociocybernetics with the International Sociological Association (ISA). Sociocybernetics was recognised as the ISA Research Committee on Sociocybernetics at the 1998 World Congress of Sociology in Montreal (Geyer and van der Zouwen 2001). Information is available at the official Sociocybernetics website at <http://www.unizar.es/sociocybernetics>.

known as the Macy Conferences held between 1943 and 1954. Questions about the observer arose during these meetings but remained unresolved. Hayles argues:

By and large, first-wave [early] cybernetics followed traditional scientific protocols in considering observers to be outside the system they observe. Yet cybernetics also had implications that subverted this premise. The objectivist view sees information flowing from the system to the observers, but feedback can also loop *through* the observers, drawing them in to become part of the system being observed (Hayles 1999:9).

The self-referential nature of observations is resolved as “second-order cybernetics” (von Foerster 1984). Hence, first-order cybernetics is the cybernetics of observed systems; second-order cybernetics is the cybernetics of observing systems. Second-order cybernetics is also considered a theory of observation and, as such, can also be referred to as second-order observation.

Geyer and van der Zoewen (2001) identify several key concepts of first- and second-order cybernetics that influence social science. First-order cybernetics stresses defining clear boundaries of the system under study. These boundaries pose observable limits on the circularity of feedback (cybernetic control) within systems. Circularity involves either positive (deviation-amplifying) or negative (deviation-reducing) feedback loops. First-order cybernetics is interested primarily in the application of negative feedback loops to solve engineering problems, e.g., by keeping mechanical systems operating within specified margins around a point of equilibrium. Underpinning the application of second-order cybernetics to social systems is a form of self-reference. The premise is that a system observes its own boundary, which concomitantly defines it as a system: a system is a collection of relations among elements conditioned by its own rules of inclusion or exclusion (Luhmann 1995a:20-23).

Operative Constructivism

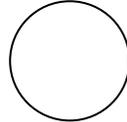
The shift to second-order cybernetics brings system theory – and this dissertation – to its epistemological foundation as a social science of complexity. At issue is the circular causality via self-observation described above. The same issue is relevant to the *problematique* of this dissertation. To examine the meaning of community I must first discern methods from value judgements, theory from object, description from reality, and the observed from the observer. To get to this problem of self-reference, and to break from the closure of the normal science of community theory, I adopt complexity as a foundation of inquiry. But a presumption of complexity is not in and of itself an epistemological basis of inquiry. Complexity must produce adequate determinacy for the inquiry to begin. Otherwise complexity would be the equivalent of undifferentiated chaos, as the extreme case in which either everything is included or nothing is included. To provide adequate determinacy, complexity itself must presuppose selectivity. And, as we will discover through the following discussion about operative constructivism, selectivity presupposes self-reference.

The fact that complexity always presupposes a self-referential selection is demonstrated by Robertson's (1999) examination of how some-thing can emerge from no-thing.

Try to imagine nothingness. Perhaps you envision a great white expanse. But then you have to take away the quality of white. Or perhaps you think of the vacuum of space. But first you have to take away space itself. Whatever the void is, it has no definition, no differentiation, no distinction. When all is the same, when all is one, there is no-thing, nothing....

Now make a mark, a distinction, within this void. As soon as that happens there is a polarity. Where before there was only a void, a no-thing, now there is the distinction (the mark) and that which is not the distinction. Now we can speak of 'nothing' as some-thing, since it is defined by being other than the distinction.

...Let's bring it down to earth with an example. For our void, our nothingness, imagine a flat sheet of paper. Let's imagine that it has no edges, that it keeps extending forever. In mathematics this is called a plane. Of course, this infinitely extended piece of paper isn't really nothing, but it is undifferentiated—every part is the same as every other part. So it can be at least a representation of nothing. Now draw a circle on it, as below. You'll also have to imagine that this circle has no thickness at all. It simply separates two different states, which we would normally think of as 'inside' and 'outside.' Following Spencer Brown's terminology, we'll call this the 'first distinction.'



Where there was no-thing, drawing the circle creates two things: an inside and an outside (of course, we could just as readily call the outside the inside and vice versa. The names are arbitrary). Let that which is enclosed be considered the distinction, the mark, and what is outside 'not the mark' (remember the circle has no thickness whatsoever.) Now, of course, any distinction whatsoever would do. Any difference one could make which would divide a unitary world into two things would be a proper distinction.... But there are infinitely many distinctions possible within the world. (Robertson 1999:46-7)

Robertson's exercise illustrates how some-thing can emerge from no-thing. But how does this relate to complexity? It was stated above that complexity and selectivity are inter-related. What Robertson shows us is that some-thing and no-thing are also inter-related. He also shows us how we can think of some-thing as a selection from nothing or, in other words, how a selection is always made from a horizon of infinitely many possibilities. Complexity is to be understood in these terms. Previously, I described complexity as a state in which it is no longer possible at any moment to relate every element with every other element. This can now be re-stated: complexity is a relationship; the selection of some-thing from no-thing. More technically, complexity is the relation between the range of possibilities and the reductive strategies that structure the access to these possibilities (Beyer 1984; Luhmann 1995).

Complexity, therefore, does not appear as a state of affairs but must be seen as a selective relation between two sides of a distinction (Beyer 1984). Two important points follow: (1) the operative reduction of complexity involved in this asymmetrical relation constitutes selectivity; (2) the reduction, that is, the fact that the inside of the circle is created by a selection from many possibilities, *also constitutes the selection that it constitutes*. Thus, selectivity and complexity are inherently self-referential. In a deontological sense, complexity is presupposed as a selected relation, not observed as a state. The selected relation indicates the relation of a more complex state (outside the circle) and a less complex state (inside the circle). But the selected relation can only be understood in terms of the selection made. It is in this sense that Robertson's exercise demonstrates what it means to presuppose complexity as possessing adequate determinacy. While complexity can be understood generally as a state in which every element cannot be related to every other element, this state is only observable as a selective relation. Complexity is neither some-thing nor no-thing.

The idea of a unity of a marked and an unmarked space redefines what we think of as a whole. The unity of the marked and unmarked space that Robertson refers to as "world" must be what Rasch (2002) describes as a unity presupposed, not a unity that can be observed. Rasch explains that by re-constructing the whole as a unity of difference (the difference between the marked and the unmarked sides of the distinction) we are no longer in the realm of a foundationalist philosophy, but rather in the realm of a "second-order" philosophy of observations. To see how this second-order philosophy is about an operation of observing, we can follow Rasch's discussion about consciousness.

Rasch's argument begins: "For pure consciousness to be conscious of itself, it must be conscious of itself as other; thus it must slit itself in two" (Rasch 2002:4). That is, consciousness posits itself as self and not-self. Yet, both self and not-self emerge from a common reference: the logically presupposed self (or absolute self). A problem of logic arises. Logically, the self refers not only to itself ($A = A$), but also to the not-self ($A = \text{not-}A$). The logical implications that unfold lead to a problem of paradox. Namely, the self both annuls and does not annul itself. Without getting into the details of Rasch's discussion, of present interest is that the paradox is 'resolved' by introducing the absolute self, the position from which we started – the position of the excluded third. When self is both self and not-self, "a middle that ought to be excluded is included" (Rasch 2002:5). In terms of Robertson's exercise, the excluded third is the "absolute self" that draws the distinction between the marked and the unmarked space. The excluded third is the observer.

Thus, an adequately determinate complexity must start from a paradoxical beginning. In an arbitrary sense, "whoever wants to observe must observe *something* and distinguish it from other objects" (Luhmann 2000a:41). At a fundamental level, paradox lacks connectivity; it revolves within itself. A search for the first distinction, for the starting point, necessarily leads to an infinite regress and therefore cannot be answered – one would have to start distinguishing in order to do so. This is why one needs to begin with a concept of complexity that produces adequate determinacy.

The idea of a social world constructed upon distinctions (between A and not-A) gives shape to Luhmann's operative constructivist epistemology. The (social) world he purports to observe can only be observed partially and only from within the world we

construct. The world takes the form of distinctions in order to see itself. “But *in order to* do so,” Rasch maintains, “evidently it must first cut itself up into at least one state which sees, and at least one other state which is seen” (Rasch 2002:7). In other words, the operation of constructivism is for the world to “cut” itself, then to observe itself as a unity of difference. It is in this sense that the unity of the world is presupposed, not a unity observed. “Any reference to the world is self-reference, and any self-reference requires external reference, a not-self against which it can be distinguished” (Rasch 2002:10). The unity is always a self-referential whole. Every attempt to describe the world always makes it recede towards a horizon. For every attempt to describe it always increases the totality described.

The world we are entering via operative construction, then, is one that embraces the paradox of self-reference as the excluded third. Thus, the operations of constructing the social world are inescapably paradoxical. In everyday activities paradox appears as entertaining puzzles. For example: Does the barber who shaves all and only those who do not shave themselves shave himself? Another example is: I am from Crete. All Cretians are liars. Paradox, however, is not a trivial matter. It is a central concept in the theoretic discourses of biology, cognition, and social systems, among others. An example in mathematics is the problem of set theory. Is the set of all sets included within itself? Russell, who spent many years finding a way around the paradox of self-referential sets, declared in the end: self-reference is not allowed (Segal 2001:39-42).

The threat to logic centres upon the law of the excluded middle (Rasch 2002). The law can be phrased as follows: “All propositions are either true or false.” This law is the functional equivalent of the ‘absolute self’ described above. The law must exclude

itself as a proposition that is either true or false, because, according to its own rules it can only be one or the other. Thus, Russell resorted to a higher law to resolve the paradox of self-referential sets (Segal 2001). Namely, to resolve the paradox of the theory of types, Russell resorts to a single, higher law: statements about totalities cannot be part of the totality they describe. Effectively, Russell blocks self-reference by excluding it as a logical entity, which is consistent with the familiar mathematics of Boolean logic based on the two conditions of true and false.

Under Boolean conditions the paradox of self-reference is resolved when the law exempts itself from its own operation. The distinction between true and false, for example, cannot be determined based on Boolean logic, but by other criteria. Consequently, another paradox arises: “A law determines what is and what is not legitimate, but it cannot justify its own legitimacy without implicitly resorting to a higher legitimacy, a higher law—a move that introduces, once again, the danger of infinite regress” (Rasch 2002:16). In other words, like the absolute self, “the law of the excluded middle must effectively *be* the excluded middle; it must simply be, rather than be either true or false” (Rasch 2002:16).

To explore the logic of the excluded middle requires a step deeper into the world of mathematics. Here we find Spencer Brown’s laws of form. Whereas Russell resolves the problem of paradox in set theory by *excluding* self-reference, Spencer Brown seeks to include self-reference in his arithmetic. His laws of form are mathematical rules that govern Robertson’s exercise of getting some-thing from no-thing and Rasch’s idea of the self-positing self. Keeping the latter in mind may help to alleviate the opacity of Spencer

Brown's mathematics. (Technically, Spencer Brown's proto-logic is the arithmetic of the algebra of logic.)

Spencer Brown re-writes the foundation of logic by focussing upon what is described as perhaps the single purest mathematical system ever developed (Robertson 1999). The implication for mathematics is significant (Kauffman 2002). Ordinary logic can no longer be the foundation of mathematics. "The idea is that there are 'logical values' beyond true and false, and that these values can be used to prove theorems in domains that ordinary logic cannot reach" (Kauffman 2002:51). The challenge is to include the excluded third as a third condition of logic such that, in addition to true and false, one can also have the self-referential unity of 'true and false.' To meet this challenge, Spencer Brown creates an easily manipulable symbol system for formalising problems about how a paradoxical, self-referential whole is constructed by the mere act of making a distinction (i.e., about how to get some-thing from no-thing).

Spencer Brown starts with the injunction: "Draw a distinction!" (Spencer Brown 1969:3). A distinction is "a boundary with separate sides so that a point on one side cannot reach the other side without crossing the boundary" (Spencer Brown 1969:1). When we drew the circle in Robertson's exercise (above) we drew a distinction. A distinction is a *form*: a difference of pure self-reference. Forms, however, can only be articulated asymmetrically by indicating only one of their sides (the internal side) but not the other (the external side). To indicate both sides of the form requires one to 'cross' the boundary from one side to the other. Spencer Brown's arithmetic follows from this basis.

Spencer Brown devised a set of symbols to represent a form. The set consists of only two symbols: a right angle that can embed itself within itself multiple times and in

multiple ways (\ulcorner), and a blank space (\quad). These symbols can also be thought as a distinction in the void and the void, respectively. Using only these two symbols, Spencer Brown develops a highly abstract calculus that he uses for his mathematics. There are only two laws that govern forms. When you ‘add’ two marks together, you get a mark.

This is the first law:

$$\ulcorner \ulcorner = \ulcorner$$

When you cross one mark into another mark (i.e., place one mark inside another mark) you get unmarked space, a void. The second law is represented as:

$$\ulcorner \ulcorner = \quad$$

It is not the place here to go into detail about the arithmetic. Robertson (1999) provides an excellent introduction to this aspect of Spencer Brown’s work by making an analogy to walking in an empty space (an undifferentiated plane) and encountering the edges of the circles. Kauffman (2002) presents a more formal description. Schiltz and Verschraegen (2002) discuss specifically the laws of form in relation to Luhmann’s “autological” theory. And one can always read Spencer Brown’s text. The following draws primarily from Robertson.

Rather than the arithmetic itself, I am interested in the self-reference that Spencer Brown encounters in devising his arithmetic. By introducing variables into his arithmetic, Spencer Brown found equations where a variable was forced to refer to itself.

For example:

$$f = f \ulcorner$$

In this example, if the value of the function is a mark, then it is not a mark; if the value is not a mark, then it is a mark. Inescapably, we are dealing with an impossibility caused by self-reference: a function referring to itself.

Spencer Brown's arithmetic accounts for the two possibilities of mark and no-mark. Yet, a third solution arises when a function refers to itself, a solution that oscillates between mark and no-mark: first the solution is the mark, then it is not the mark, and so forth endlessly. For Spencer Brown, this third solution existed in time, not in the initial space of the distinction. "Just as the space created by *Laws of Form* has no dimensions, neither does the time created by it. You can't refer to it in seconds or minutes; it is more primitive than that" (Robertson 1999:52). In this sense, self-reference was included in the arithmetic, but excluded from the initial space.

Varela, building upon the work of Spencer Brown, brought self-reference within the initial space of the marked and the unmarked, thus re-defining a two-value arithmetic into a three-value one (Robertson 1999). In this move, Varela admits self-reference as a part of reality as valid as Spencer Brown's primary distinction. Admitting self-reference into the initial space of the distinction permitted the observer to re-enter the observed world. As will be discussed later, this is the basis of the theory of autopoiesis. The present task is to relate self-reference to Luhmann's operative constructivism.

Second-order philosophy works from a foundation of three primary entities that constitute all reality. The idea is that some-thing can emerge from no-thing as the unity of the difference between some-thing and no-thing. As Kauffman (2002) notes, in Tibetan Buddhist logic there is existence, non-existence and that which neither exists nor does not exist. This way of thinking does not fit a rational frame of mind, wherein

‘rational’ is predicated on a difference from irrational: inevitably, rational is irrational. Such dichotomies are not false, as much as they are predicated on a (unsatisfactory) logic that conceals the contingency of a selection by excluding self-reference.

In effect, the laws of form provide a manual on how to construct the social world (Rasch 2002). In the operation of drawing, one side of the distinction is marked (e.g., the inside of the circle); the other side is unmarked. The process continues by drawing further distinctions; it continues as operations of constructing the world. The ultimate form of this world is wholly contingent upon its starting point, upon the ‘first distinction.’

Still always we are dealing with self-reference. Or, more precisely, we are dealing with the unity of self-reference (the marked side) and hetero-reference (the unmarked side). Reference to the whole includes self-reference and hetero-reference. The unity of the social world then is reference to a self-referential world, which is inescapably a paradoxical one. But such paradoxes arise when viewed as a moment in time. In other words, given time, there is no paradox. Spencer Brown did not see paradox in self-reference, but time itself. Thus, we can distinguish self-reference as two structures: as paradox in an eternal world (in a moment of time); and as generative in a world of time (Kauffman 2002). One may argue, as Kauffman points out, as to whether self-reference is a construct or fundamental entity.

Operative constructivism focusses upon the operation of drawing a distinction as its epistemological foundation. Thus, drawing a distinction can be considered the “most basic act of epistemology” (Keeney, cited in Segal 2001:52). And even the most basic act of epistemology must emerge as some-thing from no-thing. The distinction

itself requires self-reference. As Kauffman (2002:52) claims, “the world is fundamentally circular.”

For Luhmann, the ‘first cut’ to constructing the social world – the operation of drawing the first distinction – is system/environment. System corresponds to the marked side of the distinction; environment to the unmarked side. As a unity of difference, no system has meaning without an environment and vice versa, no environment has meaning without a system. Consequently, all distinctions presuppose a system reference; (real) systems are *self-referential* systems, as will be discussed in more detail as a general theory of self-referential systems.

General theory of self-referential systems

Luhmann’s starting point for constructing a social world takes the form of system and environment. Correspondingly, as has been discussed thus far, the concepts of complexity, selectivity, and self-reference are inseparable from – and can be expressed only in terms of – a system/environment difference. The same applies to the basic epistemological act of drawing a distinction, which, most importantly, must be understood as a system’s operation of observation. To observe a distinction (e.g., a difference between system and environment) is to ‘draw’ a distinction. And observing is an operation of a system. It is in this sense that we can speak of observing systems. Thus, in Luhmann’s operative constructivism the excluded third is the observing system.

Before proceeding to a general theory of self-referential systems, I will repeat a few points already made in this chapter. The difference between first-order and second-order cybernetics is a difference predicated on how one understands observation. First-

order cybernetics is the observation of observed systems; second-order cybernetics is the observation of observing systems. A system's observation of its own boundary concomitantly defines it as a system. Hence, a system is a collection of relations among elements conditioned by its own rules of inclusion or exclusion (Luhmann 1995a:20-23).

Self-referential systems

In social sciences the concept of self-reference is associated with reflexivity. Reflexivity, however, is often considered an aspect or function of human consciousness or subjectivity. Social systems theory rejects the restriction of these concepts to the consciousness (psychic systems) of the thinking subject (Luhmann 1995). As a general concept, self-reference also applies to other systems, such as biological systems (organisms) and social systems. Self-reference, therefore, is a basic feature of (real) systems.

Self-reference occurs when a system observes itself (self-observation) and describes itself (self-description) as different from its environment. Self-observation and self-description are necessary operations of self-referential social systems. “[Self-reference] maintains 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 1995a:33). As a relational operation, self-reference describes system/environment both as a unity and as an operation of relations, i.e., as paradox in an eternal world and as a generative mechanism in a world of time.

Paradox leads to indeterminable complexity: an observer cannot relate one element to another because one does not know which side of self-reference to choose. More critically, there is no basis for choosing. The system de-paradoxises itself through

self-observation and self-description, which is to say that systems arise from paradox but only if they successfully de-paradoxise themselves. This is achieved by using self-description as a meaningful system/environment difference. In other words, meaning is assigned to the environment through the process of self-observation and self-description. Only the system can decide what is meaningful. Only the system can determine what to accept as constituting itself and how to demarcate its identity from other systems. Basally, self-referential operations are possible because systems are able to observe themselves. In Luhmann's social systems theory one cannot escape self-reference because "every difference is a self-imposed difference" (Luhmann 1995a:209).

A theory of self-referential systems, therefore, is about a selection that is triggered by establishing a difference. Namely, a system is a system because it is different from its environment. The difference between system and environment is meaningful if it is a difference that makes a difference. "Difference does not determine what must be selected, only that a selection must be made. Above all, the system/environment difference seems to be what obliges the system to force itself, through its own complexity, to make selections" (Luhmann 1995a:32). Systems, therefore, are constructed via their own operations, which presuppose a capacity to select and to connect to other operations.

The fundamental self-reference of a system allows the system to construct an identity through its own operations – by observing itself as a distinction. "This means first of all, in an entirely general sense: there are systems that have the ability to establish relations with themselves and to differentiate these relations from relations with their environment" (Luhmann 1995a:13). In other words, systems constitute themselves by

creating a difference from an environment. “Without difference from an environment, there would not even be self-reference, because difference is the functional premise of self-referential operations” (Luhmann 1995a:17).

The system/environment distinction can also be expressed in terms of complexity. The inside of the circle, the marked side, is always less complex than the outside of the circle or the unmarked side. Likewise, the difference between system and environment is a difference in complexity, i.e., the difference is a complexity gradient. There are always more possibilities in the environment than in the system. The complexity of a system must be understood as a self-referential selection: system/environment is a selected relation selected by the system. Because complexity presupposes a selective strategy, a difference in complexity always presupposes selection. That is, the capacity for reducing complexity is the selectivity of the system. Or, stated differently: the capacity of the system is related to the system’s ability to reduce complexity. Thus, while complexity enforces selectivity, the system functions to selectively reduce complexity. By the same logic, complexity must always be observed as constituted by a system. The function of a system, therefore, is a relation between the system and some problem of reference (Beyer 1984).

Indeterminate complexity, like paradox, enforces selection. The selection is a necessary distinction between system and environment manifested as a self-description. “Determining what a system is requires determining what a system is not” (Fuchs 1988:24). As demonstrated above, Spencer Brown’s laws of form enable us to acknowledge the paradox of self-reference without having to end the discussion. Hence, it is not a ‘problem’ for systems to define themselves. It is, in fact, the only possibility. A theory of self-reference accepts paradox, embraces it, so that not

comprehension from outside, but only self-description from within in the course of a system's own operations is possible.

Self-reference, selection, and complexity always presuppose contingency. "The reality of this world is presupposed by the concept of contingency as its first and irreplaceable condition of possibility" (Luhmann 1995a:106). Given the interdependence of complexity and selectivity, a reference always refers to a horizon of possibilities. Contingency, therefore, implies that another possibility could always have been selected.

As a way to summarise the discussion of self-referential systems thus far, I will focus briefly upon a few basic questions. Namely: What is a self-referential system? How is it real? What are its elements? What is a system boundary? A more detailed explanation of how self-referential systems operate follows.

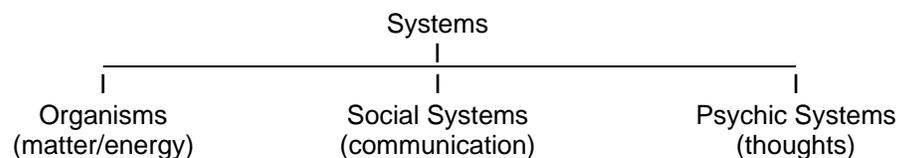
Generally, a theory of self-referential systems presents a de-ontological conception of system. This means that a system is a collection of relations among elements conditioned by a rule of inclusion or exclusion. Self-referential systems are systems that differentiate only by referring to themselves in constituting their elements and their elemental operations, which is made possible by systems employing the difference between system and environment within themselves, i.e., as a self-description. Self-referential systems are operationally closed systems, which is a way to express in systems terms what has already been discussed as drawing a distinction. Operational closure means a system consists of self-produced elements: "Everything that functions in the system as a unity – if only as a last element which cannot be further decomposed – is produced in the system itself through a network of such elements" (Luhmann 1995b:5). In other words, all the operations of a system are

always internal operations. While system and environment are mutually constituted, there is no direct relationship with the environment via operations, which is to say that a system is closed with respect to its environment.

Operational closure does not, however, preclude a relationship between system and environment, although this relationship is not like system-environment relations in open systems, for example. The term used to describe the relation between self-referential systems and its environment is structural coupling. Structural coupling refers to a relationship similar to the relationship discussed above between self and not-self. That is, one cannot talk about a self without designating a not-self, i.e., as if one could designate the self as if nothing else existed (Luhmann 1995b). Structural coupling indicates this sense of environmental dependency. The relationship between self-referential systems, e.g., the relationship between communication (social systems) and perception (psychic systems), is identified as interpenetration.

This dissertation refers to three types of self-referential systems, as shown in Figure 1. Briefly, social systems use communication to process meaning. Psychic systems use thoughts to process meaning. Organisms use matter/energy to process life. A social system consists of communicative events, not subjects or actions. Hence, it is incorrect to think of social systems as collections of individually constituted subjects.

Figure 1. Conceptual Schema of Self-referential Systems.



In social systems theory, self-referential systems refer to the real world; they are not purely analytical devices. Self-referential systems are emergent and contingent: they are neither necessary nor impossible – they don't *have* to exist. A system is real only at the elemental level (e.g., communicative acts in social systems, thoughts or ideas in psychic systems).

Based on this theoretical distinction among types of self-referential systems, one can no longer think of communication as a 'transmission' of information from one person to another person. Rather, communication is a distinct, operationally closed system; it is an emergent reality that presupposes living beings capable of consciousness (Luhmann 2000a). While we can describe psychic systems as the pre-condition for social systems, we can also describe the relationship as one system compensating for the limitation of another. "Consciousness compensates for the operative closure of the nervous system, just as the social system compensates for the closure of consciousness" (Luhmann 2000a:10). In evolutionary terms, we can observe changes within social systems as part of a process compensating for its own closure. We can observe society's evolving capacity for increasing connectivity, for example, as will be discussed in more detail later in this chapter.

A self-referential system is purposeless, in the sense that self-referential operations provide a sufficient account of a system. A system persists only so long as it self-reproduces. Rather than teleological, systems are anti-teleological or "auto-telic" (Knodt 1995). A self-referential system, in other words, is primarily concerned with its own self-reproduction.

The boundary of a self-referential system is defined by its ‘first distinction,’ the self-constituted difference between system and environment. Like other terms, the boundary, too, is premised upon a system’s self-referential operations. As such, the boundary of a system is constituted by the operational closure of the system. In self-referential systems, system/environment is a unity of difference, co-determined, and self-determined. Thus, when we speak of boundary we are referring to the operations (or organisation) of the system that both maintains and determines the system/environment distinction. For example, social systems are organisationally defined by communicative processes; all that is communication belongs to a social system; what is not communication constitutes the environment of a social system. As the theory of self-referential systems de-ontologises the concept of system, it also de-ontologises the concept of boundary.

Next, a more detailed discussion focusses upon the operations of a self-referential system. A theory of how systems process self-reference as difference is based on the inter-related theories of autopoiesis, cybernetics, and meaning.

Autopoiesis

The word *autopoiesis* means self-producing, as derived from the Greek words for ‘self’ and ‘to produce.’ In biology, where the concept was developed, autopoiesis applies directly to the autonomous dynamics of living systems, such as the cell and the nervous system. Autopoiesis requires “us to treat seriously the activity of the nervous system as determined by the nervous system itself, and not by the external world; thus the external world would only have a triggering role in the release of the internally-determined

activity of the nervous system” (Maturana 1980:xv). By definition, an autopoietic system reproduces itself (produces the processes which produce it) and produces and maintains its boundaries. The terms autopoietic system and self-referential system are interchangeable. Since the term autopoietic system is more strongly aligned with biology, self-referential system is the term used here for social systems.

In biology, autopoiesis refers to the process of self-reproduction that is autonomous and purposeless. In relation to the analogy presented above (pages 32-34), none of the sensory systems is conceptualised with a purpose or goal (e.g., the goal of the optic system is not to see; it merely responds to changes in intensities of light). Each sensory system’s autopoietic organisation provides a sufficient account of the system. It is only when the optic system, for example, is related to a person is the concept of function relevant.

The purpose, or purposelessness, of an autopoietic system derives from its autonomy. Everything that is used by the system is produced by the system itself. Thus, whenever describing a system, self-reference is necessary in order to explain closure. “If the process of making the connection and selection of operations in the system is stabilised by self-description, we arrive at the extremely complex process of autopoiesis, which is the basis of self-producing systems” (Teubner 1993:16). The concept of autopoietic autonomy is also called operational closure, informational closure, or organisational closure.

Autopoietic systems are operationally closed and structurally open. Autopoietic systems are open in the classical sense of exchanging matter/energy and information across their boundaries with their environments. Systems are *structurally* open in the

sense that perturbations in the environment affect systems, i.e., autopoietic systems are open to perturbations in the environment. However, given their operational closure (autonomy) only the system itself determines what is and what is not a perturbation.

An example helps to illustrate the nature and logic of autopoietic (self-referential) systems. The accounting system, as constituted by the Generally Accepted Accounting Principles (GAAP) can be conceived as an operationally closed, structurally open system. The GAAP accounting system determines for itself how to debit or credit a financial transaction. Accounting is what it is, as distinct from something else, because of its system of debit and credits. Stated otherwise, the system of accounting via its self-making debits and credits is operationally closed. Professional certification is one way to maintain system closure. An accounting system is also structurally open. The rules of accounting define its structure. For instance, when a government changes a law about income taxes the accounting system can observe the tax change as a perturbation in its environment and change the rules of accounting to accommodate the perturbation. To be clear, it was the accounting system that observed ‘for itself’ that the tax law change was a perturbation and self-produced rules to ‘adapt’ to the perturbation in its environment. In this sense, closure is a condition of openness.

The concept of autopoiesis lends an additional perspective to the epistemological issues discussed above. Varela “firmly believe that there is a major change, or trend of a change in our contemporary sensibilities and scientific epistemology in the sense that we are becoming more and more interested in an epistemology which is not concerned with the world-as-picture, but with the *laying down* of a world, where a unit and its world co-arise by mutual specification.” (Varela 1984: 31). The epistemological implications of

adopting autopoiesis as the basis for understanding social systems are examined further as the cybernetics of observation.

Cybernetics of observation

Understanding how systems create for themselves the possibility of organising self-reference requires formal concepts of observation. Cybernetics provides the necessary concepts. Cybernetics is concerned with observation and self-observation. A theory of observation centres upon the distinction between first-order and second-order cybernetics (or first- and second-order observation). First- and second-order cybernetics can be distinguished as follows. First-order cybernetics is the cybernetics of *observed* systems. Second-order cybernetics is the cybernetics of *observing* systems. As discussed above under the heading of general systems theory, early cybernetics is characterised as first-order cybernetics. In this early stage of systems theory, observers are deemed to be outside the system they observe.

Observing systems are based on principles of self-reference: feedback loops through the observers, drawing them in to become part of the system being observed (Hayles 1999). In effect, a theory of self-referential operations “turns the cybernetic paradigm inside out”:

We do not see a world ‘out there’ that exists apart from us. Rather, we see only what our systemic organisation allows us to see. The environment merely *triggers* changes determined by the system’s own structural properties. Thus the centre of interest for autopoiesis shifts from the cybernetics of the observed system to the cybernetics of the observer. (Hayles 1999:10-11)

The combination of autopoiesis and cybernetics raises what Hayles characterises as “sweeping epistemological implications” (Hayles 1999:10; see also Bailey 1994). The

line between observer and observed is blurred and normal systems discussions about analytical boundaries turn into epistemological discussions about the act of drawing boundaries (=distinctions). In effect, the construction of the social world is about boundaries.

In second-order cybernetics the aim is no longer to construct a theory of observed phenomena but to include the observer in the domain of observation (Umpleby 2001:89). This shift can be related to community theory. The shift marks a difference between first-order observations that normatively and empirically *describe* community and second-order observations of community recognising that a describer (i.e., the observing system or researcher) is implied in the observation. “While the [first-order] distinction suggests a tight coupling of observations and reality, and implies that there is only one observer observing ‘the same thing’ and making true or false statements, a second-order observer observing these observers would see only loose coupling and lack of complete integration” (Luhmann 1993:764). In other words, a second-order observation takes a step back from an observer-object position. One is no longer seeking to understand observed objects (e.g., community), but seeking to understand the observing system (e.g., the normal science of community theory).

To observe is to make or use distinctions. All distinctions are constrained by structural conditions. For example, an accountant observes by following the rules of accountancy (otherwise there is no point in identifying the observer as an accountant) and can only observe transactions using debit and credit. Likewise, theories of community were described as limited by normal science approaches: how researchers study community is predicated on how they observe community (and vice-versa). The

constraint is an outcome of operational closure. “[A]ll descriptions and explanations are made by *observers* who distinguish an entity or phenomenon from the general background. Such descriptions will always depend in part on the choices and purposes of the observer, and may or may not correspond to the true domain of the observed entity” (Mingers 1989:163). Since observing systems are autopoietic, observation only comes about as an operation of autopoietic systems (Bailey 1994).

The idea of system observation is related to the concept of self-observation. “Self-observation is the introduction of the system-environment distinction within the system, which constitutes itself with the help of that distinction” (Luhmann 1995a:36). Like self-reference, observation is conceived as both an outcome and process: it is both a distinction and an operation of distinguishing. “Self-observation is thus the operative factor in autopoiesis, because for elements to be reproduced, it must be guaranteed that they are reproduced as elements of the system and not as anything else” (Luhmann 1995a:36). The basic act of self-observation is the operation of drawing a distinction. Conversely, every distinction is an outcome of self-observation. Hence, the operative mandate of second-order cybernetics is: observe the observer. The operative question is: What is the distinction being made by the observer?

Meaning

Autopoietic self-observation is predicated on a system’s capacity for connecting one element to another, which is based on meaning. In the realm of social and psychic systems meaning is the interconnectedness of self-reference. As life is the medium of biological systems, meaning is the medium of social systems and psychic systems.

Meaning is not processed by all self-referential systems, but for those that do, it is the only possibility. Moreover, meaning “provides both the condition of and the means by which selections can be made” (Bednarz 1988:6). For social systems, meaning is actualised as a selection. As such, meaning cannot appear without reference to a system that constitutes it⁵. Meaning guides the selection process of a system, thus enabling a system to make distinctions and to determine for itself what is information, how it may be acted upon, and how it may be interpreted. That is, meaning designates the medium through which a social system processes complexity (Knodt 1995).

One can ask: what is the meaning of meaning? The answer presupposes that the questioner already knows what meaning is about. This self-referential nature of meaning can be expressed in terms of Spencer Brown’s laws of form. Spencer Brown’s injunction “draw a distinction” presupposes the meaning of the injunction. Thus he must begin by stating: “We take as given the idea of distinction and the idea of indication, and that we cannot make an indication without drawing a distinction. We take, therefore, the form of distinction as the form” (Spencer Brown 1969:1). In social systems, the form we take as given is meaning.

Meaning is always self-referential: it can only refer to other meaning. “Every intention of meaning is self-referential insofar as it also provides for its own re-actualisation by including itself in its own referential structure as one among many

⁵ To some readers it may seem unnecessarily strict to state that meaning is constituted by systems. However, this axiom is based on two points. First, drawing a distinction is the most basic act of epistemology (how some-thing emerges from no-thing). Second, the “first cut” is a distinction between system and environment. Self-reference thereby precludes other possibilities. Meaning is constituted by systems. Other terminology can be used. We can say, for instance, that the “first cut” is a distinction between observed and observation. But the conditions lead to the same conclusion, only with different terms: meaning is constituted by observers. By another choice of terms we might conclude that meaning is constituted by apples. The advantage of using ‘system’ is that it comes with an extensive range of theories. Most importantly, systems theories are based on self-reference, complexity, and observation. These theories enable one to advance from the concept of meaning to a general theory of modern society.

possibilities of further experience and action. At any time, meaning can gain actual reality only by reference to some other meaning” (Luhmann 1995a:61). Thus, meaning must refer to other meaning to break self-reference, yet it must always refer to meaning, hence another meaning.

Since meaning can only refer to meaning, a social system must find a way to resolve its own paradox of self-reference by using meaning. It does so by distinguishing among three types, or dimensions, of meaning. These dimensions break the basal self-reference of meaning by re-specifying itself as either fact, temporal, or social. In this way, debate about fact, temporal, or social always takes place on the level of meaning. The fact dimension of meaning relates directly to the act of drawing a distinction; it divides reference into ‘this’ and ‘something else,’ into the marked (self-reference) and unmarked (hetero-reference). In this sense, the fact dimension of meaning refers to objects of meaningful intentions (in psychic systems) and to themes of meaningful communication (in social systems). The temporal dimension of meaning is constituted by the difference between before and after. Thus the temporal dimension is related to all events and can be expressed, for example, as the difference between past, present, and future. The meaning dimension of time also gives rise to the concept of history. The social dimension of meaning “concerns what one at any time accepts as like oneself” (Luhmann 1995a:80), thus accounting for the fact that at any time other perspectives come into consideration of one’s own. The social dimension exposes meaning to the possibility of rejection or acceptance via dissent, consent, and consensus.

Each of the three dimensions of meaning provides an interpretation of reality and is actualised by different systems in different ways. By increasing the possibility

of interpreting emergent realities, the three dimensions of meaning increase the possibility of system formation. At the same time, the operational self-reference of meaning closes social systems from its environment and holds systems open to other meaningful possibilities.

For Luhmann, self-reference of meaning is necessary to break a one-to-one correspondence between the system and the environment (Beyer 1984). If every difference in the environment held the same meaning for the system, then there would be no difference in complexity, and no system. As stated above, a system is indicated as a difference by assigning meaning to the environment. This solves the problem of circularity by interrupting interdependence. A system “asymmetricises” (Luhmann 1995a:66) itself according to differences that are never pre-given as such but are actualised as operations of a system.

The asymmetry of a marked and an unmarked space relates to Husserl’s phenomenology of meaning, which Luhmann relies upon in his earlier work. In contrast with Husserl’s phenomenology, the reference of meaning is not the transcendental subject but the empirical operations of self-referential, observing systems (Knodt 1995). Luhmann rejects the transcendental subject for its unifying and axiomatic conditions that, while useful in its time, stands in the way of a more adequate theory of society (Beyer 1984). Notwithstanding these differences, meaning in the phenomenological sense is the ‘horizon’ of possibilities that are not represented in the meaningful structure. Meaning is the difference between the actual and the possible. Beyer (1984) explains this as follows: an actualised A appears against a background of all that is *not* A. The undetermined As are the horizon of A; they are the condition for the possibility of A. Meaning is what

“gives experience and action a structure in terms of which these can be recognised as experience and action and can vary or be varied” (Beyer 1984:xv). The notion of horizon applies to each of the three meaning dimensions.

Systems that constitute and use meaning presuppose a world that appears as the ultimate horizon of all meaning. The concept of a world co-implies the unity of difference between system and environment. As an “ultimate concept” the world is without differences: “Originally and phenomenologically, the world is given as an ungraspable unity” (Luhmann 1995a:208). The world can be determined as the unity of a difference only by and in relation to system formation. Therefore, each constitution of the world is particular to each self-referential system. For instance, if there is an environmental disaster that requires massive clean-up, environmentalists count the number of dead animals, economists calculate the economic impact of the disaster, lawyers determine who is legally responsible, and accountants make sure all the financial transactions are accounted for using rules of debit and credit. The constitution of a meaningful world “corresponds to the hypothesis of the closure of self-referential system formations” (Luhmann 1995a:62). Which is to say that the world presupposes meaning. And, to return to an earlier matter, complexity presupposes adequate determinacy. A problem of reference always reaches back for determinacy and forward for connectivity.

System formation (double contingency)

To understand system formation one must understand the improbability of connecting one element to another in a world presupposed as an ungraspable unity. Systems, like every other selection, function as a selection within a horizon that includes all

possibilities and indicates further ones. Meaning, as the connective capacity of self-referential systems, is “a determinate strategy of selective behaviour under the condition of extreme complexity” (Habermas and Luhmann 1971:12, cited in Bednarz 1988). Selection, therefore, is always contingent. Something is contingent “insofar as it is neither necessary nor impossible; it is just what it is (or was or will be), though it could also be otherwise” (Luhmann 1995a:106). In other words, the possibility of system formation contends with the indeterminacy of making a selection of some-thing from nothing and the simultaneous contingency of the selection itself.

To make things more improbable, the possibility of social system formation is applicable not only to one closed system but to the ‘successful’ communication between two closed psychic systems (i.e., between two people). This can be described as a state in which two black boxes make their own behaviour contingent upon the behaviour of the other (Knodt 1995). Luhmann uses the term ‘double contingency’⁶ to account for the possibility of system emergence from such a state. Because no selection can occur without first solving the problem of indeterminacy, there must, at some point, be suitable conditions of selectivity. Double contingency refers to this basic condition.

There are two consequences of denoting double contingency as a condition of selectivity. First, the possibility of harmonising connections among selections cannot be guaranteed because both sides of an interaction are contingent. Likewise, advance consensus cannot be guaranteed either. Second, the way that connections can be made among selections can also be selected: “selection is doubly selected” (Luhmann

⁶ Double contingency is a term that Luhmann carries forward from Parsons but acquires particular meaning when brought within a theory of self-referential systems.

1995a:135). That is, the element is selected, as is the domain of elements from which the element is selected.

How one determines the selection of selection is the decisive factor in understanding the formation of self-referential social systems. The basic problem of resolving the indeterminacy of double contingency, as just described, is that all acts are doubly contingent: my acts and your acts are both contingent such that each of us could also act differently – and we both know this and take this into account. Thus, in the eternal world (i.e., temporal dimension of meaning), it appears improbable that we will be able to connect in a meaningful way. “[A]n emergent order can arise that is conditioned by the complexity of the systems that make it possible but that does not depend on this complexity [*sic*] being calculated or controlled. We call this emergent order a social system” (Luhmann 1995a:110). Hence, systems emerge.

Systems are emergent because the paradoxical indeterminacy of pure self-reference makes action so improbable. They emerge through – and only through – the fact that both sides of an interaction experience double contingency. The improbability of action can be thought of this way. Imagine a hungry dog standing equally distant from two piles of food. In this state of indeterminacy, action will arise, the dog will choose – and it could always have chosen otherwise. The idea of double contingency implies that the piles of food have the capacity to select but are also in a state of indeterminacy as to whether or not they want to be eaten. “In provoking ‘undecidable decisions,’ the problem of double contingency fulfills a catalytic function in the emergence of a constantly changing social order whose instability is the only source of its stability” (Knodt 1995:xxviii-xxix). Complexity enforces selection; it forces one to act if one wants to

communicate. If, in addition to one's own uncertainty, another's selection is also uncertain and depends on one's own behaviour, the possibility arises of orienting one's own behaviour in regard to the situation. "The radicalisation of the problem of double contingency clears the way to this interpretation. It articulates the question 'How is social order possible?' in a way that presents this possibility as above all improbable" (Luhmann 1995a:116). The problem of double contingency draws in chance straightaway: "when no value consensus exists, one can thereby invent it" (Luhmann 1995a:105). Systems are contingent; they emerge when chance is introduced as a condition of selectivity.

The discussion of system formation concludes this account of a general theory of self-referential systems. Systems arise from double contingency, find connectivity through meaning, base their operations on self-observation and self-description, and reproduce themselves via autopoiesis. This sets out the theoretical foundation of self-referential systems while building upon an operative constructivist epistemology. Altogether, the ideas presented in this chapter support the statement: self-referential systems are real.

The next task is to make use of this self-referential theory to construct a general theory of society. Adopting self-referential systems has significant implications for how we usually conceive of 'social.' A discussion of these implications will preface a theoretical account of society as self-referentially closed systems of communication.

Toward a post-humanist conception of social⁷

The philosophical implications of self-referential systems come together in a discussion about the concept of social. Conventionally, social refers to relations among individuals. The double contingency of self-referential systems dissolves a subject- or individual-centred social order. Selection is no longer conceived as carried out by an individual. Rather, selection is a difference made within a system. Hence, the subject is replaced by self-referential observing systems. In this sense, selection is a “subjectless” event (Luhmann 1995a:32).

Ever since Husserl, the ‘subject,’ analogous to action, could no longer be viewed as the basis for a social theory of organisation (Luhmann 1995). Husserl argued that subjectivity and self-reference were inexorably bound. Husserl’s argument indicates that self-reference functions as a basal condition of ‘subject,’ as a fundamental unity of self-reference and reference to others: consciousness experiences itself as reference to phenomena. On this basis, contrary to Husserl’s own efforts, the unity of self-reference is indissoluble for consciousness and, therefore, could not be transcended. Consciousness is, at the same moment, knowledge of itself and reference to others. After Husserl, “the problem of the foundation of knowledge must be posed as the problem of the operative processing of the difference between self-reference and reference to others” (Luhmann 1995a:xli). That is, the analysis of society cannot be answered by beginning with a concept of the subject that does not account for self-reference.

Subjects exist, but should only be viewed for what the term originally implied (Luhmann 1995). That is, *subject* refers to (and should only refer to) the self-observation

⁷ The subtitle is from Knodt (1995:xxx).

of a person. Subject refers to an individual observing him or herself as an observer of his or her own observing. In Rasch's terms, the subject is the "self-positing self," the excluded third in the difference between self and not-self. To extend this systems-theoretical concept of subject to mean that society is composed of subjects is incorrect⁸. Nor can there be such a thing as *inter*-subjectivity: the other subject is always conceived as a construct of the first subject.

Normal science approaches take the unity of difference inherent in the self-referential subject as a distinction between individual (self) and society (not-self). Self-identity is separated from social identity on the basis of subject and inter-subjectivity (Luhmann 1995). Hence, society, the state, the economy, and community can be conceived as distinct entities separate from individuals.

But the staggering naiveté with which sociologists (Durkheimians, social phenomenologists, action theorists—it makes no difference) have been content with the statement that, after all, there are such things as subjects, intersubjectivity, the social, and socially meaningful action, without anyone seriously questioning this, should not be accepted anymore (Luhmann 1995a:xli).

The subject-as-external-observer "offered a basis for all knowledge and all action without making itself dependent on an analysis of society" (Luhmann 1995:xli). Alternatively, within a systems-theoretical framework the modern conceptions of the subject and inter-subjectivity are replaced by self-referential systems. To clarify what this means, a more detailed account of the distinction between social systems (communication) and psychic systems (consciousness) is necessary.

⁸ Luhmann (1995a) argues that the mis-use of the term subject developed along with the rise of modernity. The motivation for this was to conceal the self-referentiality of subject because acknowledging a situation of pure self-reference blocks further analysis: the subject is what it is (pure tautology) or the subject is what it is not (pure paradox).

Both social systems and psychic systems use meaning as the basis for autopoietic operations. “Not all systems process complexity and self-reference in the form of meaning; but for those that do, it is the *only* possibility” (Luhmann 1995a:60). By contrast, the reproduction of cells is based on chemical processes, the brain works with neurophysiological impulses. For both social and psychic systems meaning is the binding form of their complexity and self-reference (Knodt 1995).

At the same time, social and psychic systems are distinct, each organisationally closed via operations. Referring to the analogy introduced earlier helps to emphasise the *disconnection* between social and psychic systems. The challenge, as stated, was to conceive of thinking and communicating as distinct from each other as hearing is distinct from seeing. A general theory of self-referential systems informs an understanding of sensory systems as operationally closed systems. All systems, sensory, cognitive, and communication, are interconnected. We can’t conceive of one without the others – but we can conceive of each system’s operations as distinct. Psychic systems and social systems have evolved together; at any time the one system is the necessary environment of the other, but neither system directly enters the other system, e.g., consciousness does not directly enter communication. “It is therefore false (or, more gently, it is a falsely chosen anthropocentrism) to assign the psychic, that is, the conscious, anchorage a sort of ontological priority over the social” (Luhmann 1995a:98). On the other hand, people do attribute communication to persons, including ourselves. Therefore, while it is not entirely accurate, it is meaningful to attribute acts of selection and of utterance to people (e.g., “She said it”), including ourselves (e.g., “I said it”).

Given this self-referential theory of social and psychic systems, one no longer needs to question how understanding can take place *despite* the fact that participating consciousnesses remain opaque to one another (Knodt 1995). “For Luhmann, the intransparency of consciousness from the viewpoint of the social is no longer an obstacle to be removed but the very condition that makes communication possible” (Knodt 1995:xxv). Thus, concepts like ‘collective consciousness’ and ‘mental bondings’ are re-defined once consciousness and communication are distinguished as operationally closed systems.⁹

It is essential to keep the distinction between social systems and psychic systems as a guiding difference through the remainder of this dissertation. For example, separating thinking from communicating re-frames our understanding of concepts like sense of community, sense of belonging, sense of attachment, and sense of place. One is free of reconciling multiple consciousnesses at the level of meta-consciousness. Instead, the separation of social and psychic systems creates an opportunity to focus upon the relation between the two systems and upon the pragmatic effects of communication as the process of coordinating how people and groups negotiate similarities and differences.

General theory of society

With an understanding of self-referential systems in hand, and clarification of the social, the discussion now builds upon these ideas toward Luhmann’s general theory of society. Society is one of three types of social system. Two other types of social systems are organisation systems and interaction systems (refer to Figure 1 on page 55). Society,

⁹ In Chapter 5, such terms as ‘collective consciousness’ are re-conceived using the concept of interpersonal interpenetration.

organisation, and interaction social systems exist at the same level; rather than as a nested hierarchy¹⁰ of social systems. Each type is defined as follows (Luhmann 1982:69-89):

- *Interaction systems*: emerge when present persons perceive one another; a face-to-face interaction; whoever is not present does not belong to the system (e.g., supper with the family; business meeting);
- *Organisation systems*: a fully distinct development of membership rules that by incorporating its own principles of boundary-formation and self-selection stabilise highly artificial modes of behaviour over long periods of time; cannot be reduced to interaction or society; and,
- *Society systems*: the comprehensive system of all reciprocally accessible communicative actions; the all-embracing social system; detached from the constraints of face-to-face interactions; not merely the sum or aggregate of all personal interactions, but of another type.

Social systems consist of communicative events. Society, a type of social system, is comprised of all communication. In this sense, society is a unique social system that has no social systems in its environment. What is not communication is in the environment of society.

Communication

Explaining communication clarifies what constitutes the elemental unit of society. To begin, communications are not 'living' units; they are not 'conscious' units; they are not 'actions' (Luhmann 1986). Nor is communication explained by using the metaphor of

¹⁰ Relations among systems can also be conceived as a holarchy (Kay et al 1999).

transmitting a message from a sender to a receiver. From a self-referential systems viewpoint, the metaphor of transmission implies too much ontology and does not reflect acts of selection (Luhmann 1995). The concepts of double contingency and meaning set out that communication is premised upon selection. And selection is premised upon observing a distinction.

When people communicate, they are always making a selection among other possibilities; communication is always a reduction (and preservation) of complexity. Likewise, meaning is always contingent, one meaningful distinction among a horizon of possibilities. People extract meaning from complexity by connecting one element to another element. Over time, relations among elements are embedded in the accumulation of shared meanings. From this, Luhmann builds upon a science of operations (i.e., operative constructivism) to a theory of communication.

Luhmann's concept of communication, as with many other concepts in his work, is consistent with a general understanding of the term but acquires specific meaning in relation to a theory of self-referential systems. For Luhmann, communication consists of three elements: information, utterance, and understanding. Information is a selection from a (known or unknown) repertoire of possibilities. Utterance is a selection from a repertoire of intentional acts. Understanding is the observation of the distinction between utterance and information. This three-part concept of communication rules out the metaphor of sending and receiving information with selective attention on both sides. Communication is about selectivity and the further communications that selectivity attracts.

By making the act of communication (utterance) a selection in itself, communication becomes a necessary part of the self-referential process of selectivity and the emergence of social order. In this way, the difference between information and utterance is critical to the selectivity of communication. Communication comes about only because ego¹¹ distinguishes the selection of information and selection of utterance as separate acts and can indicate the difference. “The difference lies basically in the observation of alter by ego. Ego is in a position to distinguish the utterance and appropriate it, develop it, exploit it, and use it (more or less successfully) to steer the communication process” (Luhmann 1995a:143).

The inclusion of understanding is what makes communication communication. A book that is not read, for example, is as lost for communication as an email message accidentally erased from a computer before it is read.¹² Understanding has far-reaching significance for comprehending the possibility of communication only as a self-referential process. The ability to use understanding to increase the probability of understanding is a way to deal with double contingency. Questioning, denial, and correction, for example, are part of recursive elaboration and adaptation to future events (Bailey 1994). “When one communicative action follows another, it tests whether the preceding communication was understood. However surprising the connecting communication may turn out to be, it is also used to indicate and to observe how it rests on an understanding of the preceding communication” (Luhmann 1995a:143). This test

¹¹ The terminology adopted when referring to self-referential systems, following Luhmann, is to refer to ‘ego,’ ‘alter,’ and ‘alter ego.’ For instance, in relation to communication, ‘ego’ refers the addressee and ‘alter’ refers to the addresser. One reason for the terminology is to accommodate both psychic systems and social systems participating in meaning-constituted systems without implying individuals, subjects, etc. As Luhmann explains, the concepts of ego and alter can refer to either psychic or social systems.

¹² This analogy was adapted from Knodt (1995).

of understanding may take the form of a direct question, “Who said that?” Or the test remains latent, carried forward as an assumption that the previous statement was understood, while leaving the assumption open as a test of understanding. The connective capacity of understanding is based on the ability to use it recursively so that one can expect to be understood. Understanding, however, is not the purpose of social systems (Knodt 1995). Like any autopoietic system, communication is concerned with its own self-reproduction. Any sense of purpose of a system is displaced by contingency.

Given the problem of double contingency, the possibility of communication is improbable. “In accordance with the ‘order from noise principle,’ systems theory starts from the assumption that communication is contingent – neither impossible nor necessary – and subsequently seeks to identify conditions under which the improbable becomes probable” (Knodt 1995:xxviii). Communicative events, therefore, must be considered as structural conditions of selectivity enforced by complexity. Which is to say that communicative selection produces emergent order: it transforms an improbable order into a probable (functional) one.

Communication about communications is a case of basal self-reference. Otherwise, communication would never take place. Communication, and only communication, is the elementary unit of social systems because “[o]nly communication is necessarily and inherently social” (Luhmann 1986:177). This ‘post humanist’ conception of social stands in contrast to action theories or to theories based on symbolic interaction. Action is not social nor is it the elemental unit of society. In self-referential systems, action is a part of the communicative process. This relationship between

communication and action requires further clarification if one is to accept the possibility of a society of self-referential (social) systems.

Action and communication cannot be separated; action is constituted in communication. As Knodt (1995) explains, in order to observe itself, communication must simplify the complexity of its selective operations. The reduction in complexity is achieved by further selections based on the conventions of attribution, e.g., people communicate. “From a functionalist perspective, the notion that ‘people communicate’ is a mere convention, reflected in the subject-predicate structure of a language that, by attributing events to agents in the form of actions, enforces the habitual perception that the world consists of ‘things’ and their characteristics” (Knodt 1995:xxx). Thus, the process of communication must be reduced to action, decomposed into actions, in order to steer itself. But social systems are not constituted by actions, as if these actions exist by themselves. Instead, actions are an indispensable outcome of communicative events. The possibility of attribution “makes it possible to selectively organise accompanying self-reference, in the sense that one can handle *communication* (e.g., arguments, repeated questions, contradictions) reflexively only if one can determine who has *acted* communicatively” (Luhmann 1995a:175). Communication, in its fullest sense, is a synthesis of selections and the possibility of attributing the selections as actions.

Social structure and semantics

The function to be performed by any communicative act is to reduce complexity, to select from among a number of different possibilities. The more complex the world turns out to be, the ability to communicate becomes more improbable. What people need is a way to

structure expectations to make it possible for selections made by one person to be relevant to another. In other words, the connectivity of communicative events, as the elements of social systems¹³, requires structure to both guide and constrain human abilities to make sense of an experiential world.

Structures include, but are not limited to, norms, values, expectations, and roles to the extent that each holds ready forms of meaning. In self-referential systems “everything that takes place occurs as a selection and thereby operates to form structure when and insofar as *other selections admit this structure*” (Luhmann 1995a:134). Structure, therefore, relates to the kind of uncertainty reduced in self-referential processing. An example is the self-made rules of accounting (*cf* p. 59). Structure is not to be understood as relations between elements because when elements disappear so does the structure. Structure, by necessity, is conceived only as an emergent order that is dynamic and constantly changing. Structure arises within social systems out of anticipations of anticipations. Anticipating what ego might understand leads to other anticipations; and the same goes for alter. Anticipations of anticipations form expectations, which acquire structural value for connecting meaning through time and by excluding other possibilities. Every expectation contributes to the process of making sense of complexity (the necessity of choosing). Structure, therefore, “is no productive factor, no underlying cause, but merely the constraint on the quality and connectability of the elements” (Luhmann 1995a:283). As such, structure is presupposed in the constitution of self-referential systems.

¹³ Communicative events are the elemental units of social systems. “Whatever functions as a unit becomes a unit by the unity of the self-referential system. It is a unit neither by its own unity nor by an observer’s mode of selection, neither objectively nor subjectively; it is the referential aspect of the system’s mode of binding itself together, which is reproduced by this binding” (Luhmann 1995a:175).

The relationship between social structures and semantics has been mentioned only in passing thus far. In fact, structure and semantics are closely related. Semantics, in a general sense of the term, is about the meanings of words people use; it is a supply of themes for the purposes of communication (Luhmann 1995). This understanding of semantics applies to a systems-theoretical framework so long as 'meaning' is understood as the condition of and the means by which selections can be made.

A difference between semantics and social structure can be expressed in terms of first- and second-order observations. At a first-order level, we observe semantics as expectations of meanings of words people use. At a second-order level, we observe how the selection of semantics connects to other semantics. The latter describes social structure. In other words, structure is a second-order observation of semantics: semantics is expectations of meaning; structures are expectations of expectations of meaning. It is in this sense that I refer to social structures as differentiated semantic devices.

Media, Symbols, Codes, Programs

Further development of the relationship between semantics and social structure leads from a general discussion about communication to an important understanding of how social systems develop capacity to deal with complexity. The following discussion is about media: the evolutionary achievements of society to make the improbable probable. Luhmann (1995:160-162) defines three types of media: language, media of dissemination, and symbolically generalised communication media. Language is a medium beyond perception that makes use of signs to increase understandability. Media

of dissemination (e.g., writing, printing, television, Internet) extend the possibility of communication through standardisation. Symbolically generalised media use generalisations to symbolise the nexus of selection and motivation, wherein motivation relates to getting another to accept one's communication. Generalisations make it possible to share meaning with different people in different situations, which in turn allows people to come to the same or similar conclusions. I will explore this third type of media in more detail within the context of semantics and social structures. Media, in this third sense of the term does not refer to newspapers or television, but to communicative devices that assure the successful transmission of selections using semantic devices.

The use of symbolically generalised media increases the probability that one's selection will be accepted because each symbolic medium has the particular quality of setting out the rules for the use of the medium (Beyer 1984). If one follows the rules of the code, the communication should be successful. Truth, money, love, and power have evolved 'successfully' in this regard (Luhmann 1995). Beyer gives the following examples: he sees it this way because it is true; he does this because he loves her; she accepts what he does with that object because he bought it and therefore owns it; he does as the judge tells him because of the power vested in her.

Symbolically generalised media are integral to societal capacity to process meaning. They provide media additional to everyday language. Symbols, programs, and codes are examples of differentiated semantic devices (=social structures) with different forms of connectivity that increase the societal capacity for communication. Symbols are a functional equivalent of similarity; they are "connections between the complexity of the world on one hand and the socially regulated processes for differentiating and connecting

multiple selections on the other” (Luhmann 1979:48). Symbolic media achieve simplification by anticipating what is possible, by stabilising possibility. This both facilitates communication and acts as a catalyst for communication.

Codes can be distinguished from symbols by using the concept of structural coupling. Structural coupling refers to the relation between system and environment or, equivalently, to the relation between the marked side of a distinction and the unmarked side. This relation can be either loose or tight (or any point in between). In loose structural couplings, the marked side of the distinction relates to a wide set of possibilities on the unmarked side or, perhaps the unmarked side is left undefined. For example, a person may use the word love to express meaning but use it in an imprecise way. Symbols are loose structural couplings. In contrast, codes are tight structural couplings that constrain possibilities between the marked and unmarked sides of a distinction, thereby increasing connectivity. “The capacity of code to facilitate selection resides in its binary schematic” (Luhmann 1979:134-5). The two-value binary code of true/false is an example of tight coupling.

A binary code is an important evolutionary feature of system formation. The emergence of a binary code is a pre-condition of system reference. A code permits systems to determine what is information in their environment, i.e., systems structure their communication through a binary code (Luhmann 1989). For example, the law system is structured according to the binary code legal/illegal. The economic system is coded as pay/not pay. In science, the code is true/false.

Codes do not operate in isolation; they are mediated by further conditions called programs. Programs, such as theories, laws, investments or party-political alignments,

operationalise and regulate codes. They are the criteria that determine what is and what is not a code-specific difference (Luhmann 1989). For example, if we take ‘true’ and ‘false’ as a binary code, we can see that true cannot be applied to determine what is true. The reasoning is tautological. Criteria must be available to process the difference between true and false. Programs are these criteria. In science, for example, theories are employed as programs to process the difference between true and false. In this way, programs co-ordinate system operations with regard to both sides of the binary code – “without ever raising the question of the unity of the code itself” (Luhmann 1989:37). Furthermore, coding and programming make the simultaneous closure and openness of a system possible (Luhmann 1989:40). A system is closed because it can only operate according to its code. Simultaneously, a system’s programming is open to external forces and accommodates conditions under which codes, like true and false, may be determined.

Differentiation of society¹⁴

As society and the possible worlds it can construct become more complex, the demands on media of communication become greater. It is the function of semantics and social structures of communication to condition selectivity (via connectivity). Which is to say that semantics is not only influenced by societal differentiation but also that semantic evolution is part of society’s self-organising processes of combining selectivity and connectivity. The aim of discussing the differentiation of society is to situate this inquiry into the meaning of community within a general theory of society.

¹⁴ Luhmann discusses the differentiation of society in several publications (for example: Luhmann 1971, 1982, 1986, 1995a, 2000a) spanning over thirty years. The following draws from these sources, as well as from Beyer (1984:xxvii-xxxiii), who summarises Luhmann’s theory of societal differentiation.

The discussion about symbols, codes, and programs is about differentiation at the level of semantics. Differentiation also takes place at other levels (wherein the level of observation is a construct of the observer), but always, at whatever level of analysis, differentiation allows for more connective possibilities by increasing its selective capacity to deal with complexity. The perspective adopted for this dissertation is to observe the co-evolution of semantics and social structures at a macro-level of societal evolution, i.e., the differentiation of society itself. Before proceeding with the discussion, a self-referential concept of evolution must be distinguished from traditional theories of social evolution. In particular, I wish to set aside conceptions of evolution as a linear process of improvement often conveyed in the semantics of ‘progress.’

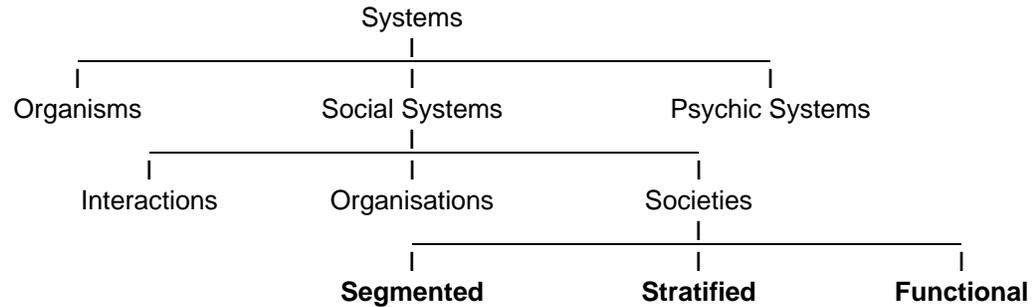
As Cohen argues (1985:21-28), social theorists writing in the late-nineteenth century adopted the idea that social ‘organisms,’ like biological organisms, become increasingly refined and well-adapted to changes in their environment such as industrialisation and urbanisation. From this basis, Cohen continues, typologies such as community-society and rural-urban are formulated and subsequently developed as theories of social change and development. Implied in these theories are notions of inevitability, causality, and determinism.

In contrast, an evolutionary process of societal differentiation is premised upon complexity and contingency. Differentiation is an outcome of societal capacity to process meaning, i.e., to reduce complexity by increasing semantic connectivity. Communication increases capacity to handle complexity by differentiating the connectivity of semantics, and the differentiation of semantics leads to the rise of systems. Systems, however, are contingent: they are neither necessary nor impossible.

Evolution, therefore, must not be seen as guaranteeing “either the selection of the best of all possible worlds nor ‘progress’” (Luhmann 1989:108), wherein progress implies improvement. Systems progress but only in the sense of moving forward without purpose. Systems, as argued previously, are purposeless. Furthermore, societal evolution does not imply an orderly process. Emergent order is produced by communicative selection by transforming an improbable order into a probable one. Self-organisation means that evolution creates its own conditions as it progresses and comes to a halt when and as long as it does not succeed (Luhmann 1989). Even the possibility of being ‘wrong’ can never be negated. “Everything negated in an act of selection is negated only provisionally because this act can be negated and the initially negated possibilities re-actualised” (Bednarz 1988:6). Negation, as a reflexive process, can be applied to itself, thus reproducing communicative selections as part of an evolutionary societal process of differentiation.

A systems-theoretical understanding of societal evolution sets a context for observing the co-evolution of semantics and social structures. According to Luhmann, societal evolution can be described via three primary forms of differentiation: segmented (e.g., tribes, households, settlements); stratified (e.g., nobility and peasants); and, functional (e.g., law, politics, economy) (see Figure 2). Historically, and from a systems-theoretical understanding, each of these distinct forms of differentiation dominated society at different times: segmented societies preceded stratified societies, which preceded functional societies. Modern society is a functionally differentiated society. Thus, the following discussion accounts for the possibility of modern society.

Figure 2. Conceptual schema of societal systems.



The relationship between societal differentiation and self-descriptions is an important aspect of understanding the co-evolutionary relationship of semantics and social structures. As part of societal differentiation systems employ self-descriptions. A self-description is a description of a system by a system as an attempt to understand itself, that is, as a self-ordering process of making sense of a social world. In each form of societal differentiation a self-description is related to the dominant societal structure. “In simple segmentary societies, self-descriptions were rather unproblematic” (Luhmann 1988b:26). Social order was more probable because the level of semantic complexity could be kept fairly low. Theoretically, we view segmented societies as organised around very small units of primarily face-to-face interaction and knowledge of the surrounding geographical space. “Myths and cult forms could be brought into harmony with environmental conditions, structures, and interests without this process becoming visible as a contingent decision” (Luhmann 1988b:26). Within a stratified society the upper class or centre uses a hierarchical self-description in terms of rank order to bind a social order based on inequality. Societal self-descriptions were phrased in the semantics of their time, for example, as *polis-civitas-civilitas-societas civilis* in Greece (Luhmann 1988b). In functional systems, there is no single binding representation or controlling

centre. Each system functions according to its own self-description, i.e., by the system's organisationally closed experience of its world.

As the social world becomes more complex, society moves further from a connectedness with its immediate surroundings (Luhmann 1988b). The semantics of self-descriptions mirror this form of change. The notion of (dis)connectedness can be understood in terms of system-to-system relations. These relations are described as being either equal or unequal. Segmentary differentiation divides society into many equal systems organised around small units (e.g., tribes, households, settlements). 'Simple' or 'primitive' societies can be observed as constituted primarily by segmentary differentiation. Equality among segmentary systems is predicated on a fact of equal probability of emergence; no system is privileged over another. Any advantage of one system over another (e.g., fertility of land, technology) is a matter of chance and does not depend on the structure of society (Beyer 1984:xxviii). Segmentary societies are also characterised by relatively little interaction among segmented systems, although not necessarily total isolation. As such, the destruction of one system does not lead necessarily to the destruction of other systems. The equality of and relatively little interaction among segmentary systems mean that the boundary of a segmented system (=system/environment distinction) is easier to maintain in segmentary societies. As such, small societal units condition a low level of complexity. A single binding representation of society within each segmented society is possible and persists for that society.

Communicative complexity increases when societal organisation is based more on asymmetries and inequalities, like that of a stratified society. Stratified differentiation divides society internally on the basis of inequality among systems. Inequality is seen to

arise as a condition of size and complexity. When equal interaction among all members is not possible, division into groups of equals (e.g., peasants or lords), allows for greater differentiation of roles (Beyer 1984). But such structural differentiation must correspond to semantic evolution. The corresponding semantic evolution can be observed in the expansion of communicative possibilities such as printing. Print media makes possible successful communication even in non-face-to-face communication (Beyer 1984). The rise of symbolically generalised media of communication (e.g., love, money, power) also increases the possibilities of communication across a greater number of situations. As the improbability of social order becomes apparent it requires explication (Luhmann 1988b:26). Thus, the central or controlling group comes to represent social order; this group both defines the self-description of society and binds society to this self-description.

As communicative capacities for dealing with complexity continue to evolve, new systems emerge. Over time, new system-to-system relations also emerge. Functional differentiation of society, which describes a society organised according to functions (e.g., law, economy, politics, science), is based on both equality and inequality. Theoretically, systems are unequal since each system fulfills a different function. Systems are equal since there is equal access to each function. The condition of equality among systems also implies that there is no longer a single binding representation of society within society. Each function system constructs (and can only construct) society according to its own form of organisation (e.g., to pay/not pay or legal/illegal). Generally, as societal inequalities increase, semantic complexity also increases, and society's self-descriptions become more abstract. Consequently, the probability of a binding social order decreases.

To understand why functional systems dominate communications of modern society is also to understand societal capacity to process meaning (i.e., to reduce complexity). Luhmann suggests several factors related to the co-evolution of semantics and societal differentiation. Codes that cover and combine a multiplicity of functions are more likely to attract people's attention (Luhmann 1979:142). Similarly, the more that codes are technical and abstract, "the richer the multiplicity of the (internal) operations with which the system can operate as closed and open at the same time, i.e., to react to internal and external conditions" (Luhmann 1989:40). In other words, regardless of the code, the easier it is to cross from one side of the distinction to the other, the greater the connective capacity of the code. It is easier, for example, to observe the difference between pay and not pay than it is to observe the difference between true and false. The former can be observed via the exchange of money; the latter must be observed via concepts, theories, methodologies, and philosophies.

Systemness: semantics and social structures

A systems-theoretical understanding of societal differentiation completes the framework I will use to inquire into the meaning of community. As a way to summarise what has been discussed, I will formulate the framework in methodological terms.

In a simple way of conceiving the research problem, the task is to observe where community 'fits' in a schema of social systems (Figure 2, above). But it must be emphasised that the schema is an analytical tool that frames discussion and guides inquiry. The types of systems help to distinguish among possibilities by highlighting significant evolutionary capacities to deal with complexity. When dealing with self-

referential systems one is always dealing with contingency and, in the final analysis, the paradox of self-reference. Thus, since the schema, in its two-dimensional representation, necessarily excludes the features of self-reference, selectivity, and contingency, the schema of social systems is less important than the theory.

The schema, therefore, must be viewed as providing guiding differences, not defining categories. It is a conceptual schema that over-states distinctions among types. In other words, there are many grey areas. Identifying types upon which the categories are based (e.g., contrasting primitive society with modern society; economy with law) is easier than pinpointing the emergence of a particular system. Likewise, it is difficult to know when a self-description becomes generalised as a symbol and when a symbol becomes a code.

To avoid the inherent problem of categories at the outset, the research problem is framed methodologically as an issue of 'systemness.' A fundamental issue carried through this chapter centres upon the indeterminate complexity of self-reference. A number of concepts have been introduced in order to deal precisely with the paradox of self-reference. Namely, operation, observation, distinction, and self-description are necessary to understand the semantic and structural differentiation of modern society. The issue at hand is a matter of selectivity and connectivity: how some-thing emerges from no-thing. Systemness concerns the selectivity and connectivity of the semantics and social structures of society; it is about system formation, function, and evolution, and about coding, programming, and media.

A necessary assumption underpinning an analysis of the emergence of social systems is that semantics, of community in this case, is not arbitrary, but rather represents

reactions to the respective society and the trends for change within it (Luhmann 1986, 2000a, 2000b). Observing how the semantics of community emerge, persist, and change in relation to societal evolution (and vice versa) requires examining modern society's communicative capacity to deal with complexity. Theoretically, the guiding premise is that the dominant semantics of a given period becomes plausible only by virtue of its compatibility with its social structure (Luhmann 1986). In this regard, I follow Luhmann's studies of love (Luhmann 1986), art (Luhmann 2000a), and mass media (Luhmann 2000b). Pragmatically, observations of the semantics of community focus upon the pragmatic effects of communication as a process of coordinating how people and groups negotiate similarities and differences.

The semantics of community will be examined in relation to structural conditions of selectivity enforced by complexity. As a problem of enforced complexity, I am no longer interested in the identity of community (e.g., What is community?). Such an ontological predilection, as the various approaches of community studies illustrate, objectifies community as a distinction between individuals and society. This is particularly evident when ideal types, such as Tönnies' *Gemeinschaft und Gesellschaft* typology (commonly translated as 'community and society'¹⁵), are re-constructed as theories of social change and development. In these re-constructions the identities of 'community' and 'society' over-emphasise ontologies, and become mere descriptions (Cohen 1985). Rather than focus on identity, I am interested in the relation between community *and* society (and individuals). That is, I am concerned with the functional

¹⁵ There is much debate about whether *Gemeinschaft* and *Gesellschaft* were accurately translated as community and society (Bakker and Winson 1993). Nevertheless, Tönnies' work is considered to be the start of community studies. It is important to realise that the semantics of community do not necessarily transcend linguistic boundaries. Thus, although *Gemeinschaft* and *Gesellschaft* were translated into English, I would not extend this analysis to a study of *Gemeinschaft* in German.

relation denoted by ‘and.’ In systems-theoretical terms, this functional relation denoted by ‘and’ can be expressed as a set of questions. Does community refer (only) to semantic self-descriptions of society? Can we also observe the semantics of community as operations of a self-referential community system? If the latter: What are the function, code, and programs of a community system? In Chapter 4, in response to the first question, I focus upon observations of community as a self-description of society. In Chapter 5, I observe self-organising processes within the semantics of community. In Chapter 6, I explore the possibility of observing community as a self-referential system.

4. OBSERVATIONS OF COMMUNITY: SELF-DESCRIPTION

A difficulty of working with Luhmann's systems theory is that relations among concepts are not always explicit, although this may be a limitation of the breadth of his work available in English. In the discussion of evolution it is not always clear how the evolutionary process progresses in a step-wise fashion, if this is possible at all. It is possible, on the other hand, to identify and isolate aspects of the process. For example, it is clear in Luhmann's writing that symbolically generalised media of communication are essential for system formation, but is not clear what precedes symbolically generalised media of communication. In his analysis of different social systems, Luhmann refers to values, which appear to have more connective capacity than self-descriptions but less connective capacity than symbolically generalised media of communication. In the following effort to observe evolving capacities of connectivity within the semantics of community, it is proposed that self-descriptions refer to emerging identity, values refer to emerging stability, and symbolically generalised media of communication refer to emerging systems. This proposition does not preclude other possibilities; rather it attempts to describe one set of evolutionary probabilities. My intent is to organise observations of community within the bounds of writing a dissertation. To begin, I will observe the semantics of community as self-descriptions of modern society.

A system, to be self-constituted as a difference from its environment, must be able to observe itself and describe itself. A self-description is a description of a system by a system. It is part of a system's recursive processing of meaning that generates and preserves identity. Whereas self-observation is an operation of a system, self-description is the semantic outcome of self-observation. Which is to say that one cannot have a self-

description without self-observation. Self-description, therefore, is not one person's description of a system but a necessary product of self-referential social systems. It allows the relation between system and environment to be re-introduced into the system. In this way, a self-description constitutes a basal form of connectivity.

In functional systems, each system functions according to its own self-description, by the system's organisationally closed experience of the world. At a first-order level of observation, each system is 'blind' to its own self-descriptions. The system is what it is; the object of observation, including itself, appears as given. It is only at a second-order level of observation that another observer can see that such a description is a self-description of an observing system. Rather than take community as a given object of social order situated between individuals and society, we can observe how the normal science of rural studies employs the semantics of community as part of a self-ordering process of making sense of the social world. In this context I ask: What is the relation between the semantics of community and self-descriptions of modern society? In other words, what is the function of 'community' in a modern understanding of society?

Community as a self-description of modern society

Williams, in his *Keywords: A Vocabulary of Culture and Society* (1985), provides a historico-cultural analysis that reveals complex interrelations between structural differentiation and the semantics of community. As Williams explains, the complexity of the semantics of concepts is to be found "not only in its variable processes and their social definitions – traditions, institutions, and formations – but also in the dynamic

interrelations, at every point in the process, of historically varied and variable elements” (Williams 1977:121).

Williams identifies three stages of development: “dominant,” “residual,” and “emergent.” “Residual” refers to meanings formed in the past but is still active within the dominant cultural process. “Thus certain experiences, meanings, and values which cannot be expressed or substantially verified in terms of the dominant culture, are nevertheless lived and practised on the basis of the residue – cultural as well as social – of some previous social and cultural institution or formation” (Williams 1977:122). “Emergent” refers to the creation of new meanings, although it is “exceptionally difficult” to distinguish between new elements of the dominant culture and emergent meanings that arise in opposition to it, as will be illustrated below in the discussion of ‘individual,’ ‘society,’ and, ‘community.’ The residual and the emergent can only be made in relation to the dominant. The emergent and residual, however, are significant in what they reveal of the characteristics of the dominant. Finally, no dominant practice ever includes or exhausts all human practices.

In systems-theoretical terms, Williams’s dominant, residual, and emergent stages of concept development are the testing and stabilising of self-descriptions. Self-descriptions are available for selection and can be tested as part of an evolutionary process of ideas. Likewise, self-descriptions can also be stabilised by tradition. “As a result, societies might adhere to traditions of self-descriptions that have lost their adequacy with respect to the structural complexity of the system but that cannot be abandoned since self-descriptions perform important systemic functions” (Luhmann 1988b:26). Some self-descriptions persist while others become obsolete.

Following Williams, it is necessary to examine the semantics of community not only by its dominant uses. Most importantly, Williams's approach shows that community is to be understood as a modern Western English-speaking term that has changed and will likely keep changing. That is, community has not always meant the same thing to all people; there have been movements from one semantics of community to another, from one "dominant" understanding to another.

Within a broader understanding of societal differentiation, the semantics of community can be examined alongside the related semantic developments of 'individual' and 'society.' The dynamic relationship among community, individual, and society lends insight to the normal understanding of community. As will be discussed, as the concept of individual assumes its modern meaning in the eighteenth century, society simultaneously becomes general and abstract. This paves the way for community, as a self-description of societal relations, to fill semantic gaps.

Individual

The modern sense of the individual is a result of scientific, political, and economic thought (Williams 1985:161-65). Originally, according to Williams, individual meant indivisible, as derived from *individuus*. In the sixth century, individual referred to (i) that which cannot be divided at all, such as unity or spirit; (ii) that which cannot be divided because of its hardness, such as steel; and (iii) that which is specifically designated as not applicable to anything of the same kind. The development of the modern meaning of individual from these original meanings can be traced through seventeenth century logic

and eighteenth century biology. Through this period individual usually referred to a single example with explicit relation to the group of which it belonged.

However, by late eighteenth century, the sense of “an individual” was overtaken by “the individual” as a “fundamental order of being” from which other categories and especially collective categories were derived (Williams 1985:163). By early nineteenth century a distinction emerges between individuality and individualism. Individuality is a qualitative category of uniqueness; individualism corresponds to a movement of liberal political and economic thought.

Society

In the modern period, ‘society’ refers to the (a) generalisation of large social organisation and (b) to large social organisation as an abstraction (Williams 1985). That is, (a) society is a general term for the body of institutions and relationships within which a relatively large group of people live. And (b), society is the most abstract term for the condition in which institutions and relationships are formed. It is only because society has attained both a general and abstract sense that one can refer to institutions and relationships.

Society, however, was not always general and abstract. Up until the eighteenth century society meant the immediate sense of active companionship of one’s fellows. Williams explains how society becomes both more general and more abstract through a complex transition. Among other modern developments, the transition to the general and abstract sense of society is associated with the development of state as distinct from society. State had developed from its most general sense to an organisation of power; whereas society referred to an association of ‘free’ human beings (Williams 1985).

“Through many subsequent political changes this kind of distinction has persisted: society is that to which we all belong, even if it is also very general and impersonal” (Williams 1985:293). By the nineteenth century, society can be seen as the objective sum of human relationships. Henceforth, it was possible to distinguish between individuals and society. And, as will be explored next, the interdependence of individual and society is fundamental to understanding the semantic evolution of community.

Community

Community, as Williams (1985:75-76) explains, has a varied etymology. The Latin root of community is *communis*, which means ‘common.’ Community is also associated with the Latin word *communitas*, denoting a particular quality of relationship. The word derives most recently from the Old French word *communete*. Community has been in the English language since the fourteenth century, and has become established since in a range of senses, as Williams identifies:

- i. the commons or common people, as distinguished from those of rank (fourteenth to seventeenth century);
- ii. a state or organised society, in its later uses relatively small (fourteenth century onwards);
- iii. the people of a district (eighteenth century onwards);
- iv. the quality of holding something in common, as in community of interests, community of goods (sixteenth century onwards);
- v. a sense of common identity and characteristics (sixteenth century onwards).

Williams notes that the five meanings of community indicate actual social groups (i, ii, and iii) and a particular quality of relationship (iv and v). The difference between community as an actual group (the community) and as a quality of relationship (community) resonates through much of the literature of community (see, for example, Bernard 1973).

It is during the early period of modern development (circa eighteenth century) when the semantics of community most clearly change. Most notably, during this period the meaning of community became associated with companionship, a meaning formerly associated with society. Society used to refer to face-to-face relationships, hence the residual association of the word 'society' with voluntary organisations (e.g., horticultural society). However, the distinction of community as more immediate than society became especially important from the nineteenth century onwards. Presently, face-to-face relationships are part of the dominant semantics of community.

Self-description of what society is not

A historico-cultural analysis of the semantic development of community, in conjunction with a systems-theoretical perspective, emphasises the modern, English-speaking Western context within which community must be understood. The semantics of 'individual' and 'society' co-evolve with societal structures. The concept of 'individual' emerges from a dynamic process as an abstract noun representing a fundamental order from which the collective is derived. Society becomes an abstract and general object of human relations. The concept of community evolves from 'common' to fill gaps created by the shifting semantics of individual and society. Namely, community emerges to refer to immediate human relations (or lack thereof).

As a new form of society takes shape it looks for new self-descriptions that help society make sense of its internal environment. Thus, the emergence of community is structurally conditioned by the early stages of modern development and its corresponding semantics of individual and society. While self-descriptions of social relations changed, semantics of community developed to accommodate new demands for expressing social relations influenced by individuality, new forms of public, private, and intimate relations and, more generally, of expressing the relationship between individuals and society.

Schechter (2002) expands upon the idea that community is a self-description of society. In an increasingly complex society, Schechter argues, community has the advantage of simplification. On the one hand, community is a semantic description of something that people have difficulty naming, yet provides a distinction that enables people to communicate about and act on issues which we could otherwise not do. On the other hand, community is a term of choice for its normative sense of connectedness. It is “a contemporary self-description which different people use to indicate their reference point for belonging” (Schechter 2002:2). Given unbounded possibilities of using community as a self-description, Schechter argues that a discussion about its explicit meaning is not helpful. “If, however, we understand community as a distinction, we then ourselves have to distinguish the context in which it serves as a distinction” (Schechter 2002:2).

To understand community as a self-description is to understand that the use of community as a distinction is always a matter of system reference. Thus, as second-order observation requires, the mandate is to observe the observer. The task of second-order observation is to understand what distinction is constituted by the use of community. In

other words, in order to figure out what community refers to we need to explore what community does not refer to, the unmarked side of the distinction.

The emergence of modern English-speaking Western society (hereafter referred to only as ‘modern society’¹⁶) demanded new self-descriptions when the system was unable to experience and describe itself adequately in this stage of transition. The early period of modern development describes a particular kind of system-to-system relationship, a time when the incompatibility of functional systems was becoming apparent (e.g., the separation of the state, economy, politics, and religion). Such structural changes, as argued above, affected the semantics society used to describe itself.

Against this background we can gain new insights to the significance of the community distinction as a two-sided form. The community distinction is anchored in the internal side of the distinction but it refers to the *external* side; the ‘inside’ is elaborated as a counter-concept to the ‘outside.’ Rather than describe what modern society is, community more often refers to what modern is not. In other words, community is a self-description of *negativity* – of what society is missing.

As the semantics of individual and an abstract society displaced previously privileged concepts of order, describing what society is not became increasingly important. Likewise, as the companionship associated with face-to-face relationships is increasingly displaced, the distinction of community as more immediate than society became especially important. In the factual dimension of meaning (=this and not that), the gap represents not necessarily what relations exist, as it represents what relations are missing. With regard to the temporal dimension of meaning, the semantics of community

¹⁶ The restricted understanding of modern society to English-speaking Western society reflects the semantic feature of community as an English word.

provides a link to the past as a reference to nostalgia, feeding off the traditional notion that simplicity was a legitimate property of society. As a link to the future, community functioned as a reference to utopia. As will be discussed shortly, such semantics of community is prevalent in typological theories of community.

Twentieth century semantics of community

In the twentieth century, the dynamics of the semantics of community signal that new problems have arisen (Schechter 2002). Generally, over the past one hundred years we see that the concept of community has been lost, found, and saved amid waves of optimism and pessimism that have accompanied industrialisation, urbanisation, and suburbanisation. Community is 'lost' in the pursuit of globalisation, 'saved' in the virtual world of the Internet, and 'found' in concepts of social capital, civil society, community economic development, community capacity building, community empowerment, healthy communities, and sustainable communities. Other uses include communities of practice (Wenger 1999) and virtual communities (Driskell and Lyon 2002). Community is used to describe different scales of human organisation, including local communities such as towns, villages, regions, neighbourhoods, nations, as well as business communities, academic communities, political communities, and a world community.

Examples of how 'community' was recently 'found' in Japan by urban planners and local activists show how the semantics of community emerges in response to new societal problems of the twentieth century.¹⁷ By contrast, the Japanese situation emphasises the Western English semantics of community. There is no word in the

¹⁷ These observations of the use of community in Japan are based on discussions with Tsutomu Nishimura and Sugumi Tanaka, two students in the Rural Planning and Development Master Program at the University of Guelph who are from Japan. The discussions took place August 8, 2002.

Japanese language that is similar to the English concept of community as a settlement characterised by immediate face-to-face relations. After fifty years of Western influence, Japanese planners have found that in new, urban residential developments, people associate less with their neighbours. To counter this trend, planners have adopted principles of new urbanism – and the word ‘community’ is being used (as a direct translation) to describe this new urbanism. Community is used as a planning principle but, in effect, community refers to what is missing in urban Japan. Activists in Japan who argue against impersonal large-scale retail development also invoke the semantics of community. Rural Japan presents a different situation. At present, ‘community’ is not used. However, traditional forms of settlement (*shuraku*) are undergoing significant transformation as a generation of families considers leaving their ancestral lands.¹⁸ Perhaps, if this transformation leads to significant societal change, rural Japanese will also look to the semantics of community as a form of self-description of what has gone missing. These rural and urban Japanese examples illustrate how the semantics of community can be observed as emerging self-descriptions of society and how these self-descriptions refer to what is missing.

The rise of a community theory literature can be seen as part of stabilising the semantics of community as self-descriptions of society. Generally, as Wilkinson (1991:1) describes, the first half of the twentieth century established the tradition of community ethnographies (e.g., Chicago School). By the 1960s, this tradition was displaced by comparative organisation, and in the 1970s, to the study of phenomena in local societies.

¹⁸ These observations are based on my conversations with researchers from Japan as part of a comparative Canada-Japan project looking at the revitalisation of rural areas in each country. More information about this project is available at: <http://www.cerf.ca/>

The original theory of community has been attributed to Tönnies' *Gemeinschaft* and *Gesellschaft* typology (Dasgupta 1996; Bell and Newby 1972). His typology sets the stage for further typologies that are constructs of essential qualities used for "comparison and contrast with its polar opposite" (Dasgupta 1996:68). In one form or another, typologies refer to the changes that took place in the nature of human relationships (Bernard 1973). Redfield's (1960) aim, for example, is to develop a systematic way to view and understand human life that allows researchers to characterise and compare forms of social organisation as a whole. Generally, when typologies are constructed as theories of social change and development, they make use of the semantics of community to refer to a pre-modern state, i.e., something that modern society is not. In systems-theoretical terms, typologies are based on distinctions in which the semantics of community assumes socio-structural qualities that guide observations of society.

The field of community psychology provides another perspective of how the semantics of community is organised and regulated within science. In the 1960s, community psychology theoretically formulated a distinction between 'community' and 'psychological sense of community.' The distinction marks a significant development within the semantics of community for it privileges the perception of community at the level of the individual. Sarason (1974) explains that community psychology attempts to bridge the 'individual' and 'the environment.' As a psychologist seeks to understand a person in the context of family, the community psychologist seeks to understand the person in a wider context in which the family is embedded. Such concerns gain importance during a period of increasing discomfort about personal stability and safety.

Community psychologists generally see 'community' as a positive, meaningful entity in the ordering of people's lives (Sarason 1974).

The community psychologists Rapley and Pretty (1999) argue that the semantics of community is highly particular and localised and that the meaning of 'community' is essentially a negotiated product. On these grounds, Rapley and Pretty caution other community psychologists about the generalisability of the semantics of community. At the same time, Rapley and Pretty's idea that the meaning of community is a negotiated product illustrates the connective capacity of community as a self-description of society.

A brief look at the debate about the 'loss of community' provides a final reflection upon the academic contribution to organising and regulating the semantics of community as self-descriptions. This debate reflects another aspect of how, in Schechter's terms, the semantics of community signals to society that a new problem has arisen. The debate about the relevance of community in modern society gained attention in the mid-twentieth century. Stein (1960) argues that community was eclipsed by suburbanisation. Krannich and Greider (1990:61) suggest that "there were few if any remnants of the type of traditional social relations which when interwoven comprise community." At the same time, community also described "an arena for immediate expression of the fundamental human disposition toward association" (Wilkinson 1979:8). And, pragmatically, community refers to the fact that people still live next door to others (Bernard 1973). The divergent responses lead to confusion between what is and what researchers think community should be (Bell and Newby 1972).

The 'loss of community' not only signals a new problem within society but also a development in the semantics of community. The use of community as a distinction to

indicate negativity (the unmarked space indicating what society is not) is, on the one hand, losing relevance and, on the other hand, points to the search for what is indicated on the 'inside' of the marked space. There is confusion as to whether community, as a self-description of society, refers to the inside (self-reference) or the outside (hetero-reference) of the distinction. Within academia, for some, the issue remains unresolved. The semantics of community serves as mediator within an on-going debate about what society is and what society is not.

Discussion: response to limitations of community theory

The ideas presented in this chapter focus upon community as a self-description of society. This represents one aspect of the connective capacity of the semantics of community: connecting the observing system (society) with its own observations. Before considering the 'systemness' of community further, it is possible – and perhaps necessary – to first refer back to the reason for undertaking this line of inquiry.

Re-visiting the *problematique* provides an opportunity to reflect upon the limitations of normal science approaches identified in Chapter 2 that impede inquiry into the meaning of community. These are: (a) community theory is founded upon first-order descriptions of human settlements and interactions; (b) the way community is studied is problematic: theory, concepts, approaches, and object are self-referentially defined; and, (c) community is taken as a given object of social order situated between individuals and society. These limitations of normal science approaches infer that community theory is not only founded upon conceptual ambiguity but also conceals ambiguity within the inseparability of theory and its object of study. Any attempt to clarify the meaning of

community is unlikely to break free of self-imposed and self-reinforcing limitations of first-order observations. Community is ambiguous because it is ambiguous. Such can be the closed nature of the normal science of community theory.

But ambiguity is merely a consequence of first-order observations of community. At a second-order level of observation, which brings epistemological issues to bear, there is no ambiguity at all, but rather a certain kind of blindness. From a second-order perspective, we can observe that the inability of community theorists to see the limitations of their own science manifests itself as ambiguity.

In a radical move, a systems-theoretical framework dismisses several fundamental concepts about the social. These include:

- i. the principle of a unified, autonomous subject;
- ii. the idea of the social as a derivative sphere of intersubjectivity;
- iii. the corollary of communication as an interaction between subjects;
- iv. the notion of communication as a transmission of mental contents between separate consciousnesses; and
- v. the corresponding idea of language as a representation of such contents (Knodt 1995:xxv).

At the same time, one accepts:

- i. that problems of causality are secondary to problems of self-reference;
- ii. that all information processing ‘takes off’ not from identities but from differences;
- iii. that communication (as constituting and reproducing autopoiesis) is distinct from action (as the constituted element of social systems);
- iv. that human beings are the environment of social systems; and
- v. that the relationship between human beings and social systems is one of structural coupling (Luhmann 1995a:240).

In effect, operative constructivism dissolves the ontological basis of using the individual-community-society schema of social order as the normal science reference for community theory. Normal science approaches take community as an almost universal form of orderly existence between individuals and society, as either a cohesive collection

of individuals or as a logical microcosm of society, regardless of scale. Using a systems-theoretical approach, the individual-community-society schema is observed as a semantic self-description of society that arises during the early development of modern society. Accordingly, all self-descriptions, as operations of observing distinctions, always have a system reference.

The individual-society distinction is a form of generalised meaning contingent upon the researcher. What results from this operative process can no longer be fixed or accessed as ontological foundations of social order. A systems-theoretical framework premised upon an operative constructivist epistemology accepts the inherent self-reference of community theory as the basis for observing community. Taking self-reference as a point of departure marks a shift from first-order descriptions of community to second-order observations of community. First-order descriptions imply an observer (the researcher) observing an object (community). A first-order approach presumes an external observer that describes community as a given object: as empirical descriptions of what is and normative descriptions of what ought to be. A second-order observation takes a step back from the position of self-reference. When the community researcher is recognised as part of the observation of community, one can inquire as to how the researcher distinguishes community as an object of study. The paradox of self-reference need no longer be seen as a constraint. Rather, self-reference can be accepted as the basis for second-order observation.

A systems-theoretical inquiry into the meaning of community focusses upon the structural conditions of selectivity enforced by complexity. Methodologically, the approach is based on second-order observations: observe the observer. The approach

focuses upon the connectivity and selectivity afforded by semantics and social structures. Observing the semantics of community as self-descriptions of modern society provides an initial analysis of connectivity between the observer (the system of society) and the observed (its self-descriptions).

Thus, I can account for the conceptual ambiguity of community in two ways. First, the various approaches to the study of community are attributed to different observing systems. There is a plurality of community concepts because there is a plurality of observing systems. Second, the ability of community to defy definition is because, in operative constructivism, we understand that understanding the meaning of community is no longer an issue of essence or of the consensus of all observers but instead we understand that the decision of what counts is left to the system itself.

With this last comment, I have responded to each of the limitations of community theory. A systems-theoretical framework not only accounts for these limitations, but also, by embracing complexity as a foundation of inquiry, lends new insights to understanding the meaning of community (or, more specifically, has clarified to what community refers). Effectively, the framework turns a normal logical impasse of self-reference into an inquiry about the co-evolution of the semantics of community and the structural conditions of selectivity enforced by an increasingly complex modern society.

At a first level of observation, the semantics of community can be understood as a self-description of society. Primarily, semantics fulfills the function of describing what is missing in modern society (the unmarked side of the distinction). But self-description is always a matter of perspective; it is always a matter of observing the observer. In effect, we need no longer focus all of our attention upon definitions of community, nor do we

have to worry about the self-reference of theory, concepts, approaches, and the object of study. Instead, as Schecter points out, it is enough to know that people are using community. The job of rural studies researchers interested in community studies is to understand how community is being used as a distinction.

A systems-theoretical perspective of the semantics of community is gained from the methodological advantage of second-order observation: observe the observer; observe the observer's distinctions. I have described this generally as a matter of observing the systemness of the semantics of community. This systems approach provides a "new paradigm" (Bernard 1973) for understanding community outside the scope of normal science. In this regard, a 'post' normal inquiry premised upon complexity addresses the *problematique* of community theory. When one begins with complexity one encounters self-reference as the epistemological foundation of operative constructivism. In the next chapter, I extend an exploration of community's 'systemness' by moving from observations of the semantics of community as self-descriptions of society to observations of self-organising processes within the semantics of community.

5. OBSERVATIONS OF COMMUNITY: SELF-ORGANISATION

The discussion presented in Chapter 4 illustrates the contingency of society's selective process. Evolution creates its own conditions as it progresses (and comes to a halt when and as long as this does not succeed). This perspective helps to understand the changing semantics of community through, for example, a historico-cultural analysis. A systems-theoretical framework also lends insight to how community attains structural qualities within typological theories of change. But the possibilities of community have not been exhausted. Questions remain about why community has attained greater social significance and why it is used increasingly in the late-twentieth century.

The possibility explored in this chapter is that, as a response to new problems of an increasingly complex society, the semantics of community acquire greater communicative capacity through a self-organising process. Whereas the semantics of self-descriptions refer to emerging identity (Chapter 4), processes of self-organisation refer to emerging stability. Exploring aspects of self-organising stability represents another dimension of 'systemness.' Stability is an aspect of selectivity and connectivity that can be observed as a co-evolutionary product of semantics and social structure and, as will be discussed in the next chapter, can also be observed as a pre-adaptive advance of community system formation.

Self-referential systems are self-organising: they produce their own structures and are capable of specifying their operations via these structures. In this sense, self-organisation is circular. Eventually, as Luhmann points out, one must ask: "How can an autopoietic system come into existence, if it must presuppose itself in all of its operations in order to recognise what does and what does not belong to the system?" (Luhmann

2000:236). In other words, which comes first: the system or the structure? Luhmann's response is that evolution must create its own conditions for connectivity and selectivity; it must deal with the paradox of the improbability of the probable – and leave the rest up to chance.

In a self-organising process, self-descriptions are driven by an internal dynamic that propels and stabilises the operations of the system. Selection, connection, and stabilisation begin to orient themselves recursively. Thus, “the improbability of emergence is transformed into the probability of preservation” (Luhmann 2000a:215). Once community distinctions begin to stabilise and relate to one another recursively, what occurs is precisely what we expect from evolution of self-referential processes: the semantics of community finds stability within itself to the point where its boundary – its differentiation as a system/environment difference – becomes visible. The possibility of observing self-organising processes within the semantics of community is predicated on understanding how the semantics of community reflects structural qualities of connectivity. Self-descriptions are semantic devices that provide a loose coupling between system and its environment. Beyond self-descriptions, the development of codes, programs, and media of communication provide greater levels of connectivity (i.e., tighter coupling).

Self-organisation of semantics of community

Within the context of social evolution it is necessary to distinguish among varying capacities of semantic connectivity. The semantic connectivity of values appears to fulfill a particular role in a social evolutionary process. Whereas self-descriptions, as

discussed in the previous chapter, refer to emerging identity, values refer to emerging stability. What gives values stability is that they, in particular, have a capacity to persist under conditions of change (Luhmann 2000a). For example, people can value beauty, and this persists, but what people think of as beautiful can change. Values, like other semantic forms, are tested, accepted or discarded. The more they are used, the more connective capacity they acquire. Values, then, provide a basis for observing self-organising processes within the semantics of community.

As semantic forms become more connective (i.e., the more structural conditions of selectivity they develop), the more they simultaneously function as a factor motivating another person to accept what you are saying. This appears to be the case for community. Community is “bedevilled with value claims” (Eyles 1985:59), imbued with ideas of roots, belonging, and familiarity. Community also has an inherent goodness about it. As Bauman (2001:1) describes, community is a word that “feels good...it is good ‘to have a community’; it is good ‘to be in a community.’” The reason for this, according to Bauman, is that community promises pleasures that we would like to experience, like a warm, safe, cosy, comfortable place. In a similar way, the concept of ‘community spirit’ conveys an equally appealing value of goodness.

The stability of values rests on recursivity. “[V]alues are valid because they are presupposed to be valid” (Luhmann 2002b:164). Consequently, if another person does not agree they must announce this and assume the burden of argumentation of what is or is not community and why. In effect, the person who wants to object to what is community assumes the complexity of establishing connectivity. In this way, the semantics of community is consolidated through the communicative disadvantaging of

contradiction. The negative value of community – of not having community – re-inforces stability. When you speak against community, you are branded as someone who is against community, as an outsider.

Centring upon the ‘human’ appeal of the value of community, on the positive and negative side, offers the advantage of using familiar distinctions, such as belonging, attachment, familiarity, as well as empowerment, participation, and sustainability. Starting out from seemingly incontestable facts of human life creates a situation where, on the one hand, connectivity within the semantics of community leads to acceptance (=stability). On the other hand, self-reference leads to ambiguity.

Within the semantics of community, I propose that it is possible to observe connective capacities that are greater than the stability of values and consistent with symbolically generalised media of communication. Generalised symbolic media of communication are integral to societal capacity for connectivity, i.e., for processing meaning. In particular, symbolic media solve the problem of connectivity by combining selection and motivation (Luhmann 1986). Motives, it is important to note, do not arise independently of semantics (Luhmann 1986). Semantics describes how motives can exist and how they are to be communicated. “Motives are themselves a product of the evolution of generalised symbolic communicative media, i.e., an artifact of socio-cultural evolution” (Luhmann 1986:39). The combination of motives and selection means that the use of such generalised symbolic media increases the probability that one’s selection will be accepted by others because each symbolic medium has the particular quality of setting out the rules for the use of the medium (Beyer 1984). If one follows the rules of the code, communication should be successful. The possibility of observing

generalised symbolic media infers that the semantics of community possesses particular capacities for connectivity.

As a value, community is good because it is good. As a more connective medium of communication, community's 'goodness' is symbolically generalised in the semantics of inclusion, as can be observed in the semantics of community development, community economic development, healthy communities, public policy, and communitarianism.

Community development

Community, according to the Community Development Society (2002), is a basic building block of society that is complex and multi-dimensional. It refers to a place, to a group of people, and to normative aspects of togetherness. Community development practitioners follow principles of good practice that promote inclusion. For example, the principles of good practice set by the Community Development Society (2002) refer to active and representative participation toward meaningful influence over decisions that affect people's lives, to understanding economic, social, environmental, political, psychological, and other issues associated with "alternative" courses of action, and to disadvantaged members.

Both solidarity and the common good are embedded in community development as concepts of inclusion. Community development refers to solidarity as a particular quality of social relations (Bhattacharyya 1995). "[S]olidarity means a shared identity and a code of conduct, both deep enough that a rupture in them entails affective consequences for the members.... It makes it possible to distinguish community from all other types of social relations" (Bhattacharyya 1995:61). From a similar perspective,

community development refers to the common good (Ryan 1994). The common good is about being “more self-reliant and willing to work together” (Ryan 1994:7). Community, in reference to the common good, possesses both a sense of shared identity and service to the community. The underlying issue is collective action not as an aggregate of individuals but as an emergent property of the group as an entity. The concern is not primarily about ontological conceptions of community but of semantics of community as a motivating factor for including others in group action.

Community economic development

The use of community as a symbolically generalised symbol of inclusiveness is also evident in the semantics of community economic development. The distinction between *local* economic development and *community* economic development illustrates the point. Specifically, the use of ‘community’ conveys normative aspects of inclusiveness as part of the development process that ‘local’ does not. Three uses of community economic development are presented: Ross and Usher, Douglas, and Daly and Cobb.

The title, *From the Roots Up: Economic Development As If Community Mattered* (Ross and Usher 1986), reflects the book’s overall aim. The Vanier Institute of the Family, in the *Preface* to the book, states that Ross and Usher make clear that people have moved too far from the essential, informal economic relationship that exists necessarily between families and communities (Vanier Institute of the Family 1986:xv). The idealised view of sharing, comradeship, intimacy, and mutual aid that are associated with community is set against reliance upon a very large and complex organisation of economic life dominated by giant corporations and governments. Community has

become marginalised and obsolete. “The ultimate and proper task of economic policy should be to determine the mix of formal and informal economic activity a society wants and provide the incentives and encouragement required to support this balance” (Ross and Usher 1986:102). A greater policy emphasis on informal economic relations will effectively transfer the social obligation for economic development to the community. In other words, community is an arena of inclusion.

Douglas’s use of community elaborates upon what it means to transfer the responsibility of economic development to the community. Community economic development, according to Douglas, is strongly associated with a tradition of self-reliance and local-based action: “Community economic development entails purposeful design and action by community residents to influence the characteristics of their local economy” (Douglas 1994:7). And: “Ultimately, community economic development is about control, power, and choice. It is about livelihood, in the broadest sense, and the initiatives of people with a common cause to secure the viability and quality of their community through enhanced economic opportunities” (Douglas 1994:14). Community economic development is about addressing problems and opportunities related to local “quality of life” and the viability of the “community” itself (Douglas 1994:3). Fundamentally, these matters of local action and responsibility for economic development rest upon “human values of power, control, choice, and self-determination” (Douglas 1994:xiii). Finally, in the semantics of inclusion, community economic development “is a process through which development *of* the community is pursued *by* the community” (Douglas 1994:26).

Daly and Cobb (1989) present a “social view” of community as small, intimate, and interpersonal: people are constituted by their relationships; they are internally related to one another such that these relationships define their identities as persons. Community economic development is a counter to the self-interested behaviour of current economic theory. “The world that economic theory normally pictures is one in which individuals all seek their own good and are indifferent to the success or failure of other individuals engaged in the same activity. There is no way to conceive of a collective good” (Daly and Cobb 1989:159). Community economic development is conceived as economics not for society as an aggregate of individuals, but as economics for the “person-in-community.”

What is important for Daly and Cobb is consideration for the well-being of a community as an inclusive unit of development. The traditional model of economic development focusses too narrowly on the self-interested person. Daly and Cobb wanted a term that conveys the notion that people are bound up with one another, sharing, despite differences, a common identity. “The word ‘community’ seems to carry these connotations better than ‘society’” (Daly and Cobb 1989:170). The person-in-community model “calls not only for provision of goods and services to individuals, but also for an economic order that supports the pattern of personal relationships that make up the community” (Daly and Cobb 1989:164-65).

Healthy Communities

The concept of healthy communities is premised upon a broad conception of health, such as the World Health Organisation’s determinants of health. The determinants of

health are broad, including provision of a safe, clean environment, meeting the basic needs of all members, a diverse, innovative economy, and ecological integrity. The idea is that public health policy should not be based strictly on treating the illness but should be based on a holistic approach to physical, mental, and social well-being. The concept of ‘healthy communities,’ therefore, refers to broad understanding of human development at the local level.

As Wall (1994) argues, the semantics of health and of community have changed places: “We have gone from having *health* implicit in the rural community model to having *community* be an integral aspect of the health model” (Wall 1994:3). The semantics of healthy communities has been formalised by Hancock (1997) and institutionalised by such organisations as Ontario Healthy Communities Coalition (OHCC 2003). According to OHCC, the practice of “building community capacity” centres upon four principles: multi-sectoral participation, local government commitment, community development, and healthy public policy. These principles emphasise identifying local issues, recognising local resources, and taking local action. As such, a healthy community is not as much an entity as it is an inclusive, participatory process of development.

Interestingly, the semantics of healthy communities conveys its own form of self-reference. A ‘healthy community’ is comprised of community, environment, and economy (Hancock 1997). Thus, a healthy community includes community as one of its components. In effect, a healthy community is both a process and an entity. The desired goal is to create healthy and sustainable communities and the necessary process to achieve this goal is to adopt a healthy community approach (Hancock 1997). Thus, the

semantics of healthy communities refers to community as both the *source of* societal values of inclusion and a societal value in and of itself. On this basis, Hancock argues that the health and well-being of the planet is premised upon healthy communities.

Public Policy

According to Evans and Advokaat (2001), the “language of community” within Canadian public policy is borrowed from the field of community development: by being inclusive one can build strong communities and strengthen community involvement. Evans and Advokaat find that community is an important theme in the political rhetoric of Canadian public policy, resonating in political campaigns and, increasingly, as the basis of programming at federal, provincial, and local levels of government. “Community is portrayed as a means by which individuals can remain connected to a larger collective and is portrayed as both a counterweight to the stark individuality of the free market and the bureaucratic subjugation of the welfare state. In this conception, membership and participation in community is less a function of demography or geography and more a matter of personal choice and agency in a world of multi-layered and diverse communities” (Evans and Advokaat 2001:1).

Community, as a guiding principle of public policy, denotes a “natural site” (Evans and Advokaat 2001:6), as opposed to the nation, the province, or the municipality. The natural appeal of community is similar in this sense to Ross and Usher’s emphasis upon the informal economic relations represented by community. The use of community in public policy also appeals to the social responsibility of “service to the community.” The normative appeal of inclusiveness influences public decision-making processes: “Community provides

a more appropriate way of deciding matters of public interest and meeting the needs of citizens than the structures of government” (Evans and Advokaat 2001:6).

Community as a social ideal of communitarianism

A look at community as a social ideal of communitarianism provides another aspect of how community possesses the connective capacity of a symbolically generalised media of communication. In this example of its semantics, community is used in contrast to society as a means of distinguishing social values. The dominant theme of late twentieth century communitarianism is that individual rights need to be balanced with social responsibilities and that autonomous selves do not exist in isolation, but are shaped by the values and culture of communities (Etzioni 2000; Sirianni and Friedland 2002). Like Daly and Cobb, communitarianism promotes a “social view” of the world in which autonomous selves do not exist in isolation: the “I” is constituted through the “We” in a dynamic tension. “Unless we begin to redress the balance toward the pole of community, communitarians believe, our society will continue to become normless, self-centered, and driven by special interests and power seeking” (Sirianni and Friedland 2002).

Although community is not the fundamental issue of the communitarian movement, community is a central symbol of inclusion. Community “is the place where we communicate with others, deliberate, come to agreements about standards and norms, pursue in common an effort to create a valuable form of life” (Bellah 1998:17). Further, communitarianism “believes that individuals are realised only in and through communities, and that strong, healthy, morally vigorous communities are the prerequisite for strong, healthy, morally vigorous individuals” (Bellah 1998:18). Community is a

social ideal that counters ideologies of free market conservatism and welfare state liberalism. “Communitarianism seeks to provide a humane context within which to think about the market and the state. Its first principle is the one already enunciated in what I have said about community: it seeks to define and further the good which is the community’s purpose” (Bellah 1998:17).

The examples from community development, community economic development, healthy communities, public policy, and communitarianism represent semantic forms that have been tested and accepted. The more they are used, the more connective capacity they acquire. These examples not only uphold community as a social value but, beyond this, the semantics also conveys rules for the communication to be accepted: community is valued because it is inclusive; community is valued because it is local; community is valued because it is natural; community is valued because it is humane.

These examples also demonstrate that the semantics of community develop greater connective capacities than values. The symbolic generalisation of inclusion increases connectivity by combining selection and motivation. This means that the use of the semantics of community as a generalised symbolic medium increases the probability that one’s selection will be accepted by others because community has the particular quality of setting out the rules for the use of the medium. If one accepts the goodness of inclusion, communication should be successful – so long as the underlying distinction is not questioned.

Function of the semantics of community

The discussion to this point provides a description of the semantic evolution of community, which lends insight to how the semantics of community both proliferates and becomes socially more significant. But this does not yet explain the possibility of this evolution. Thus far I have only focussed upon the semantic side of the process. This must be complemented by a better understanding of the co-evolutionary relationship of semantics with societal structure. To do so I will next look at the function of the semantics of community. Functions, like self-descriptions, act as catalysts, as evolutionary attractors that steer selectivity and connectivity. “Functions help a complex system to describe itself, to introduce an expression of identity and difference into the system” (Luhmann 1995a:299). Thus, we can observe a semantic orientation toward a function as a mode of self-organisation. In particular, observing the function of semantics relates to how community constructs a new reality that tries to make sense of society’s new structural problems. Or, to reverse the terms, observing how society constructs a new reality in response to new structural problems reveals the function of semantics.

Via self-organisation, a function orients itself to specific problems of paradox that arise within society. In this context, the evolving semantics of community functions to make visible possibilities of order that would otherwise remain invisible. In other words, the possibility I explore is that the semantic evolution of community is a systemic response to dealing with the consequences of societal changes, i.e., as a way to cope in modern society of the late-twentieth century. The function fulfilled by the semantics of community relates to this aspect of coping. Specifically, I propose that the possibility of

community (in modern Western English-speaking society) is contingent upon changing system-to-system relations.

As has been argued thus far, semantics of community co-evolves with changes in social structures. Inevitably, the differentiation of semantics results in the formation of other paradoxes and, correspondingly, one paradox leads to another paradox.

It will come as no surprise to sociologists that any transformation of the improbable into the probable is up against precisely such risks. The real question is thus whether it is possible to provide a more accurate indication of the conditions which lead to such a pathological state (Luhmann 1986:55-6).

To understand the function of the semantics of community in the late-twentieth century further attention must be given to the social structural conditions of modern society.

One feature of late-twentieth century modern society is an increasing rate of change and a corresponding evolution of self-descriptions (hence: 'post-modernity'; 'hyper-modernity'). In an era of 'post-modernity,' the incompatibility of functional systems and a different kind of system-to-system relationship affects self-descriptions (Luhmann 2000a). As a result of functional differentiation, according to Luhmann, modern society no longer has a center or controlling sub-system. The lack of a binding representation within society makes sense so long as one accepts not only that modern society is dominated by functional systems, but also that functional domination excludes other possible ways of processing experiences of the world. When there is no longer a binding representation, and an excess of possibilities exist, everything depends on how the systems relate to each other. Not before the late twentieth century is society fully confronted with the consequence of its structural selections (Luhmann 1988b). That is, given the onset of globalisation, the pursuit of sustainability, multiple constructions of environmental crisis, and similar semantic descriptions of an increasing complexity of

modern society, the excess of possibilities that emerges affects the relationships among systems. What we find is that the self-descriptions of an increasingly complex society are becoming increasingly complex.

As presented in Chapter 3, the differentiation of society, from segmentary to stratified to functional, is based on relations of equality/inequality. The transition to a functional mode of differentiation “calls for the greatest maximum inclusion of all segments of the population in all functional areas” (Luhmann 1986:46). Furthermore, functional differentiation is predicated on the fact that there is equal access to each function. However, the condition of equality among systems also implies that there is no longer a single binding representation of society within society. Each function system constructs (and can only construct) society according to itself, by its own distinction (e.g., to pay/not pay; legal/illegal). Thus, the *inclusion* of all segments of the population in all functional areas places paradoxical demands upon the probability of a shared world when all worlds are equally different. Whereas society needs equality in order to increase the probability of functional differentiation, at the same time modern society’s increasingly complex functional differentiation undermines the probability of inclusion.

A few words are necessary to clarify what I mean by inclusion/exclusion, as opposed to equality/inequality. At one level of understanding, the inclusion/exclusion distinction is equivalent to marked/unmarked or inside/outside distinctions. Each distinction refers to the difference between system and environment. A second understanding of inclusion/exclusion is closer to a socio-political use of inclusion/exclusion: Who is included? Who is excluded? This understanding of inclusion/exclusion relates back to late-twentieth century semantics of community in

which inclusion is a value: community is good because it is inclusive. In more formal systems-theoretical terms, this second understanding of inclusion and exclusion refers to the way persons are taken into consideration in the communication processes of social systems (Stichweh 2002).

Equality/inequality is different. As stated above in relation to societal differentiation, equality describes relations among social systems. For example, equality among segmentary systems is predicated on equal probability of emergence; no system is privileged over another.

To deal with the paradox of equality, semantics must develop the capacity for making the improbable probable. Luhmann (1986) argues, for example, that it was the task of the semantics of love to address certain contradictions of the personal/impersonal distinction that emerged in the transition from stratified to functional society. Here, I propose that the semantics of community fulfills an equivalent function to the semantics of love in a period of 'hyper' functional differentiation. In the late twentieth century, the increasing complexity of modern society affects system-to-system relationships, with corresponding effects upon self-descriptions of modern society. As the incompatibility of functional systems and the improbability of equality become apparent, the semantics of community begins to rely on its own self-descriptions as a way to re-construct the possibility of equality. Namely, the semantics of community provides a different description of system-to-system relationships that is 'simpler.' Simpler, as described previously, means, for example, that a binary code (e.g., legal/illegal) is more functional and more likely to be autopoietically reproduced than a multi-functional code, such as when community refers to a social value of health. This move to a simpler semantics is

consistent with Luhmann's argument that "after bursts of complexity evolution tends to start all over again on a smaller scale, exploring new possibilities on a relatively simple basis without any evolutionary guarantee of success" (Luhmann 2000a:178).

What is at stake here is the dominant self-descriptions of society created by functional systems like economy, politics, law, science, and others. Equality of functions leads inevitably to multiple worldviews – and to the possibility of accepting all worldviews as possible. For example, in art, when the upper classes had lost the certainty of their judgments, that is, when society was no longer bound to a social order from the top, a one hundred year debate started about "taste" as an objective criteria of beauty (Luhmann 2000a). Likewise, in the late-twentieth century we see on a daily basis the incompatibility of functional systems. In economics, for example, classic economic theory 'resolved' the general moral paradox of altruistic self-interest. In the late twentieth century, however, the values of a free market and of growth-centred progress appear to be creating ever more problems than to be providing solutions. The view from within the worldviews of counter-globalisation and of sustainability, the neo-liberal agenda of self-interests has lost its hold as a description of social order.

The semantics of community functions to cope with an increasingly complex modern society. Society, in its own attempt to deal with the consequences of functional differentiation, finds itself in the paradox of equality/inequality. Each person's view of the world is increasingly individualised yet still held to be anonymously constituted (Luhmann 1986). The semantics of community functions to make probable a common view of the world as a differentiated entity in a society whose functional differentiation makes this highly improbable. It is the function of addressing this paradox that triggers

the semantics of community, as a way of processing meaningful worldviews within a functional society.

Positivity as a form of self-reference

By the late-twentieth century, the meaning of community is becoming more general and abstract as well as becoming more specific. In the general and abstract, community refers to inclusiveness regardless of scale, reflecting the residual meaning of having in common, without being bound to either land or property. It is only as a general and abstract description of human relations that it is possible to use community across an increasing range of contexts. Hence, the Brundtland Commission (1987) can refer to and speak for the “world community”; Wellman et al (1988) can refer to personal communities as networks; and, people can belong to the virtual communities of the Internet (Driskell and Lyon 2002). Perhaps the reason that community moves in this semantic direction is that the semantics of ‘society’ is losing relevance in a global context. In this sense, community, once again, changes to fill a gap. Paradoxically, the increasing use of community to describe almost any group of people at any scale, from ‘virtual communities’ to a ‘world community,’ undermines the significance of the term as a meaningful self-description. The general and abstract semantics of community is restricted to the realm of self-descriptions of society, which is a condition of connectivity discussed in the previous chapter. More specific uses of community describe system-to-system relations and process the meaning of equality/inequality. This specific semantics of community no longer describes what is missing in society. Rather, this semantics makes possible a common world as a description of social order.

Most notably, the semantics of community development, community economic development, healthy communities, public policy, and communitarianism illustrates a shift from negativity (of what is missing in society) to *positivity*. In this shift the semantics of community acquires a motive to describe itself. Semantics no longer functions as a means to secure hetero-reference (negativity); instead semantics organises self-reference (positivity). In other words, rather than focus upon the unmarked side of the distinction, community indicates the marked side of the distinction. Although a positive view of community likely existed previously in various forms, positivity assumes an emerging dominant form in the context of globalisation and ecological concerns.

As long as community is used to refer to both sides of a distinction, the relationship between community and not-community becomes increasingly paradoxical, which is to say that it becomes increasingly difficult to know to what community refers. Community embodies the desire for a more *inclusive* world: “the concept of community has become even more central to a wide-spread atmosphere and movement in western society – a revolt against progress and modernisation, a rejection of individualism and of economic growth as alienating, a longing for the warmth, comfort, and humanity of a *real* community” (Kamenka 1983:vii). Barbesino (1997:689) stated that community is “increasingly seen as the remedy against the impersonal features of modern society.” As a resistance to capitalist forces, the semantics of community emerges as a positive counter to the perceived alienation of global-scale development and growth (Barbesino 1997). Community also emerges as a source of social values in the pursuit of sustainability. Rees (2001) states that reducing ecological footprints is one step toward sustainability and, to achieve sustainability, people must turn to “community” to restore

values. Similarly, Bunce (2001) states that rural sustainability must focus on community. Meanwhile, negativity persists. For example, Laxer (1995) argues that globalisation is about the destruction of communities.

As the relationship between community and non-community becomes more clearly paradoxical, values and symbolically generalised media of communication are employed to resolve (conceal?) self-reference. Thus, the semantics of community are used increasingly and become more socially significant in the late-twentieth century as a communicative medium of inclusion. This change in the semantics of community can be observed as a critical part of society dealing with problems of self-observation. In this regard, the semantics of community as a symbolically generalised medium of communication is part of an on-going process of self-organisation.

Emerging semantics of sustainable rural communities

The semantic evolution of community as a positive form of self-description and as a generalised symbol of inclusion is particularly evident in the emerging semantics of sustainable rural communities. Examining this semantics in detail lends further insight to the meaning of community generally and, more specifically, to the meaning of community as it relates to rural studies.

A brief look at the Doctor of Philosophy program in Rural Studies at the University of Guelph provides an appropriate point of departure for discussing the emerging semantics of sustainable rural communities. The designated field of the Rural Studies program is Sustainable Rural Communities. This field was proposed as a necessary, non-traditional study of problems and opportunities facing rural communities

in a period of tremendous change, global economic restructuring, social decline, and increased environmental consciousness (University of Guelph 1992). As a field of study, Sustainable Rural Communities emphasises community-based matters and sustainable development for rural communities, wherein community is defined as a spatially-defined locality, a human community in a particular geographic place.

To launch the Rural Studies program, the University of Guelph hosted a series of seminars on the theme of sustainable rural communities. In his introduction to the series, Bryden (1994) explains that the Sustainable Rural Communities program is important and timely because “our values and beliefs, especially about what is right, what is wrong, what the balance between self-interest and collective interest ought to be, about the balance, therefore, between individual rights and responsibilities and collective rights and responsibilities” are all in flux (Bryden 1994:42). Further, Bryden argues, the world is too complex and too uncertain to understand these interdependencies. Bryden’s account of sustainable rural communities introduced a wide range of topics on the subject, including agricultural sustainability, rural development, post-industrialism, the nature of contemporary rural society, and institutional restructuring. The University of Guelph’s seminars provide background material for understanding the semantics of sustainable rural communities.

I cast ‘sustainable rural communities’ as an emerging semantics of community. In particular, I focus upon the emerging semantics of ecological communities, sustainable communities, and sustainable agriculture to illustrate how the semantics of community, through a self-organising process, acquires a motive to describe itself as place-in-this-world. I first provide examples of this emerging semantics.

Ecological communities

The semantics of ecological communities is bound to a view of the world not only of people but also of other life forms and land. As well, a concept of place extends meaningful human relations to include space and landscape. A pragmatic view of ecological communities was presented nearly a century ago by Leopold (*A Sand County Almanac*) who described the land itself as a community made up of rock, water, soil, plants, and animals: “When we see land as a community to which we belong, we may begin to use it with love and respect” (Leopold, cited in Sanders 1996:48). Leopold’s concept of community is central to his aim to elevate environmental consciousness in modern society. This is consistent with those writing about ecological communities, thus accounting for the renewed interest in Leopold.

Leopold’s community is rooted in the land, shifting from an emphasis upon “human communities” to an emphasis upon living in harmony with ecosystems.

Similarly, Kalinowski states:

To be good *citizens* of our ecological communities requires three things: there must be an ethic founded in our instinctive moral sentiments, an esthetic that connects and sensitises us to our surroundings, and experience to teach us to expand our environmental awareness while remaining rooted to the primitive origins of our social conscience.... Final inclusion in the biotic community comes when persons become emotionally rooted to a place they can call their own (Kalinowski 1996:141).

The experience of community, therefore, is a sense of feeling connected to the elements of ecosystems. A connection to the land implies a closeness and an intimacy: “when we become disconnected we become desensitised” (Kalinowski 1996:142). In a similar way, a Canadian First Nation Chief stated that he wanted to build a “community”

for his people.¹⁹ When asked why he used the term “community” and not “first nation,” the Chief responded that nation refers to people only, community refers to people and land.

Ecological communities include references to “green cities,” “ecological villages,” “sustainable communities,” “eco-cities,” and “green communities.” The common principle among these concepts, according to Saunders (1997), is the view of human settlements as ecosystems. “Viewed as ecosystems, human settlements should be energy efficient, produce little waste, and be self-reliant – much the same as ecosystems appearing in nature” (Saunders 1997:114).²⁰ Vitek (1996b) argues that people live within larger natural ecosystems whose health and integrity depend on the recognition of and respect for this broader interrelationship.

Sustainable communities

The semantics of sustainable communities is conditioned by ecological concepts. A difference is that sustainable communities emphasise not only attachment to land and non-human life forms, but a broader, societal view of sustainability. According to Beatley and Manning (1997), sustainable communities are about a fundamental re-organisation of society.

Planning for sustainable communities is not simply a matter of avoiding a few wetlands, or saving a few acres of open space, or putting in place a few nonpoint best-management practices. Rather, it requires considering ecological limits and environmental impacts at every step of community development and in every aspect of community design, from the energy efficiency of buildings to the regional transportation system to how the industrial and commercial sectors in the community go about business (Beatley and Manning 1997:28).

¹⁹ These comments are from an informal conversation I had with Chief Glen Nolan, Chief, Missinabie Cree First Nation (Atikokan, Ontario, June, 2002).

²⁰ Saunders (1997:114) outlines specific criteria for what constitutes an “ecological community.” He also outlines ten recommendations for community designers wishing to translate ecological community theory into practice.

In the same context, sustainable communities also refer to matters of human scale (Roseland 1997; Beatley and Manning 1997:17). In the final analysis, Beatley and Manning's vision for sustainability, for making a difference in the world, rests upon the idea of sustainable communities. Similarly, Vitek states that the shift to an ecological ethos is premised upon "the rediscovery of community" (Vitek 1996:177).

Sustainable communities can also be understood as a political movement.

Community sustainability offers a unifying framework that "embodies a more integrative and holistic viewpoint that creates a more equitable and just society.... A sustainable community, therefore, is a just and equitable community" (Beatley and Manning 1997:35). The vision of sustainable communities is necessarily normative: "it explicitly expresses certain values and ethical responsibilities, including duties to live within ecological limits, to consider generations for years to come, to value the equity of our current relationships, and to rise to the demands of community" (Beatley and Manning 1997:37).

The semantics of sustainable communities, as a relationship between humans and environment, also refers to a spiritual dimension. "Spirit is the foundation of indigenous knowledge, process, and religious expression. It also forms the ecological context through which to observe and integrate those understandings, bodies of knowledge, and practices resulting from direct interaction with the natural world" (Haas and Nachtigal 1998:17).

The combination of political, spiritual, and ecological arguments for sustainable communities exceeds a common understanding of community. At an extreme, Haas and Nachtigal (1998:4) state, "The survival of humanity depends on our understanding of how ecosystems organise themselves." Normative aspects of community's togetherness

are embedded in a social-ecological approach, often invoked as a basal value that transcends particular approaches and policies of sustainability.

Sustainable agriculture

The use of community within discussions about sustainable agriculture adds to the semantics of community. Sustainable agriculture refers, for example, to the concept of foodshed as human activity embedded in the natural arrangement of a particular place (Kloppenburger et al 1996:117). The concept of foodshed infers community to be proximal human agricultural activity; rather than an ecosystem, for example.

The self-reliance associated with proximity is closely linked to both social and environmental sustainability. A community that depends on its human neighbours, neighbouring lands, and native species to supply the majority of its needs must ensure that the social and natural resources it utilises to fulfill those needs remain healthy. A consequence of proximate self-reliance is that social welfare, soil and water conservation, and energy efficiency become issues of immediate practical concern (Kloppenburger et al 1996:119).

A theme of local versus global is also part of the semantics of sustainable agriculture.

“The restoration of local communities, especially rural communities of human scale, is essential to national renewal” (Cobb 1996:194).

In sustainable agriculture discussions, the global food system contributes to ecological and social destruction. As an alternative to the global food system, local food systems comprise “diversified farms that use sustainable practices to supply fresher, more nutritious foodstuffs to small-scale processors and consumers to whom producers are linked by the bonds of community as well as economy” (Kloppenburger et al 1996:113).

Berry (1996) refers to the “strong community economies”: an economy in which local

consumers buy as much of their food as possible from local producers and in which local producers produce as much as they can for the local market.

There is also a political dimension to the sustainable agriculture discussion. What Berry describes as a two-party system divides over the fundamental issue of community.

One of these parties holds that community has no value; the other holds that it does. One is the party of the global economy; the other I would call simply the party of local community. The global party is large, though not populous, immensely powerful and wealthy, self-aware, purposeful, and tightly organised. The community party is only now becoming aware of itself; it is widely scattered, highly diverse, small though potentially numerous, weak though latently powerful, and poor though by no means without resources (Berry 1996:80).

The aims of the community party are the preservation of ecological diversity and integrity, and the renewal, on sound cultural and ecological principles, of local economies and local communities. Berry then asks: Who are the members of the party of the local community? They are, he responds, people who are ecologically minded: “They see that things connect – that farming, for example, is connected to nature, and food to farming, and health to food – and they want to preserve the connections. They know that a healthy local community cannot be replaced by a market or an entertainment industry or an information highway” (Berry 1996:80). Worster (1984:37) emphasises the incompatibility between the two politics: “A farm policy defined only in market terms inevitably must destroy the agricultural community to make it prosper.”

In contrast to a global food system, Community Supported Agriculture is a partnership of mutual commitment between farmers and consumers that, as the name suggests, is “shaped and expressed principally through communities” (Kloppenburg et al 1996:116). For Kittredge (1996) community-supported agriculture is about rediscovering community.

Within the sustainable agriculture literature, the semantics of community refer to a rootedness to place, an ecological ethos, and local food systems. As Logsdon (1984:18) argues, the reason “back-to-the-land” movements fail for so many people “is not so much that they were ignorant of traditional technology – too stupid to stuff rags in the rat hole, as country people say – but that their homesteads were islands in an alien culture. There was no community to rebuild their barns or their dreams.” And, as a final word on sustainable agriculture, “The challenge now is to retrieve that commitment to community from the past, from scattered pockets of rural life, and to find a modern expression for it in this new age of industrial agriculture” (Worster 1984:40).

The semantics of sustainable rural communities reflects how the semantics of community acquires a motive to describe itself in terms of what it is, as opposed to what society is not. Correspondingly, the semantics of sustainable rural communities explicitly expresses certain values and ethical responsibilities (Beatley and Manning 1997) and a spiritual dimension (Haas and Nachtigal 1998). The combination of political, spiritual, and ecological arguments within this semantics exceeds a common understanding of community, while the semantics of sustainable agriculture adds a particularly local and rural dimension to these observations.

As opposed to the general and abstract semantics of world communities and virtual communities, the semantics of sustainable rural communities is more specific. This is part of a self-organising process. Stability within the semantics of sustainable rural communities comes by focussing inward, by testing semantics to either accept or reject them, all in the process of establishing a difference between community and not-

community. As Kalinowski states, inclusion “comes when persons become emotionally rooted to a place they can call their own” (Kalinowski 1996:141).

One's place in the world

Many distinctions are used within the community literature. As already mentioned, there are ecological, sustainable, green, and other descriptions of communities. As well, there are Just (Newbrough 1995), just and equitable (Beatley and Manning 1997:35), true (McLaughlin and Davidson 1985; Cock 1979), real (Kamenka 1983), genuine and counterfeit (Freie 1998), ethical (Bauman 2001), and pseudo- (Ehrenfeld 1996) communities. Each of these distinctions relates to different themes of the semantics of community and suggests different semantic experiments directed in its own way at observing a boundary of community.

A long-standing debate within community theory centres upon the distinction between place-based and non-place-based communities (Bernard 1973; Wilkinson 1991). This debate has been renewed with the advent of concepts such as the world community and a virtual community. As discussed above, the non-place-based descriptions of community align more strongly with the general and abstract semantics of community. My interest is in the more specific uses of community, as illustrated by the discussion about the semantics of sustainable rural communities.

The concept of place is very important for the emerging semantics of sustainable rural communities. Several examples from the literature illustrate this point. “A sense of community is most simply put as an awareness of simultaneous belonging to both a society and a place” (Livingston 1996:132). “If we speak of a *healthy* community, we

cannot be speaking of a community that is merely human. We are talking about a neighbourhood of humans in a place, plus the place itself..." (Berry 1992:14-5). Lamb (1993) recounts stories he collected while wandering the back roads of the United States listening to people who were talking about community. "From them I learned the meaning of place – where you belong and not necessarily where you are" (Lamb 1993:8). Haas and Nachtigal (1998:21) describes community as collectively creating a story about place: "It is the narrative of who we are, how we get along together, how we make a living, and how we are connected." The book, *Rooted in the Land*, is dedicated to the search for a community life rooted in a place, to finding our natural place in the natural world, and to the rediscovery of place and the sense of community it holds (Vitek 1996b).

A focus upon place requires thinking about the relationship between humans and the natural world (Vitek 1996a). It is possible to relate this way of thinking to Luhmann's concept of natural representation. Natural representation, which once bound segmentary societies, is elementary knowledge of the surrounding geographical space and of individual persons. Modern society, however, is characterised by the loss of natural representation. The totality of society is never fully present; it is replaced by coding its identity as a self-description. New formulations of non-binding, system-to-system relations displace natural representation as a basis for social order. As discussed above, system-to-system relations give rise to the paradox of equality and which community functions to resolve. In this context, we can relate self-descriptions of place to a re-formulation of natural representation. As society and the possible worlds it can constitute become more complex, people have a greater need for a world that is "understandable, intimate and close"; a world that one can "learn to make one's own" (Luhmann 1986:16).

The idea I will develop further is that the emerging semantics of community express the meaning of a world that is not only inclusive, but also close and comprehensible. I propose that people use community to describe a place that is distinct from other places, but cannot fully conceive of all other places. One cannot conceive the totality of the world. Community stands in distinction to an unknowable world – as ‘one’s place in the world.’

Before exploring this idea of ‘one’s place in the world’ in more detail, it is necessary to re-visit an understanding of ‘world’ within Luhmann’s framework. All social systems re-construct society as a difference between system and world, wherein ‘world’ refers to a unity presupposed not a unity that can be observed. “The concept of a world designates a unity that becomes actual only for meaning systems that can distinguish themselves from their environments and thereby reflect the unity of this difference as a unity that trails off in two endless directions, within and without” (Luhmann 1995a:208). In a de-ontological sense, a new system/world difference is a new internal difference in society: a difference of this place from elsewhere (Luhmann 1989).

The examples from the ecological communities, sustainable communities, and sustainable agriculture literature suggest that place-in-the-world is an important aspect of the emerging semantics of sustainable rural communities. Two related areas of thought enrich this observation. First, the need to describe a world that is close and comprehensible is central to the systems-theoretical understanding of intimate relations. Second, the idea of a close and comprehensible world is also found in a phenomenological understanding of place as a point from which one experiences a world. I will discuss each of these points in more detail.

Differentiation of intimate relations

To consider the semantics of community as describing intimate relations, I will expand upon the concept of intimacy within a systems-theoretical framework. In systems-theoretical terms, intimate relationships are based on interpersonal interpenetration, which is a term that refers to the relation between two closed systems (Luhmann 1986, 1995). Intimate relations, as the interpenetration of social and psychic systems, include the inner experiences of other people and thus for the possibility of a shared sense of a close world to become differentiated.

According to Luhmann (1986), intimate relations exist between two people. To consider intimate relations as part of the semantics of community, a systems-theoretical concept of intimacy must be extended beyond two people. For this, I draw upon Bensman and Lilienfeld's (1979) broader conception of intimate relations²¹. Although Bensman and Lilienfeld do not discuss intimate relations in systems terms, their underlying framework is similar to Luhmann's framework. For Bensman and Lilienfeld, intimacy refers to people – but not only to two people – in close, continuous, and relatively deep association over a wide range of behaviour. Like Luhmann, Bensman and Lilienfeld explore how the operations of society alter these spheres of personal and impersonal relations. Both are concerned with how individualism and privacy demand new forms of intimacy and communalism as assertions of the need to express people's most intimate and private selves. Further, Bensman and Lilienfeld argue that the development of social structures (e.g., political, economic, religious) are not background

²¹ Bensman and Lilienfeld take issue specifically with Goffman. First, they feel that Goffman took for granted the total institutional structure of society, conceiving of that structure as only the stage setting within which individuals act out interpersonal role behaviour. Second, they argue that Goffman's motivation scheme of self-enhancement and self-defense in personal relations is far too narrow a conception for human motivation.

but the basic medium through which expressions of intimate relations are formulated. On this account, Bensman and Lilienfeld and Luhmann agree. Overall, based on the similarity between these two concepts of intimate relations, it seems reasonable to extend the concept of intimate relations to involve more than two people. Whereas intimate relations between two people, according to Luhmann (1986), employ the semantics of friendship and love, I add the semantics of community to account for intimate relations among more than two people.

Luhmann's systems-theoretical account of intimacy can now be developed further. In particular, I argue that the differentiation of the semantics of community has strong parallels with the differentiation of intimate relations between two people. A parallel between intimate relations and the semantics of community is expected because each is based on the personal/impersonal distinction, the corresponding rise of individuality in modern society, and changing system-to-system relations.

When systems observe an increasing number of increasingly distinct other systems in their environments, a distance develops between systems and their environments. In a society in which no individual system interprets the world for the other systems, there is no single binding representation. Correspondingly, the emergence of modern society is characterised by a fundamental shift in the quality and distribution of social relations, from personal to more impersonal relations. Impersonal relations are increasingly mediated by money and formalised roles predicated upon functional relationships. Such impersonal relations displaced, for the most part, personal, communal relations of simpler societies. In other words, functional differentiation socially displaces people. "At the same time, society and the possible

worlds it can constitute become much more complex and impenetrable” (Luhmann 1986:16). People can no longer be bound to a single system of society and, therefore, they relate to the world in terms of a difference between themselves and their environment. The differentiation of intimate relations is an evolutionary response to these societal conditions.

What one looks for in an intimate relationship “is first and foremost *the validation of self-portrayal*” (Luhmann 1986:165). In the semantics of love (intimate relations between two people), validation is a matter of passion. Making one’s own experience of a close world available to others – and having it affirmed by others – is the basis of intimate relations. In the semantics of community, as proposed here, the validation of self-portrayal is a matter of inclusion. But, as we have seen, a unity of inclusion/exclusion is paradoxical. As each person’s view of his or her world is increasingly individualised yet still held to be anonymously constituted, the probability of successful communication becomes less probable.

To increase the probability of communication, the semantics of community includes self-descriptions of intimate relations. People construct a world that is understandable, intimate, and close. “The individual person needs the *difference* between a close world and a distant, impersonal one, i.e., the *difference* between only personally valid experiences, assessments and reactions and the anonymous, universally accepted world—in order to be shielded from the immense complexity and contingency of all the things which could be deemed possible” (Luhmann 1986:16). That is, people speak of a psychological sense of belonging, sense of community, sense of attachment, sense of rootedness, and sense of place.

Place

The semantics of place, widely used in a range of disciplines including geography, humanities, sociology, and psychology, as well as social ecology, environmental sociology, and environmental psychology, provides another dimension to the way community describes itself.

From a phenomenological perspective, according to Relph (1976, 1985), places are basic elements in the ordering of experiences of the world. It is, among other things, about rootedness. Relph argues “to have roots in a place is to have a secure point from which to look out on the world, a firm grasp of one’s own position in the order of things, and a significant spiritual and psychological attachment to somewhere in particular” (Relph 1976:38). Place is about “reflecting and revealing human nature and seeking order and meaning in the experiences that we have of the world” (Relph 1976:4). In other words, we can conceive of rootedness as a form of being included in place.

A sense of place begins with the lived-world of immediate experience (Relph 1976). It centres upon intimate relations derived from rootedness. “In both our communal and our personal experiences there is often a close attachment, a familiarity that is part of knowing and being known *here*, in this particular place” (Relph 1976:37). Rootedness, place, and community are interrelated: “A human being has roots by virtue of his real, active and natural participation in the life of the community, which preserves in living shape certain particular expectations for the future” (Weil 1955:53, cited by Relph 1976:38) The need for “roots” can be seen as an essential experience of place, and as Relph suggests (1976), at least equivalent to the need for order, liberty, responsibility,

equality, and security. Further, Relph argues that rootedness is a complete commitment to a place that is as profound as any that a person can make in relation to the world.

In systems-theoretical terms, the identity of place is a distinction that marks a unity of difference of here/there, inside/outside. Distinctions enable others to determine what is meaningful and what is not. The self-referential creation of an inside distinguished from the outside is also an important aspect of the phenomenology of place. Paradoxically, “What is involved is not merely the recognition of differences and of sameness between places – but also the much more fundamental act of identifying sameness in difference” (Relph 1976:45). Relph continues:

“The essence of place lies...in the experience of an ‘inside’ that is distinct from an ‘outside’; more than anything else this is what sets places apart in space and defines a particular system of features, activities, and meanings. To be inside a place is to belong to it and to identify with it, and the more profoundly inside you are the stronger is the identity with the place” (Relph 1976:49).

According to Norberg-Schulz (1971:25), “to be inside is the primary intention behind the place concept; that is to be somewhere, away from what is outside.” Lyndon et al (1962:34-5) states: “Being inside is knowing where you are.” And, finally, according to Bachelard: “Outside and inside form a dialectic of division, the obvious geometry of which blinds us.... Outside and inside are both intimate – they are always ready to be reversed, to exchange their hostility” (Bachelard 1969:211 and 217-18, cited in Relph 1976:49).

Bachelard’s notion of the blinding dialectic between inside and outside can be understood in systems-theoretical terms as the blind spot of the excluded third: the paradox of the observer from which the horizon of spatial possibilities emanates. In other words, place is the meaningful centre of one’s world that one sees, but also the foundation and context for that seeing (Seamon and Mugerauer 1985:8). People need “a

here from which to discover the world, a *there* to which we can return” (Relph 1985:27). Thereby, the distinction of place is a medium that facilitates the processing of a unity of difference of inside and outside. The unity of the difference of inside and outside, of system and environment is *the world* (Luhmann 1989:138).

The semantics of community describes one place as distinct from other places. Inescapably, community is reduced to either a tautology or paradox: it is what it is or it is what it is not. People conceal this self-reference by observing it as a distinction between inside and outside, between community and world. The idea is that the semantics of community refers to an interconnectedness, to a sense of inclusion and intimate relations embodied in such uses as ‘ecological community,’ and ‘sustainable communities.’ Lamb (1993:6) describes community as the “comfort zone of life.” Vitek (1996b:1) refers to community as one’s “natural place in the natural world.” That is, ‘one’s place in the world’ refers to an intimate and familiar relation of people and place. It is part of a self-observing, self-organising semantic evolution that establishes a difference between community and not-community. Place-in-the-world conditions people’s experience of difference so that the intended difference between here and there is understood as a meaningful expression not only of identity, but also of inclusion.

Summary

A systems-theoretical framework, having encountered and resolved the limitations of the normal science of community theory, opens up new possible meanings of community. At the outset, at a level of first-order observation, a focus upon the selective contingency of distinctions increases awareness of and heightens sensitivity to semantics of community.

A systems perspective, at a minimum, provokes the question: What do you mean by community? Moreover, at a second-order level of observation, one can follow this question with a question about what is not community.

A systems-theoretical framework is not only for asking difficult questions; it also helps to interpret complicated answers. The possibility of community, as has been discussed in different contexts, must always be understood as a co-evolution of semantics and social structures. By this means, we not only gain a descriptive account of the residual, dominant, and emerging semantics of community, but also gain important insights as to why people are increasingly using community as an increasingly significant societal value. In the end, whereas normal science approaches willingly accept ambiguity as an inescapable condition of the meaning of community, a general theory of society based on self-referential systems of communication accounts for this condition and advances beyond undecidables toward new possibilities. In this regard, I observed the semantic evolution of community as a question of systemness: the self-organising selective and connective capacities of community.

Semantics develops structural qualities by stabilising possibility, which, as a medium of communication, makes it possible to share meaning with different people in different situations. This in turn allows people to come to the same or similar conclusions. In an increasingly complex society, the semantics of community both facilitates communication about health, well-being, and sustainability, and acts as a catalyst for communication about inclusion. The possibility of community still to be explored, however, is the emergence of a community system.

6. OBSERVATIONS OF COMMUNITY: EMERGENCE

In this chapter I continue to examine community within a systems-theoretical framework. My interest now is to observe the possibility of a community system emerging from the self-organisation of its own semantics. Self-organising processes, as discussed in the previous chapter, are necessary pre-conditions (or pre-adaptive advances) of system formation (Luhmann 2000a). Pre-adaptive advances refer to the environmental conditions from which stability emerges. Furthermore, Luhmann contends that pre-adaptive advances are observable. Evolution presupposes a sufficiently complex world in which semantics closes upon itself and operates self-referentially. Under this condition, the evolution of systems can be specified and situated historically. “In the context of a theory of evolution, one can show that changes within socially presupposed stability conditions yield possibilities of variation and selection that are left to their own internal dynamic and lead to a rapidly accelerating, self-generated structural change” (Luhmann 2000a:237-38). This is to say that the discussion about self-organising processes within the semantics of community (might) describe pre-adaptive advances necessary for the emergence of a community system. (This is not to say that the emergence of systems can be predicted.)

Empirically, system emergence occurs at the level of semantic processing (Luhmann 1986). Therefore, to explore the possibility of a community a system is to examine the extent to which self-descriptions organise connective capacities (=structural conditions of selectivity). Self-referential systems use self-descriptions as part of their operative processes. They are not only operations of observation but also operations of self-programming, that is, self-descriptions are criteria that condition further operations.

Conditioning is a necessary process because small alterations in semantics must be either accepted or eliminated as inappropriate. The sheer quantity of possibilities demands processes of self-organised selecting and connecting.

Identifying self-descriptions of society and identifying societal systems are interrelated because self-descriptions, as a form of connectivity, are outcomes of organising self-reference. This is why the shift from negativity (of what is missing in society) to positivity (of what community is) of self-descriptions is an important semantic evolution with regard to the possibility of system formation. At the same time, all identifications of societal systems are predicated upon the ability to observe themselves and, likewise, on the ability of the system being observed.

In Chapter 4 I examined how the semantics of community are used as a weakly determinant set of self-descriptions of society. An inquiry into self-descriptions of a community system focusses upon self-descriptions as a strongly determinant structural feature of a community system. By this shift, I must distinguish between the semantics of community and the semantics of a community system. This approach does not privilege a community system over other functional systems. The same evolutionary possibilities hold for the operative closure and self-organisation of all functional systems. The social system itself is the primary bearer of socio-cultural evolution. In this sense, I do not start with the existence of a community system but attempt to observe evolving capacities of connectivity, which are not dependent upon an *a priori* community system.

Operations

The autonomy of a community system is what defines it as a specific functional domain within society. Autonomy is also the basis of its operations. Operations, as such, explain what distinguishes community as a system and, at the same time, constitute the possibility of a community system. In other words, operations are both an explanatory principle of systems and a generative mechanism of systems (Maturana 2002). In both cases, the task at the outset is to observe the operation of a community system as a basal self-referential selection – as a ‘first cut’ of the world. This cut determines what is and what is not information for a community system. Thus, a community system operation is to be understood as an observation: the specific way a community system uses one (but not the other) side of a distinction as the starting point for connecting other operations. The form of this distinction is called a binary code. The criteria necessary to distinguish between what is and what is not information for the system are called programs.

My observations of community thus far indicate that an emerging semantics of community demonstrates aspects of a self-organising process. However tentative this proposal might be, if I accept the possibility of a community system then the next task is to observe the system’s operations of acquiring and processing information. Namely, I must examine the possibility of a binary code and self-programming of a community system. These are a community system’s structural conditions of selectivity.

Coding of a community system

When the self-organisation of community semantics has been stabilised to the point where self-reference gives over to hetero-reference, the boundaries of the system begin to

emerge. A boundary, as a difference between system and environment, is symbolised as a binary code in ways that ensure connectivity. A code is an observational device of a system that cuts the world between a marked and an unmarked space. Once the first cut is made, the system always operates on the indicated side – but always, also, via self-reference. A system capable of employing a code, such as true/untrue, legal/illegal, observes both sides of a distinction without leaving the system.

Thus, we come upon another paradoxical aspect of system formation. A functional system requires a code to operate, but system operations presuppose a code. The function of the code is to ‘short-circuit’ this self-reference and to catalyse an evolutionary leap from chance events to self-organisation (Luhmann 2000). As a specialised semantic phenomenon, a binary code symbolises self-reference and, at the same time, “the differentiation of two values interrupts circularity and creates asymmetries – in short, it generates systems” (Luhmann 2000:187).

A code works in that every operation of a system is a matter of selection, a decision as to whether an observation does or does not fit. Every observation takes place within the system’s recursive network of other distinctions. A code is a basal distinction, one that ensures connectivity among selections. In this sense, a code is a special generalised symbolic medium of communication – a distinction with specific structural conditioning. A binary code “has to be able to fulfill a function which we shall designate the generation of information. It has to be able to render all the actions and inner experiences that fall within its scope identifiable as information and to provide them with an adaptive value connecting them to further experiences and actions” (Luhmann 1986:84). A system’s binary code is the difference that makes a difference.

In its binary form, a community system's basal structure knows only a code with a positive value and a negative value, without the possibility of a third. I propose that a community system employs a preferential code of inclusion/exclusion, wherein inclusion and exclusion refer to the way persons are taken into consideration in the communication processes of social systems (Stichweh 2002). A necessary feature of a code is that it must correspond to the system's function as a guiding difference. The idea proposed in the previous chapter is that the evolving semantics of community functions to make visible possibilities of order that would otherwise remain invisible. This same argument applies to a community system. The code inclusion/exclusion relates to a community system's function of making available a common view of the world as a differentiated entity in a functionally differentiated society. In its asymmetrical form the positive value of inclusion is used within the system as a basal form of connectivity that operationalises (de-paradoxises) the paradox of equality.

With increasingly complex self-descriptions, of multiple views of the world, and of a growing sense of exclusion, people seek an alternative to the self-descriptions of the economy, law, science, and other dominant systems. The semantics of community, I argue, evolve its own connective capacities as an alternative self-description of the world. As an outcome of evolutionary self-organisation, the notion of 'goodness' as an ultimate value of community stabilises and persists as a functional code of inclusion/exclusion.

I leave open the question about how concretely the code inclusion/exclusion might be used by a community system to determine what is and what is not community. Doing so is justified by a similar approach Luhmann (2000a) uses in his study of art. There are two aspects of his argument relevant to the coding of community systems.

First, Luhmann states that although a code is essential to system formation it could be more difficult to specify the names of the code values for some systems than for others. Second, the specificity of a system can reside less in the names of the code values than in the structural conditions (e.g., programs) that render these values asymmetrical.

Programs of a community system

The function of a system's code is to generate information as a means of securing its operations. The coding itself distinguishes between a positive and negative value, e.g., between inclusion and exclusion. Codes do not operate in isolation; they are mediated by further conditions. One needs other distinctions in order to distinguish between correct and incorrect selections of inclusion and exclusion. This is the function of programs. Programs operationalise and regulate codes; they are the criteria that determine what is and is not a code-specific difference (Luhmann 1989). For example, if we take 'true' and 'false' as a binary code, we can see that true cannot be applied to determine what is true. The reasoning is tautological. The criteria provided by programs must be available to process the difference between true and false. In a community system, such distinctions as belonging/not belonging, place/placelessness, and personal/impersonal function as criteria (programs) for the code of inclusion/exclusion, i.e., as structural conditions of selectivity and connectivity.

Programs are self-organising processes of distinguishing distinctions. "It is possible, in other words, to condition the system in such a way that it can decide which values are to be selected under what condition" (Luhmann 2000a:186). Distinctions like belonging/not belonging, place/placelessness are both explanatory principles and

generative mechanisms of system formation. Programs constitute their own conditions of possibility: a program is the result of the operations it programs. Once a system begins to differentiate itself (e.g., as one's place in the world) programs are necessary for its selectivity and connectivity. "The entire process begins to orient itself recursively, generating a demand for criteria and a need for structure, which stimulate an evolution capable of preserving striking occurrences for the sake of repetition or deviation" (Luhmann 2000a:228). Thus, the problem of selection occurs on the observational level of self-programming.

Programs are self-descriptions of a community system that possess structural qualities. For example, there are several familiar self-descriptions used in everyday situations, such as insider/outsider, newcomer/oldtimer, from here/from away, and community/wider community. Stichweh's discussion of strangers appears relevant in this regard: "By including or excluding strangers...social systems define at the same time what is for them normally and legitimately understood as their collective identity" (Stichweh 2002:106). Generally, self-descriptions revolve around some form of distinctiveness; they are available as programs to negotiate similarities and differences.

As discussed in the previous chapter, the emerging semantics of sustainable rural communities provides a number of examples of how the semantics of community focusses upon self-reference. In the context of system, these semantics of community can now be observed as self-descriptions of what is included and what is excluded from a community system. These self-descriptions refer to rootedness, ethics and esthetics that connect and sensitise people to their surroundings, and values and ethical responsibilities. These self-descriptions, generally, account for a world that is understandable, intimate,

and close. In this sense, ‘one’s place in the world’ can be observed as a self-description of a community system. Without getting into further details of the discussions of the previous chapter, two points elaborate upon how community can be observed as a system. First, the need to describe a world that is close and comprehensible is central to the systems-theoretical understanding of intimate relations. Second, the idea of a close and comprehensible world is also found in a phenomenological understanding of place as a point from which one experiences a world.

The structural qualities of programs relate to the function of a community system, which is based on its self-observation as a difference between system and environment (Luhmann 2000b). The function of community is to make visible the possibility of a common world in a society whose functional differentiation makes this highly improbable; it makes probable a common view of the world as a differentiated entity. “[Modern] society needs to have its ‘free’ zones that communities provide, special enclaves where new adventures can be undertaken, new relationships explored, where the game of life can be played by different rules. In these free spaces you can explore who you really are, dying to the old and awakening to the new” (McLaughlin and Davidson 1985:346). It is in these ‘free’ spaces, I propose, that a community system produces its own set of rules. I will explore this possibility further by drawing upon observations of shared practices.

Shared practices

An emphasis upon rules of inclusion/exclusion has a corresponding emphasis upon the social dimension of meaning, in which consent, dissent, and consensus fulfill the role of

medium. A community system does not rely strictly upon *shared beliefs* as a basis for consensus. Rather, meaning also derives from shared *practices*.

Lee (2000) argues that shared beliefs and ideas do not appear to integrate people. This conclusion is based on his study of an Old Order Mennonite settlement. Members are united by their behaviour in everyday life – their common practices, rituals, and conformity to rules. “When members of a social group act according to the same rules, society becomes possible” (Lee 2000:vii). I would change Lee’s statement to indicated that *community* becomes possible when members of a group act according to the same rules. Lee argues further: “An individual’s own religious convictions may be of great personal value but they do not equip one to be social. Religious beliefs and ideas are inside people, but rituals are *between* them” (Lee 20002:vii-viii). Lee’s conclusions support the idea that shared practices can be the basis for consensus in a community system. Further, such shared practices fulfill the function of a program that determines what is included and what is excluded from a community system. With regard to the role of symbols, rituals, emblems, and names, England (2002) comes to a similar conclusion that these are part of a community system’s self-referential operations.

Lee’s thesis counters classical views of community. He points out that Redfield, for example, was convinced that the members of ‘traditional’ communities share the same beliefs and that a ‘folk society’ could be studied by learning about what goes on in the minds of a few of its members, if not a single member. As a counter to this classical view, Lee argues that, in the symbolic construction of community, “members depend on rituals and symbols for the simple reason that their own personal beliefs cannot equip them to be social” (Lee 2000:143). Further, according to Cohen (1985:16), “symbols do

not tell us *what* to mean, but give us the capacity to make meaning.” Or, as one member stated when accounting for the possibility of shared meaning, “The proof is community.”²²

Lee draws upon Luhmann’s theory of systems-theoretical processes of communication to support the distinction between thoughts of the mind (psychic systems) and acts of communication (social systems). On this basis, personal beliefs can be separated from shared practices. “Individuals cannot change the fact that their thoughts remain hidden in the mind” (Lee 2000:143). Lee observed that the Mennonite settlement had its own socially constructed, internally meaningful code of conduct, which Lee described as a self-referential system that maintains authentic group membership. “By selecting one rule after another, their ability to communicate as a society has been established” (Lee 2000:82).

As Lee observed in his research, the members of the Mennonite settlement enforce collective conformity to group practices, but rarely seem concerned about regulating conformity to group beliefs. “A shared belief is artificial and cannot arise without this active and creative process [of inventing, articulating, adopting, disseminating, and constantly protecting] – it is a social construction and must be propagated” (Lee 2000:147). Consequently, “symbols, rituals, emblems, and names are powerful sources of social integration even if the members of a group do not attach the same meaning, motivation, or interpretation to them. Individuals are united in a community because they share the same signs and rituals, but they share these things

²² This comment was recorded as part of an interview I conducted in January, 2003, for a book chapter about the shared practice of sustainable agriculture in intentional communities. We were discussing the dynamics of interviewing a group of members about their common vision versus one-on-one interviews. The interviewee commented that the process would be different and that the proof of the difference is community, i.e., in the possibility of community.

without sharing their meanings” (Lee 2000:151). In short, “Orthopraxis does not require orthodoxy” (Lee 2000:156).

Based on Lee’s ideas, it is possible to build upon a systems-theoretical foundation of shared practices. First, I re-introduce the concept of interpersonal interpenetration. This refers to the relationship between communication and psychic systems. The concept of interpersonal interpenetration is necessary because psychic and social systems are each operationally closed. Which is to say that one’s experience of a close world can never be totally accessible to another person. Necessarily, interpersonal interpenetration functions only at the operational level of a system (Luhmann 1986). Shared practices of community systems function in the same way, that is, as a means of connecting thoughts of the mind and communication. As has been emphasised, what is important in intimate relations is validation of self-portrayal or, in other words, to find meaning in the world of someone else. Shared practices function, as Lee argues, as criteria for authentic group membership and, in the semantics of code, for authentic inclusion.

We can also speak of interpersonal interpenetration as connecting actions to inner experiences. With the possibility of anticipating what another thinks, one can orient oneself towards the inner experience of the other person (Luhmann 1986). Inner experience means “that the system refers to its environment in the attribution of particular facts and occurrences” (Luhmann 1986:23). The medium of shared practices functions to make the possibility of orienting to another’s inner experiences possible. The semantics of community, as a symbolically generalised medium of inclusiveness, motivates one to act, to accept another’s inner experiences as valid. And, since this always occurs under a

condition of double contingency, shared practices function also as a basis for affirming self-portrayal in a common, differentiated world.

Intentional communities: an example

The possibility of observing a community system is perhaps most evident in observations of ‘intentional communities.’ Before discussing intentional communities as an observation of a community system, a brief introduction provides a supply of examples for subsequent discussions.

The Fellowship for Intentional Communities²³ (2002) provides a general description of intentional communities.

An ‘intentional community’ is a group of people who have chosen to live or work together in pursuit of a common vision. Most, though not all, share land or housing. Intentional communities come in all shapes and sizes, and display amazing diversity in their common values, which may be social, economic, spiritual, political, and/or ecological. Some are rural; some urban. Some live all in a single residence; some in separate households. Some raise children; some don’t. Some are secular, some are spiritually based, and others are both. For all their variety though, the communities...hold a common commitment to living co-operatively, and to sharing their experiences with others.

More narrowly, “An ‘intentional community’ is a group of people who have chosen to live together with a common purpose, working co-operatively to create a lifestyle that reflects their shared core values...each of these groups places a high priority on fostering a sense of community – a feeling of belonging and mutual support that is increasingly hard to find in mainstream Western society” (Kozeny 1996).

Distinguishing among eco-villages, intentional communities, and communes helps to illustrate a more strict use of the term. An eco-village, or ecological community

²³ The Fellowship of Intentional Communities was founded in the United States in 1960. The Fellowship was reincorporated in its present form in 1986, with a name change to the more expansive Fellowship for Intentional Community (Questenberry 1996).

(as discussed in Chapter 5), is focussed primarily upon living according to ecological principles (e.g., permaculture). A commitment to communal living is at best secondary to ecology within eco-villages. Intentional communities are identified as social groups (Metcalf 1995) in which a commitment to communal living is primary; ecological principles are secondary, yet inseparable. An intentional community is not a commune. “‘Commune’ members place the group ahead of (or at least equal to) the nuclear family unit, generally maintain a ‘common-purse’ and collective household, and make intimate and trivial, as well as general policy decisions as a group...By sharing everyday social life and facilities, a commune emulates family life by becoming a communal or extended family” (Metcalf 1995:11-12). In contrast, an intentional community is not a form of family; it is a conservative form of sharing and usually consists of a number of families (Cock 1979).

With this understanding of intentional communities, I will illustrate the possibility of a community system by drawing from the literature. Specifically, I will use examples to illustrate how the semantics of intentional communities describes its own set of rules of inclusion that, in turn, makes available a common view of the world as a differentiated entity in a functionally differentiated society. In its broadest sense the concept of intentional community encompasses most of what has been discussed about community thus far. The concept refers to community as togetherness, a human settlement, rootedness in place, ecological harmony, spiritual consciousness, and sustainability. Thus, the semantics of intentional communities is not necessarily different from but rather an extension of discussions about self-organising processes within the semantics of community.

I will begin by looking at how the semantics of intentional communities reflects the shift from negativity to positivity. In this way, we can also observe how an intentional community acquires a motive to describe itself as a difference between system and environment. This is evident, for example, in the semantics of ‘alternative.’ Cock (1979) argues that as part of the semantics of community of the 1970s ‘alternative’ changed meaning. ‘Alternative’ no longer referred to the dropout image of the counter-culture in opposition to the mainstream as it did in the 1960s. Rather, “The counter-culture tended to look inward for personal transformation; ...alternative seekers looked more towards the community and the environment as the motivator for personal change” (Cock 1979:141). I argue that it is this move toward community that is important. The change from an oppositional counter-culture to a positive statement of order and security represents a shift in the semantics of community from describing what is missing in society to organising processes of self-reference.

Looked at from the perspective of motivations, the shift from negativity to positivity is a shift from a paradoxical interpretation of ‘alternative’ to a tautological interpretation. Luhmann explains the difference. “[D]epending on whether tautological or paradoxical approaches to self-descriptions are selected, *very different semantic systems emerge*. Tautological approaches lead to rather conservative self-descriptions, approaches based on paradox lead to rather progressive – if not revolutionary – self-descriptions. The basic problem of self-reference generates the antagonism between the two approaches” (Luhmann 1988b:28; *emphasis added*). A paradoxical use of ‘alternative,’ i.e., community refers to what society is not, leads to the counter-culture interpretation. A tautological use of ‘alternative,’ i.e., community is what it is, privileges

self-reference. For example, here is how Metcalf describes members of an intentional community: “Their approach has not been so much to change society on the macro-level, through the political system, but more to change it on the micro level, through their own collective social reality. Instead of just complaining about...society, they have set out to create a new society” (Metcalf 1995:8). This description illustrates that the semantics of ‘alternative’ has evolved from being a (negative) self-description of modern society to being a (positive) self-description of a community system. The different interpretations of ‘alternative’ make sense when one considers that ‘alternative’ might be referring to different systems. Hence it is important to observe the observing system.

At an intimate level, the semantics of intentional communities refer to a modern expression of commitment to communally shared rootedness. For example: community refers to a “dynamic model of intentionality” (Smale 1995:99); “communities nourish the power of intentionality itself” (Spangler (1985:xi). As evident in these two quotations, intentionality refers to more than locality and to more than togetherness. By this I suggest that the semantics of community has acquired additional dimensions of connectedness and new dimensions of ‘having in common.’ Several other quotations from Cock support this notion of intimate relations. To live in community is a “desire to share, to co-operate with, to care for, and to be cared for by a community of friends” (Cock 1979:224). In effect, the personal and the communal are co-evolutionary. “Alternative seekers wanted to create a personal environment, which was enhanced by a community life. They wanted to integrate fragmented aspects of their lives” (Cock 1979:224). “They sought escape, to live off the strengths of the community...Alternative seekers saw in a community the attractions of belonging, and knowing others besides their immediate kin, in comprehensive

ways...Alternative communities were the core social units of the alternative society, and the basis for a strong personal environment” (Cock 1979:225).

The idea that a community system describes itself as a close and comprehensible world, as an intimate and familiar relation among people and place, can also be observed in the semantics of intentional communities. For example, Cock (1979) described people interested in living in community as follows: “In creating alternative communities, they were choosing to centre their worlds in their immediate environment” (Cock 1979:224). Yankelovitch (cited by McLaughlin and Davidson 1985:10) states: “Here is where I belong, these are my people, I care for them, they care for me, I am part of them, I know what they expect from me and I from them, they share my concerns. I know this place, I am on familiar ground, I am at home.” Similarly, McLaughlin and Davidson (1985:346) write: “We feel a sense of security and intimacy that comes from connectedness with others and with nature.”

Having its own set of rules is a significant aspect of observing community as a system, as illustrated in the following description of the intentional community Moora Moora, located in Australia. “An intentional community like Moora Moora is a substitute for our tribal history. It is vulnerable because it is intentional rather than a taken-for-granted reality which has been handed down through generations. It takes a long time for community to become real, for custom to overtake rules, the informal the formal” (Cock 1995:159). Within intentional communities, principles of ecological living set forth how one should live. Selected observations illustrate the point:

The experience of eco-spirituality involves coming to the realisation that each person is a part of a larger reality – developing a sense of self that reaches out to include community, Gaia, and the universe. Such a realisation is facilitated by living in community and by living intimately with species. If you should take the

risk to venture into community, then be assured that you will learn more about yourself, about us and living with this planet than you ever dreamed possible (Cock 1995:168-69).

Buddhist meditation and bio-dynamics are important factors in making Dharmananda one of Australia's best intentional communities, a place where spirituality, sociability and good environmental management merge (Davison 1995).

At a fundamental level, such rules of communal living function as a program of social order, as a way of experiencing the world, and as a guiding difference between a community system and its environment.

The purpose of this chapter has been to observe the possibility of a community system and, in so doing, complete a set of possibilities of observing community within a systems-theoretical framework. By drawing upon the semantics of intentional communities my intent is to illustrate a theoretical account of a community system. In this way, the semantics of intentional communities illustrates how a community system operates by constructing a common world as a differentiated entity. Rules of inclusion, such as the principles of ecological living, provide structural conditions of selectivity. It is the possibility of describing a community as one's place in this world, as a close, intimate relation with people and place, that both distinguishes community as a system and, at the same time, constitutes the possibility of a community system.

7. DISCUSSION

In this chapter, I present three topics for discussion: existing community theory; comparison of a community system with other functional systems; and, opportunities for and obstacles to future research. Each topic extends debate about the possibility of observing community within a systems-theoretical framework.

Community theory re-visited

A systems-theoretical understanding of community can be discussed in relation to existing community theories. Community theory, generally, reflects both empirical aspects (what it is) and normative aspects (what it ought to be) of community. Both sides of the argument (i.e., those who refer to descriptive aspects and those who refer to normative aspects) have to resolve problems of definition and conceptual ambiguity. Underpinning these problems are the limitations of normal science approaches. A systems-theoretical approach presents a new perspective on the inherent ambiguity, self-reference, and ontological limitations of community theory and, in this way, offers potentially new insights.

Observing the semantics of community is not only about identifying distinctions. Such an approach merely re-orientates debate about what community is. Such distinctions are always contingent; they are never absolute nor reveal the essence of community. A theory of community based on typologies, for example, can now be observed as semantic constructs of difference used to compare and contrast differences. In systems-theoretical terms, typologies are functionally equivalent solutions to the problem of society attempting to describe itself.

A related issue is the debate among community theorists that centres upon the distinction ‘community’ and ‘the community.’ The statement “I want to live in *community*, but not in *the community*” illustrates the difference. Another distinction that is the subject of debate is place-based versus non-place-based community. While these debates have generated valuable research and significant theoretical insights to how we understand community, they also illustrate the limitations of first-order observations. Debating distinctions that are necessarily contingent constrains the conceptual possibilities of community between the bounds of what it is and what it ought to be. But the possibility of community is presupposed or, more accurately, generated by the distinction of choice. Consequently, the only option within the normal science of rural studies is to debate what community is or what it ought to be.

A brief comment on existing theories of community as a system is appropriate within the present discussion. Sanders (1966) and Warren (1963, 1978) developed two of the often-cited systems theories of community. Both theorists embraced an early open systems approach. With regard to sociocybernetics and other recent systems theories, few community theorists have applied second-order approaches to understand community. Barbesino (1997:702) “suggested a few hints” about how to apply Luhmann’s work to a theory of community. Schechter (2002) provided an account of community as a self-description of society. England (2002) described autopoietic community systems using empirical evidence. Lee (2000) used the communicative aspects of Luhmann’s work to support a theory of community as shared practices. Each of these ‘second-order’ theorists contributes to a systems-theoretical understanding of community, which have been incorporated into this dissertation.

To gain a broader perspective, I will discuss how three existing theories of community relate to the points discussed in this dissertation. The three existing theories represent community theorising typical of the 1950s, a contemporary community theory, and a theory of community that resonates with social systems theory. Through this review I illustrate how a theory of self-referential systems presents a new avenue of inquiry into the meaning of community where existing avenues encounter limitations of normal science approaches.

Nisbet's quest for community

Nisbet's (1964; first published in 1953) theory of community is typical of normal science approaches. His starting point is that community is a realm of small, primary, personal relations that "springs from some of the powerful needs of human nature" (Nisbet 1964:73). Nisbet then casts an argument about the "loss of community" within a society dominated by rising individualism, a higher concentration of political power, and social disintegration (Nisbet 1964:xix). In this sense, community refers to what is missing in society and to nostalgia of a "greater community and moral certainty of the generations preceding ours" (Nisbet 1964:31). The real problem, he argues, is not the loss of community but the "failure" of modern society to uphold the values of community.

While Nisbet argues for a new understanding of the complexity of community, his options are constrained by assumptions of his normal science approach. Nisbet assumes that community is a universal form of social organisation that spans centuries and cultures, and also assumes that community mediates between individuals and society.

Consequently, Nisbet re-conceptualises community as a healthier balance between individualism and a State-dominated society.

A consequence of Nisbet's approach is that in order to examine social conditions of change he separates social from political. This distinction is closely related to his distinction between community and the State. He defines social as small areas of membership and association in which values of personal relations dominate. The similarity between social and community suggests that Nisbet's community theory and object of study are inseparable. Inevitably, without a general theory that accounts for Nisbet's initial distinction between social and political, he encounters a paradox of self-reference. That is, in his quest of community, Nisbet contends with the paradox of a socially free individual in an omnipotent state, of individual rights in a collective form of social organisation, and of valuing progress while venerating tradition.

In the end, Nisbet can only conclude that people are suspended between two worlds, one of allegiance to an historic world of community values and another of association with a political community of centralised power. This, Nisbet states, is a position of danger and of hope. To me, this final distinction merely conceals Nisbet's inability to resolve the paradox of self-reference upon which his theory is based. Because Nisbet is unable to transcend the normal science of community theory, he is constrained to empirical descriptions of what community is and to normative prescriptions of what community ought to be.

Wilkinson's interactional field

Wilkinson (1970, 1991), a leading contemporary community theorist, attempts to recognise the complexity of community through a theory of interactional fields. “There is more to it than interaction, and not all interaction is community; but interaction is the essential ingredient. Any theory of community must first be a theory of social interaction...” (Wilkinson 1990:152). This interactional approach grew out of what Wilkinson described as “a crisis in community theory in the wake of the passing of the long-dominant functional model” (Wilkinson 1990:154), which is a systems view of community as a functionally integrated whole concerned with boundary maintenance and reinforcing social order (Wilkinson 1991). Such a view of systems, however, is not consistent with a theory of self-referential systems. Contrary to Wilkinson’s concern for systems thinking, his concept of field is interchangeable with many aspects of systems thinking. For example, both field and system can be variously described as a process of interrelated actions that emphasises “the dynamic, emergent aspects of community life” (Wilkinson 1991:33) and “an unbounded whole with a constantly changing structure” (Wilkinson 1991:35). On this basis, I suggest that a theory of community as a self-referential system may build upon the theoretical contributions of an interactional field theory of community.

Wilkinson’s interactional field theory, however, is bound by ontological assumptions of normal science approaches. As discussed in Chapter 2, the interactional approach attempts to take leave of the individual-community-society schema by distinguishing a community field as an emergent interaction. Wilkinson does not rid community of its ideological and normative undercurrents but introduces a new,

apparently unconstrained, concept of field. A community field is theoretically situated within a concept of community that Wilkinson describes as the “setting and mechanism of empirical contact between individual and society” (Wilkinson 1991:3). Which is to say that community is still posited as a given object of social order, in spite of Wilkinson’s efforts to recognise the complexity of a community field.

Cohen’s symbolic construction of community

Cohen’s (1985) theory of community as a symbolic construction has particular resonance with a self-referential theory of community. Several concepts are shared between the two theories, including meaning, identity, unity of difference, and boundaries. Further, Cohen’s theory is premised upon self-reference, although without suggesting a theory of self-referential social systems. The following lends insights to how a systems-theoretical approach can be used to complement Cohen’s theory of community.

Positing a relationship between self-reference and symbolic interactionism is a useful way to present the similarities of Cohen’s work. Self-referential systems require symbolic generalisations to enable meaning to be made available again and again. These generalisations form expectations that indicate what may be foreseen in any given situation and, conversely, expectations also guide generalisations. On the other hand, symbolic interactionism refers to the process of individuals reaching common understanding through interaction via the use of language and other symbol systems (Babbie 1998:45). Cohen extends this notion to the creation of community: “People put down their social markers symbolically, using the symbolic vocabulary which they can most comfortably assimilate to themselves, and then contributing to it creatively. They

thereby make community” (1985:28). Cohen stresses that these relationships are more important contributors to social identities than an abstracted sense of society.

Meaning is also an important concept for Cohen. Cohen’s study of community is “to construct a symbolic community which provides meaning and identity” (Hamilton 1985:9). In Cohen’s concept of community, the relation between meaning and symbols is paramount. In this, he conceives of community as a system of values, norms, and moral codes that provides a sense of identity within the bounded whole to its members. As such, meaning functions within Cohen’s theory as it does for a systems-theoretical understanding of community.

Similarly, the unity of difference is significant for Cohen. The semantics of community implies simultaneously both similarity and difference that embodies a sense of boundary; it is a boundary-expressing symbol: “It continuously transforms the reality of difference into the appearance of similarity” (Cohen 1985:21). This notion corresponds with self-reference. Like Luhmann’s reproduction of communicative events, Cohen’s reproduction of difference constitutes and gives reality to community. And, for the meaning of community to persist “the consciousness of community has to be kept alive through manipulation of symbols” (Cohen 1985:15). As Luhmann’s structures facilitate the processing of meaning, Cohen’s symbols give people the capacity to make meaning.

Underpinning the similarity between a theory of community as symbolic construction and as a self-referential system is a similarity between Cohen’s processing of symbols and a systems-theoretical processing of meaning. The concepts appear to possess some inter-changeability. For example, it is through the meaning-making process that self-reference appears in Cohen’s theory of community.

When a group of people engages with some other, it has to simplify its message down to a form and generality with which each of the members can identify with personal interests...However, the formulation of such general positions for communication to another party often also feeds back into the community to inform its sense of self, and thereby embellish its symbolic boundaries (Cohen 1985:35).

This statement by Cohen resonates with systems-theoretical concepts of interpersonal interpenetration, cybernetics, connectivity, boundaries, as well as the distinction between personal and impersonal relations.

The differences between Cohen and Luhmann's works are significant however, and not merely a matter of slightly different interpretations or expressions of concepts. Most importantly, Cohen works within the bounds of normal science. Cohen views community as a forum where an individual learns and continues to practice how to "be social." Community is an entity to which one belongs that is more immediate than society. In this sense, Cohen clearly works from the individual-society schema.

Cohen's community is also premised upon a theory of subjects or, at least, the interaction of subjects that "hinges crucially on consciousness" (1985:13). Cohen states, for example, that consciousness of community is constituted by people in interaction. The symbols of community are mental constructs that provide people with the means to make meaning. "In so doing, they also provide them with the means to express particular meanings which the community has for them" (Cohen 1985:19). Luhmann rejects mental constructs and consciousness as the basis for social systems: communicative events are the elemental units, not subjects, consciousness, or actions. While Luhmann agrees that the use of symbols is an important aspect of dealing with contingency, he takes exception to a subject-action foundation.

Further, symbolic interactionism treats the problem of contingency “only from one side of the interaction, assuming that all is the same on the other. It treats, so to speak, only half of the double contingency and thereby remains a theory of action” (Luhmann 1995a:108). On this account, Cohen’s theory of the symbolic construction of community is not a sufficient basis to explain how community emerges. Only through double contingency do systems emerge as an outcome of two persons making their acts contingent upon the other. A system using communication to process meaning emerges as the only stable form of structure. This, however, cannot be grasped via the basic concept of interaction.

Thus, while Cohen’s theory resonates with a theory of self-reference, it is at the same time constrained by a normal science approach. Nevertheless, Cohen’s symbolic construction of community is an attempt to overcome other conceptions of community “as a structure of institutions capable of objective definition and description” (Cohen 1985:19). In this regard, significant differences exist among ‘normal’ community theorists, Cohen, and self-referential systems.

Comparison of functional systems

This inquiry has focussed primarily upon the functional relation between community and society. I will now discuss implications of what it means to think of community as a system in relation to other functional systems (e.g., economic, legal, political, science, religion, art). From a societal perspective, a community system is functionally equivalent to other functional systems: each system makes the improbability of communication in modern society probable. Like other functional systems, a community system has no

purpose other than to reproduce its own elements and structures. When this autopoietic process ends, so does the system. This perspective of functional equivalence provides a context for discussing the implications of a community system vis-à-vis other systems.

Through an evolutionary process of system development society attains highly organised capacities. Functional systems dominate because they are ‘better’ organised to deal with complexity, contingency, and paradox. In other words, functional systems ‘simplify’ experiences of an increasingly complex society. For example, systems that depend on myth and tradition are displaced by systems that are ‘simpler.’ Simpler in the sense that a strict binary code, to pay or not to pay, for example, is more functional and more likely to be autopoietically reproduced than religion, which is multi-functional.

Luhmann describes this evolutionary process as a resolution and re-organisation of the structural redundancies of society (Luhmann 1989:110). Redundancy is about “multiple certification of a function.” Strict binary coding has greater capacity for processing meaning than multiple certification. As a result, multi-functional systems, like family households, moralities, and religious cosmologies, have been displaced by functionally specific ones, like economics, science, law, and politics. In contrast to multi-functional systems, functional systems survive because they mobilise processes of positive feedback to their own advantage. The system of accounting, for example, illustrates the point. As discussed previously, the system of accounting is self-referentially organised and autopoietically reproduced. Accounting uses a specific and strict binary coding of debit and credit, which is elaborately supported by self-selected rules or programs. The process of using positive feedback to its own advantage is evident in the professionalisation of accounting and its corresponding processes of certification.

The certification of accountants can only be achieved by following self-selected rules, thus the system positively re-inforces itself through its self-designed feedback loops.

This account of functional systems does not preclude the possibility of other systems; it only accounts for why other systems are not dominant. Theoretically, functional equivalence means that community can be compared on an equal basis with other systems. It also means that community need no longer be restricted to descriptive and normative aspects of social order. Two examples illustrate this point.

Example: community economic development

As a point of illustration, I will briefly discuss a community system in relation to the concept of community economic development. Community economic development is often described as an idealised view of self-reliance and local-based action set against a very large and externally controlled organisation of economic life. This semantics of community imparts a sense of goodness upon economic development and, at the same time, motivates the inclusive practices of participation, empowerment, and consensus. Such values idealise economic development: community is either descriptive of what is local or appeals to what ought to be done in terms of local control, power, and choice.

An understanding of community economic development changes when one changes system reference, when one moves from the semantics of community within economics to the semantics of a community system. Because an economic system and a community system are functional equivalents, people have equal access to each system. This enforces selection. Community economic development can now be observed as a question of system reference: Is the observing system community or economics? System

reference directs how local control, power, and choice are interpreted. This is because an interpretation of community economic development is predicated upon, among other things, the theory of operational closure. For example, Douglas describes community economic development as “a process through which development *of* the community is pursued *by* the community” (Douglas 1994:26). Once one selects community as the system reference, of the community by the community is the *only* possibility. It is the only possibility because of the operational closure enforced by complexity.

This (too) brief discussion of community economic development illustrates that community need no longer be viewed as either descriptive or normative. We can distinguish between the semantics of community and the semantics of a community system. This applies not only to community economic development, but also to similar concepts predicated upon the semantics of community, such as community development, community capacity building, community empowerment, etc. Primarily, the notion of functional equivalence shows how accepting community as a social system provides an interpretation in addition to the normative and empirical descriptions of community theory. Ideological appeals are re-constructed as system function. The value-laden aspects of community persist, but these values can now be observed as matters of semantic stability, of system reference, and of operational closure.

Example: intentional communities

The possibility of a community system has other implications for system-to-system relations, as evident in the practices of intentional communities. Ownership of land illustrates an important relation between community and economics and law. Two

distinctions are necessary to introduce this discussion. First, there are different ways to structure a communal settlement. Their organisation can be based on how the property is owned: private ownership, much like a typical Canadian rural village or hamlet where lots in a settlement are owned separately; a condominium-type ownership, in which there is a two-tiered ownership structure consisting of both private and shared ownership; and communally-shared ownership, in which all members own a share of the property. In the latter case, members can own their houses but share ownership of the land. The second point is that the existence of a communal settlement does not mean that there is a community. Each communal settlement, for example, can describe itself as a community or aiming to be a community. In this sense, the semantics of community does not necessarily refer to a physical settlement; a community system and a settlement are distinct concepts.

Based on conversations with members²⁴ of different types of communal settlements (intentional communities, eco-villages, and permaculture hamlets) there is general agreement that private ownership of land is a significant barrier to forming community. Members stated that the reason private ownership of land is a barrier to community is because individual members had a place to retreat to when conflict arose or if they were not interested in participating in communal activities. In systems-theoretical terms, type of ownership is a structural condition of the differentiation of system-to-system relations. In this case, the relation is described as a distinction between public and private space. Shared ownership of land is a form of inclusion not only related to legal ownership but also related to a shared sense of responsibility and belonging to the

²⁴ The ideas expressed here are based on brief visits to communal settlements in Australia, discussions with various members, as well as discussions with social scientists who have written books on the subject, namely, William Metcalf and Peter Cock.

settlement. Conversely, private ownership divides responsibility at the convenience of the individual member. There are other similar structural conditions variously employed in communal settlements. These include, for example, income sharing and governance. With regard to the latter, intentional community practices are strongly oriented to consensus-based decision-making processes, conflict resolution, and communication. Each practice emphasises inclusion of all members.

Each of these structural conditions can be observed as a reformulation of system-to-system relations. If we view these structural conditions as part of a community system's self-programming, then they can also be understood as part of a community system's differentiation. In this way, it is possible to describe the common ownership of property as a 'de-differentiation' of or 'counter-differentiation' to the structural conditions of modern society. When functional differentiation of modern society dominates communal settlements, the emergence of a community system is suppressed because the paradox of equality/inequality re-forms (is revealed) and the possibility of inclusion dissipates. Thus, the function of community systems, as discussed above, is to make available a common world as a differentiated entity. In effect, a community system cannot be a mirror or a micro-cosm of society. A common world as a differentiated entity is not the functional equivalent of modern society.

Alternatively, one can speculate theoretically that a community system is a functional equivalent of a segmentary system within modern society. As discussed above (Chapter 3), segmented societies were organised around very small units of primarily face-to-face interaction and elementary knowledge of the surrounding geographical space. The emergence of a community system as the functional equivalent of a

segmentary system does not deny the existence of other systems nor should it be understood as an attempt of people to isolate themselves from the rest of society. Such descriptions are best applied to some communes, which attempt to create their own society. As is the case with all functional systems, the formation of a functional equivalent of a segmentary system is a matter of system autonomy and, as such, can be observed as part of modern society's functional differentiation.

Future research

Much work can be done to advance a theory of community as a self-referential system. The theory will inevitably co-evolve with empirical study and case applications, which also suggests what might be done to advance the theory. The following represents a brief reflection upon how to build upon the foundation for a theory of community as a self-referential system developed in this dissertation. Generally, it is important and necessary to conduct more detailed research in each area. The following itemises particular aspects that may be starting points.

A more detailed historico-cultural analysis will lend greater insight to the semantic development of community in the transition from a stratified to functional society. By doing so, this will also inform the relationships among individual, community, and society. In a similar way, the semantics of community can be explored as it relates more specifically to the development of community theory. A focus upon academic debate within community theory is likely to inform the relationship between semantics and broader social-structural conditions.

There are a number of avenues to explore contemporary semantics of community. One of the greatest challenges and opportunities is to deal with the proliferation of the use of community not only in academics but also in public policy and the mass media. In each case, content analysis can start with quantifying the increasing use of community. One can also review existing ethnographic community studies. Another avenue of inquiry is the intentional community literature and the broader movement. As argued, this area exemplifies intriguing aspects of the emerging semantics of community and of the 'de-differentiation' of modern society. These communal settlements can provide opportunities for cases study and ethnographic research.

It is important to acknowledge that systems thinking has been criticised within rural studies, as it has in other areas of research. This is a debate that must be taken up as part of advancing a theory of community as a self-referential system. System theory, while richly developed, remains controversial. Much of this is directed at the 'older' theories of systems as either whole or open systems. In particular, Parsons's work has been criticised for its apparent inability to deal with change and its promotion of the status quo (see, for example, Colomy 1992; for an earlier critique see Martindale 1965). For some, this systemic approach conjures up notions of community as a functionally integrated concrete totality (as noted above, for example). This criticism, however, is premised upon a functionalist methodology based on a humanist philosophy, as opposed to a 'post-humanist' philosophy. Agency is a dialectic condition of structure only within the humanist approach. It remains open to debate and continued development to see how useful a post-humanist view reflects the conditions of modern society.

The humanist concerns take on another dimension in Luhmann's general theory of society as systems of communication. For example, an important question is: What might be lost in using the concept of self-referential social system for understanding community? The use of systems is often criticised for being de-humanising (Mingers 1995). Thinking about community as a system of communication – separate from psychic and bodily systems – re-enforces this perspective, especially when dealing with something as personal and intimate as community. In this context the abstract nature of the theory presents itself as a limitation to further advancement.

A related problem cited with regard to Luhmann's theory, and social systems theories generally, is the difficulty associated with applying concepts and theories from the natural sciences to the social sciences. Central to recent debates is autopoiesis. Developed initially within the field of biology by Maturana and Varela, autopoiesis is usually applied to living systems (organisms). The question remains as to how well it may be applied to social systems (Mingers 1995). This reflects a broader debate as to whether social systems are or are not living systems. Mingers raises additional concerns about boundaries, a proper distinction between organisation and structure, social differentiation, and functionalism. Luhmann, himself, admits that, "At present there are neither adequately developed nor generally perceived (not to mention generally accepted) theoretical foundations for this theory" (1995:8). Each concern presents a limitation that must be addressed as part of the application of Luhmann's theory to the study of community.

These criticisms, however, do not necessarily reflect contemporary system thinking. Work completed over the past twenty years provides an opportunity to explore complexity as an alternative theoretical approach to studying community. As stated

previously, how one studies community is constrained by how one understands the study of community. Likewise, how one studies systems is constrained by how one understands the study of systems

This brings us to both a limitation and opportunity for further research. While there are good English translations of Luhmann's work, an ability to read German is necessary to advance new ideas, to explore new possibilities, and for acquiring greater clarity among concepts. The alternative is to wait for more of Luhmann's work to be translated into English.

8. CONCLUSION

In an age of an increasingly complex society, of globalisation, of multiple environmental crises, and of heightened self-interests, the semantics of community not only mediates between individuals and society, but also between local and global, between self-interests and common interests, between place and placelessness, and between inclusion and exclusion. Always there is an inherent goodness: local is good; common is good; place is good; inclusion is good. However, it is one thing to evoke ‘community’ as the *raison d’être* for participation, as the source of values that support sustainability, or as the counter to global hegemony. Such uses appeal to the normative semantics of having community, of being in community. It is another thing to inquire into the meaning of community.

If community is an enduring human value of social relationships and place attachments, greater clarity of its meaning is necessary to understand society itself. Yet, the more one tries to sort through what people mean by community the more ambiguity one finds. To pursue an inquiry into the meaning of community is to assume the burden of argumentation of what is or is not community and why – of reconciling the possibility of community under conditions of increasing improbability. Moreover, to question community is to question all of its forms of goodness.

Accepting the burden of argumentation leads to “a revolutionary science” (Bernard 1973) that creates a new paradigm for the study of community. A systems-theoretical approach is one such possibility. As a ‘post’ normal science it centres upon complexity, enforced selectivity, and the inescapable paradox of self-reference. Within normal science, logic dictates that self-reference be excluded as a condition of possibility.

When we encounter the paradox of self-reference within arguments, the arguments themselves are considered faulty or incorrect. But the problem encountered within community theory *is* a problem of self-reference. Most critically, it is problematic because it closes off debate about the meaning of community. The challenge of overcoming the limitations of normal science approaches is to ‘see’ what normal science approaches cannot see.

A systems-theoretical approach takes complexity as a foundation of inquiry and accepts the paradox of self-reference as the basis for observing the possibility of community. In this framework one dismisses fundamental concepts about the social. At the same time, one accepts a post-humanist conception of the social as self-referential systems of communication. Communicative events, not action and not individual human beings, are the elemental units of society. The implications for an inquiry into the meaning of community are significant. Epistemologically, a systems-theoretical approach works not from identities but from differences. Methodologically, a systems-theoretical approach is based on second-order observations and studied as a question of systemness. Empirically, the inquiry is based on the observation of the structural conditions of selectivity enforced by complexity, i.e., of the co-evolution of semantics and social structures. Self-descriptions refer to emerging system identity, values refer to emerging system stability, and symbolically generalised media of communication refer to emerging systems. By these means, the complexity of community as a social phenomenon is not the final constraint but an innovative point of departure that leads an inquiry into the meaning of community beyond the constraints of the normal science of community theory.

Community theory: reconcilable differences

A theory of self-referential social systems accounts for the conceptual ambiguity of community theory because there are multiple ways to observe community. More pragmatically, a theory of multiple observing systems of communication provides a common platform for debate among and across disciplines and practices that employ the semantics of community (for whatever reason). The outcome is not a dismissal of all community theory; a systems-theoretical approach accommodates its inherent diversity.

All communications begin by drawing a distinction. Thus, an understanding of community can be directed by differences, not only by identities. Questions need not be asked only about how is community studied, but also about what distinctions are being used to distinguish community. Acknowledging differences is a prerequisite to addressing the conceptual ambiguity of community because community must be first defined by a difference. As Hillery (1955) found in his study, there are irreconcilable differences among definitions of community: only people emerge as common to all definitions of community. Irreconcilable differences are an outcome of system reference: the first cut, the primal distinction. How one studies community depends on how one understands the study of community – and this depends on how one draws a distinction.

A systems-theoretical approach provides an approach by which we can understand differences of observation that are 'blind' to the self-reference of community theory. Observing systems are constrained by how they make sense of the experiential world. Only the observing system determines how it relates to its observations. The system determines what is and what is not a meaningful difference, i.e., a difference that makes a difference. Difference, in the strict sense as it applies to

the organisation of observing systems, cannot be reconciled. Each observing system is organisationally closed. Each system draws distinctions that are coded; it cannot see what its coded identity cannot see. Only from a second-order level of observation can we examine the structural conditions and limitations that frame the frames within which observations of community operate.

Foundation for a theory of community

A systems perspective, at a minimum, provokes the question: What do you mean by community? Moreover, one can follow with a question about what is not community. But a systems-theoretical framework is not only about observing how people use community as a distinction. This kind of approach remains at a level of first-order observation of what community is. At a second-order level of observation, we observe how community is possible.

Within a systems-theoretical framework, we observe the co-evolution of the semantics of community and the socio-structural conditions of modern society. The aim is to see how the semantics of community evolves from self-descriptions of society, how subsequent self-organising processes constitute increasing stability within the semantics of community, and how pre-conditions catalyse the formation of a community system. By using this approach, we not only gain a descriptive account of the residual, dominant, and emerging semantics of community, but also gain important insights as to why people are using community as an increasingly significant societal value.

At a first level of inquiry, community is observed as a self-description of modern society. During the early stages of modernity, as 'individual' came to refer to the

elemental unit of society and 'society' was understood in a general and abstract sense, community acquired meaning in relation to immediate, face-to-face relations. Situating this historico-cultural analysis of community within a systems-theoretical framework emphasised the modern, English-speaking origins of the meaning of community that remains dominant in the twenty-first century. Correspondingly, this approach questioned both the universal (i.e., multi-cultural, global) appeal of community and the prevalence of denoting pre-modern societies as communities.

In the dominant semantics of community theory, community is a distinction indicating the unmarked side that privileges hetero-reference over self-reference. That is, community is used to refer to what is missing in society rather than to what society is. Temporally, the semantics of community provides a link to the past as a reference to nostalgia, feeding off the traditional notion that simplicity is a legitimate property of society. As a link to the future, community functions as a reference to utopia. This semantics is evident throughout the community theory literature, especially in typologies of social organisation. By mid-twentieth century, with the structural conditions of suburbanisation influencing self-descriptions of modern society, the semantics of community mediates a debate about what society is and what society is not. Hence, community is lost, found, and saved in the second half of the twentieth century.

Meanwhile, the more that the semantics of community is used, the more acceptable it becomes. The semantics of community development, healthy communities, community economic development, and similar terms, is constructed upon an emerging stability within the semantics of community. The goodness of community is embraced as a social value and generalised as a symbol of inclusion. It is this understanding of

self-organising stability that explains why community is used more often and why it gains social significance. By late-twentieth century, as observed in the semantics of sustainable rural communities, the appealing generalisability of community is invoked as a value of health, well-being, and sustainability.

With increasingly complex self-descriptions, of multiple views of the world, and of a growing sense of exclusion, people seek an alternative to the dominant self-descriptions of modern society. The semantics of community, I argue, evolve its own connective capacities as an alternative self-description of the world. The semantic evolution of community is observable in a shift from negativity (self-descriptions of what society is not) to positivity (self-descriptions of what community is). In other words, the semantics of community begin to organise its own self-reference, which can be seen as an essential pre-adaptive advance of the emergence of a community system. As an outcome of this process of self-organisation, the notion of ‘goodness’ as an ultimate value of community stabilises and persists as a functional code of inclusion/exclusion.

A community system emerges as a way of coping with the increasing complexity of modern society. Its function is to make visible a common world; to make probable the improbability of a common world as a differentiated entity within a functionally differentiated society. In other words, community is the excluded third that operationalises the modern paradox of equality/inequality.

A community system also needs rules, a way to know what is to be included and what is to be excluded. Distinctions of belonging/not belonging, place/placelessness, and newcomer/oldtimer function as criteria (programs) for the code of inclusion/exclusion. That is, people speak of a sense of belonging, sense of

community, sense of attachment, sense of rootedness, and sense of place as structural conditions of selectivity and connectivity. Additionally, to make one's world available to another, one's inner experiences are mediated by shared practices, by ways of observing another through the medium of communication. Under the condition of double contingency, chance leads to the possibility of a common world as a differentiated entity, as illustrated by the semantics of intentional communities. Finally, I proposed, in a speculative way, that community systems emerge as a functional equivalent of segmentary systems in modern society.

A strict determination of whether community is a system is not an essential outcome of this inquiry. By developing and then applying a systems-theoretical framework, a comprehensive foundation has been set forth that encompasses a range of possible meanings of community. An advantage of this framework is that it is not hindered by ambiguity when confronted with self-reference. Instead, working from self-reference toward understanding the possibility of community transcends the limitations of the normal science of community theory. We can now 'see' what the normal science of community theory can only 'see' as ambiguity.

Contribution

The comprehensive foundation for a theory of community as a self-referential social system set forth in this dissertation contributes to both community theory and systems theory. While this dissertation has advanced the possibility that community has emerged or is emerging as a social system, the significance of the research is not predicated upon a

conclusive finding as to whether community is a system or not. As a work towards such a theory, the ideas I have presented provide a solid foundation for future debate.

In particular, as part of this contribution, I identify and articulate several critical elements. These critical elements include the observations of community as a self-description of society that refers to what is missing and to the self-organisation of the semantics of community. The latter is comprised of significant individual contributions. Namely, community takes on values of goodness as part of its stabilising process, of its self-organising shift from negativity to positivity. Additional observations of semantics from the fields of community development and community economic development, as well as in public policy and other areas of rural studies research, indicate that community can also be observed as a generalised medium of communication that symbolises inclusiveness. This accounts for the increasing use and greater social significance of community.

With regard to more technical aspects of system self-organisation, it is theorised that the function of a community system is to deal with the paradox of equality/inequality: community makes probable the improbability of a common world as a differentiated entity within a functionally differentiated society. Further observations lead to the proposed code of a community system as inclusion/exclusion. This code is abstract enough to be wholly relevant to the function of the system. Such observations are drawn from the emerging semantics of sustainable rural communities, e.g., ecological communities, and sustainable communities, as well as from the semantics of intentional communities. Within this literature, in conjunction with Relph's phenomenology of place, it was proposed that a community system describes

itself as an intimate relation that makes visible a close, comprehensible, and familiar world – as one’s place in the world. Each of these elements constitutes contributions to community theory in rural studies.

In addition, my observations of community as a social system successfully integrate efforts of other theorists. This includes Lee’s theory of orthopraxis, England’s empirical study of autopoietic mechanisms, Schechter’s articulation of community as a self-description, and Barbesino’s methodological concerns.

The dissertation contributes innovative insights to the meaning of community. In particular, the arguments advanced in this dissertation respond directly to each of the limitations of the normal science of community theory. Furthermore, a systems-theoretical framework does not merely provide an alternative argument that dismisses these limitations as irrelevant. To the contrary, a systems-theoretical framework both encounters and accounts for these limitations. This provides opportunities to reformulate not only community theory, but also the study of community.

More generally, a systems-theoretical view of community contributes to a body of literature that continues to struggle with the meaning of its own subject. Community is neither well understood nor well defined. Contrary to some community theorists, I do not view ambiguity as the strength of community as a concept. The outcomes of this inquiry demonstrate other possibilities. Likewise, as an alternative view of community, the proposed research provides further opportunities to re-think related notions of community development, community economic development, community capacity, and similar terms.

As well, by embracing complexity as a foundation of inquiry, this research turns what is encountered as an ontological barrier within community theory into an

epistemological basis for theory. Effectively, the application of Luhmann's framework re-directs the 'irrationality' of self-reference into an inquiry about the co-evolution of the semantics of community and the structural conditions of selectivity enforced by an increasingly complex modern society. This lends new insights to understanding the meaning of community (or, more specifically, clarifies to what community refers). From a systems-theoretical perspective, any theory of society is a correlate of particular societal structures. As such, community cannot be properly understood unless it is seen generally in the context of a general theory of society – as a possibility within modern society.

In addition, employing Luhmann's work to frame a theory of community is important because it builds upon significant contributions to community theory in North America over the past fifty years, namely, the increased focus upon community as a system (Willis 1977). The dissertation extends this line of theoretical development.

Significant differences exist among 'normal' community theorists, Cohen's theory of symbolically constructed community, and self-referential systems theory of community. These differences can be seen as shifts in the philosophical view of community: from structural to symbolic to self-referential. Additionally, community is seen as an objective definition and description of institutions in the first instance, as mental constructs to make meaning in the second, and as a system of meaning processing in the third. The differences illuminate the innovative contribution a theory of self-referential social systems makes to our understanding of community. In particular, a systems-theoretical framework is able to draw upon not only sociological concepts of community, but also a rich history of community theory premised upon self-reference

and complexity, including a diverse disciplinary base of mathematics, biology, cybernetics, and phenomenology.

With regard to systems theory, Luhmann's work is highly regarded internationally. He is considered one of Germany's leading sociologists. Yet his work remains relatively unexplored in English-speaking academia. On one level, adopting Luhmann's work is an accomplishment and a contribution to those interested in developing his theories. Another contribution in this field of systems thinking is the application of Luhmann's work specifically to the study of community. The dissertation represents a successful and innovative use of Luhmann's work for the study of a contemporary phenomenon of modern society: the enigma and ubiquity of community.

Finally, the arguments advanced in this dissertation represent significant contributions toward a theory of community as a social system and provide a point of departure for further research. Specific points (e.g., coding, self-programming) can be elaborated, more extensive historico-cultural analysis can enhance observations of semantics of community, and the validity of the proposed observations can be challenged. Such possibilities are now identified and open to others to pursue.

GLOSSARY

Autopoiesis: “Refers to (autopoietic) systems that reproduce all the elementary components out of which they arise by means of a network of these elements themselves and in this way distinguish themselves from an environment – whether this takes the form of life, consciousness or (in the case of social systems) communication. Autopoiesis is the mode of reproduction of these systems” (Luhmann 1989:143).

Code: “Codes arise out of a positive and a negative value and enable the transformation of the one into the other. They come into being through a duplication of a given reality and with this offer a scheme for observations within which everything that is observed appears as contingent, i.e., as possibly different” (Luhmann 1989:143).

Communication: Designates not simply an act of utterance that ‘transfers’ information but an independent autopoietic operation comprised of three elements: information (a selection from the repertoire of referential possibilities), utterance (a selection from a repertoire of intentional acts), and understanding (the observation of the distinction between utterance and information); (b) actualised in the present as a communicative event.

Complex systems thinking: refers to theories and concepts associated with theories of complexity; also known as “dynamical systems theory,” “the theory of complexity,” “non-linear dynamics,” “network dynamics”; self-organisation, autopoiesis, and dissipative structures, chaotic attractors, and fractals, are some of its key theories and concepts (Capra 1996).

Complexity: “A state of affairs is complex when it arises out of so many elements that these can only be related to one another selectively. Therefore complexity always presupposes, both operatively as well as in observation, a reduction procedure that establishes a model of selecting relations and provisionally excludes, as mere possibilities, (i.e., potentialises) other possibilities of connecting elements together” (Luhmann 1989:144).

Concept: The “basic building blocks of theory” (Turner 1989:5); “abstract elements representing classes of phenomena within the field of study” (Babbie 1998:52). Concepts don’t seek to explain, but to describe or identify a new way to look at the world at the same time as they bring some aspect of the world into existence.

Distinction: “a boundary with separate sides so that a point on one side cannot reach the other side without crossing the boundary” (Spencer Brown 1969:1).

Event: a communicative act actualised in the present.

Form: a difference of pure self-reference. Forms, however, can only be articulated asymmetrically by indicating only one of their sides (the internal side) but not the other (the external side). To indicate both sides of the form requires one to “cross” the boundary from one side to the other.

Meaning: meaning “provides both the condition of and the means by which selections can be made” (Bednarz 1988:6). For social systems, meaning is actualised as a selection. As such, meaning cannot appear without reference to systems that constitute it. Meaning guides the selection process of each system, thus enabling systems to make distinctions and to determine for itself what is information, how it may be acted upon, and how it may be interpreted.

Normal science: A puzzle-solving approach in which it is assumed the puzzle is soluble and unsolved problems are seen as anomalies. Areas of study and theory that grow steadily and cautiously, cultivated within a paradigm that includes theoretical concepts approved by scientists in the pertinent field, including methods and models (Kuhn 1970).

Paradigm: A way of viewing the world, whereas a theory aims at explaining what we see (Babbie 1998:51).

Paradox: “A paradox occurs when the conditions of the possibility of an operation are at the same time the conditions of the impossibility of this operation. Since all self-referential systems having the possibility of negating create paradoxes that block their own operations (for example, can only determine themselves only in reference to what they are not, even if they themselves and nothing else are this non-being) they have to foresee possibilities of *eliminating the paradox* and at the same time disguise the operations necessary for this” (Luhmann 1989:144-45); “a permissible and meaningful statement that leads nonetheless to antinomies or undecidability (or, more strictly, a demonstrable proposition that has such consequences)” (Luhmann 2002a:142).

Program: “[D]esignates conditions under which the positive or negative value of a specific code can be ascribed to situations or events. In some systems this is treated as a question of a decision (thus also decision-paradigms) between true and false, legal and illegal, etc.” (Luhmann 1989:145).

Second-order cybernetics: when the observer is included in the domain of observation.

First-order cybernetics is the cybernetics of *observed* systems. Second-order cybernetics is the cybernetics of *observing* systems.

Self-description: A self-description is a description of a system by a system that allows the relation between system and environment to be re-introduced into the system; a self-constituted difference between system and its environment; a basal form of connectivity between system and environment that is part of a system's recursive processing of meaning that generates and preserves identity. Whereas self-observation is an operation of a system, self-description is the semantic outcome of self-observation; one cannot have a self-description without self-observation.

Self-observation: An operation of a system; observation of the system-environment difference within the system. See self-description, above.

Self-referential system: Self-referential systems are systems that differentiate only by referring to themselves in constituting their elements and their elemental operations, which is made possible by systems employing the difference between system and environment within themselves, i.e., as a self-description (Luhmann 1995a:9).

Semantics: a supply of themes for the purposes of communication; semantics develops different connective capacities that then function as media of communication.

Social structure: (a) as the accumulation of meaningful differences that guide selections: social structures facilitate the marking of differences; they catalyse operations by increasing the probability of connecting one selection with another; (b) norms, values, expectations, roles, etc.; (c) objectified possibilities, wherein meaning exists in the things themselves; (d) expectations of expectations.

Social System: “A social system comes into being whenever an autopoietic connection of communications occurs and distinguishes itself against an environment by restricting the appropriate communications. Accordingly, social systems are not comprised of persons or actions but of communications” (Luhmann 1989:145-46).

Symbolically generalised media of communication: semantic devices; “connections between the complexity of the world on one hand and the socially regulated processes for differentiating and connecting multiple selections on the other” (Luhmann 1979, 48); codes of selection that increase the societal capacity for communication by anticipating what is possible and by stabilising possibility.

System theory(ies): applies to systems in a very general sense, not to be associated with any period or type of systems approaches.

System: a collection of relations among elements conditioned by a rule of inclusion or exclusion.

Systems thinking: defined as the understanding of a phenomenon within the context of a larger whole (Capra 1996:27); covers a range of systemic thinking, including general systems theory started in the 1930s and more fully developed by in the 1960s; also includes open systems theories, soft systems methodologies, and complex systems thinking. Note that Parsons’ theory of social systems is commonly excluded from the field of systems thinking since it was developed in the 1930s and 1940s prior to the development of Bertalanffy’s general systems theory (Lilienfeld 1978:196).

Theory: A systematic set of interrelated statements intended to explain a particular phenomenon (Babbie 1998).

REFERENCES

- Arensberg, Conrad M. and Solon T. Kimball 1965. *Culture and Community*. New York, NY: Harcourt, Brace & World.
- Babbie, Earl 1998 (Eighth edition). *The Practice of Social Research*. Wadsworth Publishing Company.
- Bailey, Kenneth D. 1994. *Sociology and the New Systems Theory: Toward a Theoretical Synthesis*. Albany, NY: State University of New York Press.
- Bakker, J.I. Hans and A.R. Winson 1993. "Rural Sociology." In P. Li and B. Singh Balaria (Eds.), *Contemporary Sociology: Critical Perspectives*. Toronto: Copp Clark Pitman, pp. 500-517.
- Barbesino, Paolo 1997. "Towards a post-foundational understanding of community." *Kybernetes* 26(6/7):689-702
- Bauman, Zygmunt 2001. *Community: Seeking Safety in an Insecure World*. Cambridge, UK: Polity Press.
- Beatley, Timothy and Kristy Manning 1997. *The Ecology of Place: Planning for Environment, Economy, and Community*. Washington, DC: Island Press.
- Bednarz, John Jr. 1988. "Information and meaning: Philosophical remarks on some cybernetic concepts." *Humankybernetik* Band 29 - Heft 1 verlag modernes lernen *die Systemforschung?*, Frankfurt, 1971
- Bell, Colin and Howard Newby 1972. *Community Studies: An Introduction to the Sociology of the Local Community*. New York: Praeger Publishers.

- Bellah, Robert N. 1998. "Community Properly Understood: A defense of 'Democratic Communitarianism'." In Etzioni, A. (Ed.), *The Essential Communitarian Reader*. Lanham, MD: Rowman & Littlefield, pp. 15-20.
- Bensman, Joseph and Robert Lilienfeld 1979. *Between Public and Private: The Lost Boundaries of the Self*. New York, NY: The Free Press.
- Bernard, Jessie 1973. *The Sociology of Community*. Glenview, Illinois: Scott, Foresman and Company.
- Berry, Wendell 1992. "Sex, Economy, Freedom, and Community." In Berry, Wendell, *Sex Economy, Freedom & Community*. New York: Pantheon Books.
- Berry, Wendell 1996. "Conserving Communities." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press, pp. 76-84.
- Beyer, Peter 1984. "Introduction" in Luhmann, Niklas (1984 [1977]; translated by Peter Beyer), *Religious Dogmatics and the Evolution of Society*. New York: The Edwin Mellon Press, pp. v-liii.
- Bhattacharyya, Jnanabrata 1995. "Solidarity and Agency: Rethinking Community Development" *Human Organization* 54(1):60-69.
- Boudon, Raymond 1984. *Theories of Social Change: A Critical Appraisal*. Cambridge: Polity Press.
- Brundtland, G. (Ed.) 1987. *Our Common Future: The World Commission on Environment and Development*. Oxford, UK: Oxford University Press.

- Bryden, John 1994. "Some Preliminary Perspectives on Sustainable Rural Communities." In Bryden, John (Ed.) (with Lisa Leblanc and Craig Zeal), *Towards Sustainable Rural Communities: The Guelph Seminar Series*. Guelph, ON: University School of Rural Planning and Development, pp. 41-50.
- Buckley, Walter 1967. *Sociology and Modern Systems Theory*. Englewood Cliffs: Prentice-Hall, Inc.
- Buckley, Walter 1998. *Society – A Complex Adaptive System: Essays in Social Theory*. Amsterdam, The Netherlands: Gordon and Breach Publishers.
- Bunce, Michael 2001. Keynote presentation, *In Search of ... Sustainability, Rurality, and Community*, Rural Studies Conference, University of Guelph, October 21, 2001, Guelph, Ontario.
- Capra, Fritjof 1996. *The Web of Life*. New York, NY: Doubleday.
- Cobb, John B. 1996. "Defining Normative Community." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press, pp. 185-194.
- Cock, Peter 1979. *Alternative Australia: Communities of the Future?* Melbourne: Quartet Books Australia Pty Ltd.
- Cock, Peter 1995. "From Communal Theory to Eco-spiritual Practice." In Metcalf, Bill (Ed.), *From Utopian Dreaming to Communal Reality*. Sydney: University of New South Wales Press.
- Cohen, Anthony P. 1985. *The Symbolic Construction of Community*. New York: Ellis Horwood Limited and Tavistock Publications Limited.

- Colomy, Paul (Ed.) 1992. *The Dynamics of Social Systems*. London, UK: Sage Publications.
- Connell, David J. 2001 (unpublished). *Reformulating Community as a Complex Social System*. University of Guelph, Guelph, Ontario.
- Community Development Society 2003. 2002. *CDS Principles of Good Practice*. Available on-line at <http://www.comm-dev.org>. Accessed on May 27, 2003.
- Cooley, Charles Horton 1963 [1909]. *Social Organisation: A Study of the Larger Mind*. New York, NY: Schocken Books Inc.
- Costanza, Robert, Bryan G. Norton, and Benjamin D. Haskell (Eds.) 1992. *Ecosystem Health: New Goals for Environmental Management*. Washington, DC: Island Press.
- Crow, G.P., Allan, G. 1994. *Community Life. An Introduction to Local and Social Relations*. London, UK: Harvester Wheatsheaf.
- Daly, Herman E. and John B. Cobb Jr. 1989. *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Boston: Beacon Press.
- Dasgupta, Satadal 1996. "The Community: Definitions and Perspectives." In Satadal Dasgupta (Ed.), *The Community in Canada: Rural and Urban*. Landham, MD: University Press of America, pp. 3-86.
- Dammann, Klaus 2002. Personal communication.
- Davison, Leigh 1995. "From Barbecues at Bondi to Bio-dynamic Bananas." In Metcalf, Bill (Ed.), *From Utopian Dreaming to Communal Reality*. Sydney: University of New South Wales Press.

- Douglas, David J.A. 1994. *Community Economic Development in Canada (Volume 1)*. Toronto, ON: McGraw-Hill Ryerson Limited.
- Driskell, Robyn Bateman and Larry Lyon 2002. "Are Virtual Communities True Communities? Examining the Environments and Elements of Community," *City and Community* 1(4):373-390.
- Effrat, Marcia Pelly 1974. "Approaches to Community: Conflicts and Complementarities." In Effrat, Marcia Pelly (Ed.), *The Community: Approaches and Applications*, pp. 1-32. New York, NY: The Free Press.
- Ehrenfeld, David 1996. "Pseudocommunities." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.
- England, Lynn. 2002. "Community and Autopoiesis." *The Community Effect in Rural Places*, 65th Annual Meeting, Rural Sociological Society. Chicago, August 14-18, 2002.
- Etzioni, Amitai 2000. "Epilogue." In Lehman, Edward W., *Autonomy and Order: A Communitarian Anthology*. Lanham, MD: Rowman & Littlefield Publishers, Inc.
- Evans, Hannah and Eric Advokaat 2001. "The Language of Community in Canada" Social Relationships: Communities Paper. Final report to the Law Commission of Canada. Ottawa: Law Commission of Canada.
- Eyles, John 1985. *Senses of Place*. Cheshire, England: Silverbrook Press.
- Fellowship for Intentional Communities 2002. "What is an Intentional Community?" *Communities: Journal of Cooperative Living*. Fall 2002 (116):6.

- Freie, John F. 1998. *Counterfeit Community: The Exploitation of Our Longings for Connectedness*. Lanham, ML: Rowman & Littlefield Publishers, Inc.
- Fuchs, Stephan 1988. "Translation and Introduction" to "Tautology and Paradox in the Self-descriptions of Modern Society." *Sociological Theory* 6(Spring):21-37.
- Fuks, Saul I. 1998. "Systems Theory Perspective and Community Psychology." *Journal of Community Psychology* 26(3):243-252.
- Funtowicz, S and J. Ravetz 1992. "Three Types of Risk Assessment and the Emergence of Post- Normal Science." In S. Krimsky and D. Golding (eds.) *Social Theories of Risk*. pp. 251-273. Greenwood: Westport CT.
- Funtowicz, S and J. Ravetz 1993. "Science for the Post-Normal Age." *Futures* 25(7):735-755.
- Funtowicz, S and J. Ravetz 1999. "Post-Normal Science - an insight now maturing." *Futures* 31(7):641-646.
- Gallopín, Gilberto C., Silvio Funtowicz, Martin O'Connor, and Jerry Ravitz. "Science for the 21st Century: From Social Contract to the Scientific Core." *International Journal of Social Sciences*. Vol 168.
- Geyer, F. & J. Van der Zouwen 2001. *Sociocybernetics: Complexity, Autopoiesis, and Observation of Social Systems*. Westport, CT: Greenwood Publishing Group.
- Haas, Toni and Paul Nachtigal 1998. *Place Value: An Educator's Guide to Good Literature on Rural Lifeways, Environments, and Purposes of Education*. Charleston, WV: Clearinghouse on Rural Education and Small Schools.

- Hamilton, Peter 1985. "Editor's Foreword" in Anthony P. Cohen, *The Symbolic Construction of Community*. New York: Ellis Horwood Limited and Tavistock Publications Limited.
- Hancock, Trevor 1997. "Healthy Sustainable Communities: Concept, Fledgling Practice, and Implications for Governance. In Roseland, Mark (Ed.), *Eco-city Dimensions: Healthy Communities, Healthy Planet*. Gabriola Island BC: New Society Publishers, pp. 42-50.
- Hayles, Katherine N. 1999. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago, IL: University of Chicago Press.
- Hess, Andreas 1998. "Obituary: Niklas Luhmann: There is such a thing as society," *The Guardian* (London), November 27, 1998, p. 22.
- Hewitt, Kenneth 1986. "The Meaning and the Loss of Place in War: Japanese Civilians in World War Two." In Liman, Anthony V and Fred S. Thompson (Eds.), *Fudo: An Introduction*. Waterloo, ON: University of Waterloo Press.
- Hillery, George 1955. "Definitions of Community: Areas of Agreement." *Rural Sociology*, 20:111-23.
- Hiskes, Richard P. 1982. *Community Without Coercion: Getting Along in the Minimal State*. Newark: University of Delaware Press.
- Hornung, Bernd R. 1999. "In Memoriam: Niklas Luhmann, (1927-1998)." In *ISA Bulletin*, No. 78-79, pp. 24-26, Madrid, Spain: International Sociological Association.

- Kalinowski, Franklin A. 1996. "Also Leopold as Hunter and Communitarian." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.
- Kamenka, Eugene 1983 [1982]. "Introduction." In Kamenka, Eugene (Ed.), *Community As a Social Ideal*. New York: St. Martin's Press, Inc.
- Kauffman, Louis H. 2002. "Laws of Form and Form Dynamics." *Cybernetics and Human Knowing*. 9(2):49-63.
- Kay, James J., Henry Regier, Michelle Boyle, and George Francis 1999. "An Ecosystem Approach for Sustainability: Addressing the Challenge of Complexity." *Futures* 31(7):721-742.
- Kittredge, Jack 1996. "Community-supported Agriculture." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.
- Kloppenburg, Jack Jr., and John Hendrickson, and G.W. Stevenson 1996. "Coming in to the Foodshed." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.
- Knodt, Eva M. 1995. "Foreward" in Niklas Luhmann *Social Systems*. Stanford, CA: Stanford University Press.
- König, Rene 1968 (translated by Edward Fitzgerald). *The Community*. New York: Schocken Books.

- Kozeny, Geoph 1996. "Intentional Communities: Lifestyles Based on Ideals." Fellowship for Intentional Communities. Available on-line at www.ic.org. Accessed on May 27, 2003.
- Krannich, Richard S. and Thomas R. Greider 1990. "Rapid Growth Effects on Rural Community Relations." In Luloff, A.E. and Louis E. Swanson (Eds.), *American Rural Communities*. Boulder, CO: Westview Press.
- Kuhn, Thomas 1970. *The Structure of Scientific Revolutions*. Chicago, IL: University of Chicago Press.
- Lamb, David 1993. *A Sense of Place: Listening to Americans*. New York, NY: Times Books.
- Laxer, Gordon 1995. "Introduction." *The Canadian Review of Sociology and Anthropology* 32(3):247-251.
- Lee, Daniel 2000. *Old Order Mennonites: Rituals, Beliefs, and Community*. Chicago, IL: Burnham Inc., Publishers.
- Lilienfeld, Robert 1978. *The Rise of Systems Theory*. Toronto, ON: John Wiley and Sons.
- Liman, Anthony V and Fred S. Thompson (Eds.) 1986. *Fudo: An Introduction*. Waterloo, ON: University of Waterloo Press.
- Livingston, John A. 1996. "Other Selves." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.

- Logsdon, Gene 1984. "The Importance of Traditional Farming Practices for a Sustainable Modern Agriculture." In Jackson, Wes, Wendell Berry, and Bruce Colman (Eds.), *Meeting The Expectations of the Land*. San Francisco: North Point Press.
- Luhmann, Niklas 1979. *Trust and Power*. Great Britain: John Wiley & Sons Ltd.
- Luhmann, Niklas 1971. "Differentiation of Society" *Canadian Journal of Sociology* 2(1997):29-54.
- Luhmann, Niklas 1982. *The Differentiation of Society*. New York, NY: Columbia University Press.
- Luhmann, Niklas 1984. *Religious Dogmatics and the Evolution of Society*. New York, NY: The Edwin Mellon Press.
- Luhmann, Niklas 1986. *Love as Passion: The Codification of Intimacy*. Great Britain: Polity Press.
- Luhmann, Niklas 1987. "The evolutionary differentiation between society and interaction." In Alexander, J.C., et al, *The Micro-Macro Link*. Berkeley, CA: University of California Press, pp.112-31.
- Luhmann, Niklas 1988a. "Familiarity, confidence, trust: problems and alternatives." In Gambetta, D., *Trust: Making and Breaking Co-operative Relations*, Oxford, UK: Blackwell Publishers, pp. 94-107.
- Luhmann, Niklas 1988b. "Tautology and Paradox in the Self-descriptions of Modern Society." *Sociological Theory* 6(Spring):21-37.
- Luhmann, Niklas 1989. *Ecological Communication*. Cambridge, MA: Polity Press.

Luhmann, Niklas 1990. *Essays on Self-reference*. New York, NY: Columbia University Press.

Luhmann, Niklas 1993. "Deconstruction as Second-order Observing." *New Literary History* 24:763-782.

Luhmann, Niklas 1994. "'What is the case?' and 'what lies behind it?' The two sociologies and the theory of society", *Sociological Theory*, 12, 126-39.

Luhmann, Niklas 1995a. *Social Systems*. Stanford, CA: Stanford University Press.

Luhmann, Niklas 1995b (translated by Lars Qvortrup). "Why "Systems Theory?" *Cybernetics and Human Knowing* 3(2):3-10.

Luhmann, Niklas 1997. *Die Gesellschaft der Gesellschaft* [The Societies of Society]. Frankfurt, Germany: Suhrkamp.

Luhmann, Niklas 2000a. *Art as a Social System*. Stanford, CA: Stanford University Press.

Luhmann, Niklas 2000b. *The Reality of the Mass Media*. Stanford, CA: Stanford University Press.

Luhmann, Niklas 2002a. "The Cognitive Program of Constructivism and the Reality that Remains Unknown" In Luhmann, Niklas (edited by William Rasch; translated by Joseph O'Neil), *Theories of Distinction: Redescribing the Description of Modernity*. Stanford, CA: Stanford University Press, pp.128-152.

Luhmann, Niklas 2002b. "What Is Communication?" In Luhmann, Niklas (edited by William Rasch; translated by Joseph O'Neil), *Theories of Distinction: Redescribing the Description of Modernity*. Stanford, CA: Stanford University Press, pp.155-168.

- Lyndon, D. et al. 1962. "Towards Making Places." *Landscapes* 12(3):31-41.
- Martindale, Don (Ed.) 1965. *Functionalism in the Social Sciences*. Philadelphia: The American Academy of Political and Social Science.
- Maturana, Humberto 1980. "Introduction." In Maturana, Humberto and Francisco Varela 1980. *Autopoiesis and Cognition*. Boston: Reidel, pp. xi-xxx.
- Maturana, Humberto 2002. "Autopoiesis, Structural Coupling, and Cognition." *Cybernetics and Human Knowing*. 9(3-4):5-34.
- Maturana, Humberto and Francisco Varela 1980. *Autopoiesis and Cognition*. Boston: Reidel.
- McLaughlin, Corinne and Gordon Davidson 1985. *Builders of the Dawn: Community Lifestyles in a Changing World*. Summertown, TN: Book Publishing Company.
- Melnyk, George R. 1985. *In Search of Community: From Utopia to Co-operative Society*. Montreal: Black Rose Books.
- Metcalf, Bill 1995. "A Brief History of Communal Experimentation in Australia." In Metcalf, Bill (Ed.), *From Utopian Dreaming to Communal Reality*. Sydney: University of New South Wales Press.
- Miller, Lynn R. "Small Farms, Small Towns, and Good Work." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.
- Mills, C. Wright 1959. *The Sociological Imagination*. New York, NY: Oxford University Press.

- Minar, David W. and Scott Greer 1969. *The Concept of Community: Readings and Interpretations*. Chicago, IL: Aldine Publishing Company.
- Mingers, John 1995. *Self-Producing Systems: Implications and Applications of Autopoiesis*. New York: Plenum Press.
- Newbrough, J.R. 1995. "Toward Community: A Third Position." *American Journal of Community Psychology*. 23(1):9-37
- Nisbet, Robert A. 1964. *Community & Power*. (Formerly titled, *In Quest of Community*.) New York, NY: Oxford University Press.
- Nisbet, Robert A. 1966. *The Sociological Tradition*. London, UK: Heinemann.
- Norberg-Schulz, Christian 1971. *Existence, Space and Architecture*. New York, NY: Praeger Publishers, Inc.
- Ontario Healthy Communities Coalition 2003. "What Makes a Community Healthy?" Available on-line at: <http://www.healthycommunities.on.ca/> Accessed April 30, 2003.
- Parsons, Talcott and Edward Shils (Eds.) 1951. *Toward a Theory of Social Action*. Cambridge: Harvard University Press.
- Plant, Raymond 1974. *Community and Ideology: An Essay in Applied Social Philosophy*. London, UK: Routledge & Kegan Paul.
- Poplin, Dennis E. 1972. *Communities: A Survey of Theories and Methods of Research*. New York: The MacMillain Company.

- Rapley, Mark and Grace M.H. Pretty 1999. "Playing Procrustes: The Interactional Production of a 'Psychological Sense of Community.'" *Journal of Community Psychology* 27(6):695-713.
- Rasch, William 2002. "Introduction: The Self-positing Society." In Luhmann, Niklas (edited by William Rasch; translated by Joseph O'Neil), *Theories of Distinction: Redefining the Description of Modernity*. Stanford, CA: Stanford University Press.
- Redfield, Robert 1969. *The Little Community*. Chicago, IL: University of Chicago Press.
- Rees, William 2001. *The Economic Costs of Globalization*. Caledon Countryside Alliance Speaker Series, Caledon, Ontario, September 28, 2001.
- Relph, Edward 1976. *Place and Placelessness*. London: Pion Limited.
- Relph, Edward 1985. "Geographical Experiences and Being-in-the-world: The Phenomenological origins of geography." In Seamon, David and Robert Mugerauer (Eds.), *Dwelling, Place and Environment: Towards a Phenomenology of Person and World*. Dordrecht, Netherlands: Martinus Nijhoff Publishers.
- Robertson, Robin 1999. "Some-thing from No-thing: G. Spencer-Brown's Laws of Form." *Cybernetics and Human Knowing* 6(4):43-55.
- Roseland, Mark 1997. "Dimensions of the Future: An Eco-city Overview." In Roseland, Mark (Ed.), *Eco-city Dimensions: Healthy Communities, Healthy Planet*. Gabriola Island, BC: New Society Publishers.
- Ross, David P. and Peter J. Usher 1986. *From the Roots Up: Economic Development as if Community Mattered*. Croton-on-Hudson, New York: The Bootstrap Press.

- Ryan, Vernon D. 1994. "Community Development and the Ever Elusive 'Collectivity.'" *Journal of the Community Development Society* 25(1):5-19.
- Sanders, Irwin T. 1966 (Second Edition). *The Community: An Introduction to a Social System*. New York, NY: The Ronald Press Company.
- Sanders, Scott Russell 1996. "The Common Life." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.
- Sarason, Seymour B. 1974. *The Psychological Sense of Community: Prospects for a Community Psychology*. San Francisco: Jossey-Bass Publishers.
- Saunders, Todd 1997. "Ecology and Community Design: Lessons from Northern European Ecological Communities." In Roseland, Mark (Ed.), *Eco-city Dimensions: Healthy Communities, Healthy Planet*. Gabriola Island, BC: New Society Publishers.
- Schechter, Stephen 2002. "What Do We Mean When We Talk About Community?" Paper presented at colloque, *Gender, Community, and Citizenship*, Canadian Studies Association, Princeton University, March 8, 2002. Unpublished.
- Scherer, Jacqueline 1972. *Contemporary Community: Sociological Illusion or Reality?* London, UK: Tavistock Publications.
- Schiltz, Michael and Gert Verschraegen 2002. "Spencer Brown, Luhmann, and Autology." *Cybernetics and Human Knowing* 9(3-4):55-78.
- Seamon, David and Robert Mugerauer 1985. "Dwelling, Place and Environment: An Introduction." In Seamon, David and Robert Mugerauer (Eds.), *Dwelling, Place and*

Environment: Towards a Phenomenology of Person and World. Dordrecht, Netherlands: Martinus Nijhoff Publishers.

Segal, Lynn 2001 (Second Edition). *The Dream of Reality: Heinz von Foerster's Constructivism.* Norton, NY: Springer-Verlag New York, Inc.

Sirianni, Carmen and Lewis Friedland 2002. "Communitarianism" Civic Practice Network: <http://www.cpn.org/cpn/sections/tools/models/communitarianism.html>

Smale, Bill 1995. "From Outrage to Insight (?)" In Metcalf, Bill (Ed.), *From Utopian Dreaming to Communal Reality.* Sydney: University of New South Wales Press.

Spangler, David 1985. "Forward." In McLaughlin, Corinne and Gordon Davidson, *Builders of the Dawn: Community Lifestyles in a Changing World.* Summertown, TN: Book Publishing Company.

Spencer Brown, George 1969 (Second Edition). *Laws of Form.* London: George Allen and Unwin Ltd.

Stacey, Margaret 1969. "The Myth of Community Studies." *British Journal of Sociology* 20:134-44.

Stein, Maurice R. 1960. *The Eclipse of Community.* Princeton: Princeton University Press.

Stichweh, Rudolf 2000 (translated by Klaus Dammann). "Semantik und Sozialestruktur" ["Semantics and Social Structure"]. *Soziale Systeme* 6(2000):237-250.

Teubner, Gunther 1993. *Law as an Autopoietic System.* Oxford, UK: Blackwell Publishers.

- Tönnies, Ferdinand (translated and edited by Charles P. Loomis) 1957. *Community and Society (Gemeinschaft und Gesellschaft)*. East Lansing, Michigan: The Michigan State University Press.
- Tudor, Andrew 1982. *Beyond Empiricism: Philosophy of Science in Sociology*. London: Routledge and Kegan Paul.
- Turner, Frederick 1997. "Foreword: chaos and social science," in Eve, Raymond A., Sara Horsfall, and Mary E. Lee, *Chaos, Complexity, and Sociology: Myths, Models, and Theories*. Thousand Oaks: Sage Publications.
- Umpleby, Stuart A. 2001. "What Comes After Second Order Cybernetics?" *Cybernetics and Human Knowing*. 8(3):87-89.
- University of Guelph 1992. *Faculty of Graduate Studies New Program Proposal: Ph.D. in Rural Studies in the Field: Sustainable Rural Communities*. Guelph, ON: University of Guelph.
- Van Den Abbeele, Georges 1991. "Introduction." In Miami Theory Collective (Ed.), *Community at Loose Ends*, pp.ix-xxvi. Minneapolis, MN: University of Minnesota Press.
- Vandenberghe, Frederic 1999. "Obituaries/Profiles: Niklas Luhmann, 1927-1998." "Systemic super-theorist of the social" *Radical Philosophy* 94(March/April). Available on-line at <http://www.radicalphilosophy.com>. Accessed August 5, 2003.
- Vanier Institute of the Family 1986. "Preface." Ross, David P. and Peter J. Usher, *From the Roots Up: Economic Development as if Community Mattered*. Croton-on-Hudson, New York: The Bootstrap Press.

- Vidich, A.J., J. Bensman, and M. Stein 1964. *Reflections on Community Studies*. New York: John Wiley and Sons, Inc.
- Vitek, William 1996a. "Preface." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.
- Vitek, William 1996b. "Rediscovering the Landscape." In Vitek, William and Wes Jackson (Eds.), *Rooted in the Land: Essays on Community and Place*. New Haven: Yale University Press.
- Von Bertalanffy, Ludwig 1968. *General Systems Theory: Foundations Development Applications*. New York: Braziller.
- Von Foerster, Heinz 1984. "On Constructing a Reality" in Watzlawick, Paul, *The Invented Reality*. New York: W. W. Norton & Company, Inc.
- Wall, Ellen 1994. "Healthy Rural Communities, Values, and Agroecosystem Health." *Discussion Paper #4, Agroecosystem Health Project*. University of Guelph, Guelph, Ontario.
- Warren, Roland L. 1963. *The Community in America*. Chicago, IL: Rand McNally & Company.
- Warren, Roland.L. 1978. *Perspectives on the American Community*. Chicago, IL: Rand McNally & Company.
- Wellman, Barry, Peter J. Carrington, and Alan Hall 1988. "Networks as Personal Communities" in Wellman, Barry and S. D. Berkowitz (Eds.), *Social Structures: A Network Approach*. New York: Cambridge University Press.

- Wenger, Etienne 1999. "Communities of Practice: Learning as a Social System" *Systems Thinker*.
- Wilkinson, Kenneth P. 1970. "The community as a social field." *Social Forces*. 48(3):311-322.
- Wilkinson, Kenneth P. 1979. "Social well-being and community." *Journal of the Community Development Society*. Vol.10(1):5-16.
- Wilkinson, Kenneth P. 1986. "In Search of the Community in the Changing Countryside," *Rural Sociology* 51(1):1-17.
- Wilkinson, Kenneth P. 1990. "Crime and community," in Luloff, A.E. and Louis E. Swanson (Eds.), *American Rural Communities*. Boulder: Westview Press.
- Wilkinson, Kenneth P. 1991. *The Community in Rural America*. Westport, CT: Greenwood Publishing Group, Inc.
- Williams, Raymond 1977. *Marxism and Literature*. Bath, UK: Oxford University Press.
- Williams, Raymond 1985. *Keywords: A Vocabulary of Culture and Society* (Revised edition). New York: Oxford University Press.
- Willis, Cecil L. 1977. "Definitions of Community II: An Examination of Definitions of Community Since 1950." *The Southern Sociologist*, 9 (1) fall, 14-19.
- Worster, Donald 1984. "Good Farming and the Public Good." In Jackson, Wes, Wendell Berry, and Bruce Colman (Eds.), *Meeting The Expectations of the Land*. San Francisco: North Point Press.

APPENDIX. NIKLAS LUHMANN (1927-1998)

Luhmann began his career as a sociologist in 1966 upon receiving his PhD from the University of Münster at the age of 39. In 1968, Luhmann was the first professor formally appointed at the newly founded University of Bielefeld, Germany. Prior to this he worked in public administration, a career based upon his education in law.

Luhmann was often referred to as a one-man theory factory (Hess 1998; Vandenberghe 1999). He produced more than 40 books and at least 350 journal articles. His career-long goal was to develop a general theory of society. His two books, *Social System* (1995) and *Die Gesellschaft der Gesellschaft* [The Society of Societies] (1997), document this general theory. Hornung (1999) describes these two books as a *tour de force* that is unrivaled in contemporary sociology.

It is difficult to find an appropriate single label to define Luhmann's work because he was one of the very few contemporary sociologists who changed our paradigms (Hornung 1999). Luhmann is a sociologist because he studied society, yet his approach is interdisciplinary. The early influences upon Luhmann's work include the phenomenology of Husserl, the philosophy of Descartes and Kant, early functionalist anthropology of Malinowski and Radcliff-Brown, and social systems theory of Parsons (Vandenberghe 1999). Later influences include the general systems theory of von Bertalanffy, the second-order cybernetics of von Foerster, the non-classical logic of Spencer Brown, and the constructivist theories of knowledge of Maturana and Varela.

Given Luhmann's atypical approach to theorising about society, sociologists and other North American scientists are usually not familiar with his work. Generally, he is not widely read in English. The sheer difficulty and complexity of Luhmann's highly

abstract systems theory is an inhibiting factor. Vandenberghe provides an appropriate account of what it is like to understand Luhmann's work: "One can enter the theory by a multiplicity of conceptual gates – such as complexity, contingency, system, environment, meaning, communication, self-reference, openness through closure, and so forth – but as one can never be sure to be on the right track, it is often tempting to go for the next exit" (Vandenberghe 1999).

Resources:

- The Sociocyberforum website (<http://www.sociocyberforum.org>) has links to related sites, a list of dissertations that draw upon Luhmann's theories, and a list of Luhmann's works that are available in English.
- The Sociocybernetics Research Committee of the International Sociological Association (<http://www.unizar.es/sociocybernetics/indice.html>) includes many researchers interested in Luhmann's work and in a second-order philosophy of social systems.