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METAMORPHOSIS:

A PHENOMENOLOGICAL STUDY OF THE PSYCHOLOGY OF MORPHOGENETIC
CHANGE IN HUMAN SYSTEMS

A Dissertation Presented

by

Jean P. Reid

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

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Education

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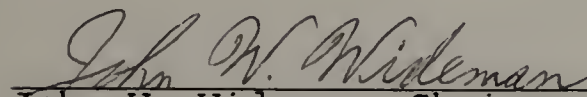
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ABSTRACT

METAMORPHOSIS:

A PHENOMENOLOGICAL STUDY OF THE PSYCHOLOGY OF MORPHOGENETIC

CHANGE IN HUMAN SYSTEMS

May 1988

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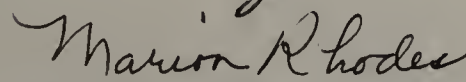
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This study was designed as a preliminary exploration of the experience of morphogenetic change in human systems. Theoretical formulations of the phenomenon of morphogenetic change abound in the literature of system theory, the sciences, and in the fields of family and individual therapy. However, very little research has been done to correlate the theoretical formulations with the actual experience of human beings undergoing change.

In this study, qualitative research was done with 12 participants. Data consisted of in-depth interviews which were condensed into profiles. These profiles were analyzed for elements, sequences and themes of the experience of change. The analyses were then compared with each other and an experience-based theory was derived from the data. This

theory was compared to the theoretical material from the above mentioned disciplines.

The experience was found to correspond to the theoretical formulations in general but not in specific. The experiences did not follow any invariant sequence, nor did they all consist of the same components. Most of the elements of the theoretical formulation were present in the interviews as a whole, but not in each individual interview. The interviews added elements which were not included in the theoretical formulations.

Information from the participants which is useful for others undergoing the process, and for those in a helping role, was then compiled.

This study does not claim to produce definitive information regarding human experience, but rather to initiate a line of inquiry which will be of great benefit to those undergoing morphogenetic change with its attendant discomfort, and to those assisting in the process: family members, therapists, medical practitioners, clergy, etc. An understanding of the process plays an important part in facilitating it.

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INTRODUCTION

Background of the Problem

There has been, in recent years, a shift in some of the
fundamental assumptions on the leading edge of western
scientific thought. Classical thermodynamics and inevitable
entropic degeneration are no longer universally accepted
models for the workings of the universe. A new paradigm has
arisen, which takes into account a side of existence which
was not addressed by Newtonian assumptions: How systems
form, and how they evolve to higher levels of order,
organization and integration. Sometimes things do not run
down, decay, become more chaotic; instead they "run up", or
become more complex and organized. This occurs on the
physical/chemical level, as well as in the realm of living
beings. This model is called "order through fluctuation"
(Prigogine & Stengers, 1984), and posits that systems are
inherently capable of self-transcendence--that they can
generate a new organization from within.

In Prigoginian terms, all systems contain
subsystems, which are continually "fluctuating".
At times, a single fluctuation, or a combination
of them may become so powerful, as a result of
positive feedback, that it shatters the pre-
existing organization. At this revolutionary
moment--the authors call it a "singular moment",
or a "bifurcation point"--it is inherently
impossible to determine in advance which direction
change will take: whether a system will
disintegrate into "chaos" or leap into a new, more

differentiated, higher level of "order" or
organization. (Prigogine and Stengers, p. xv)

The theory further says that systems tend to evolve in
this way if they are not prevented from doing so.

"We know today that both the biosphere as a
whole as well as its components, living or dead,
exist in far-from-equilibrium conditions. In this
context, life, far from being outside the natural
order, appears as the supreme expression of the
self-organizing processes that occur." (Prigogine
& Stengers, P. 175)

This new paradigm is creating a shift in scientific
thought, and in other areas as well. It has touched the
field of family therapy, in which homeostasis, the tendency
to maintain and return to equilibrium, is no longer the
organizing principle, and in which the principle of
morphogenesis, the tendency to create new forms, is of new
interest. Therapists are beginning to look at the potential
for self-organization and self-transcendence which is
inherent in human systems. This potential for self-
transcendence exists in all human systems on all levels and
has profound implications for our understanding of how human
beings change, grow and develop.

Relatively little research has been done on
morphogenesis in human systems. Of the family therapists
who have investigated this phenomenon, the most notable are
Lynn Hoffman (1980, 1981), Paul Dell (with H. A. Goolishian,
1979), and Richard Rabkin (1976). Rabkin coins the term
"saltology" for the process, while Dell calls it "order
through fluctuation", and Hoffman refers to it as

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"discontinuous change". Both Rabkin (1976, p. 297) and Hoffman (1981, p. 56) refer to the process of disintegration of the old organization as involving a period of dissonance, stress, or difficulty.

Statement of the Problem

New thinking in system theory provides a framework in which to investigate the phenomenon of change, growth and development in human beings. A comprehensive theory of morphogenetic change in human systems, taking into consideration information from scientific fields, general system theory, and theories generated from these by theoreticians in the fields of therapy, has yet to be assembled.

Family therapists, the primary source on the application of this theory to human beings, investigate morphogenetic change in terms of family systems. It is, however, a phenomenon of all systems, including the individual as a system. Almost nothing has been written about the process of self-transcendence in the individual as a process of system self-transcendence, letting system theory shed light on individual process.

Discussions of morphogenetic change have primarily relied on deductive reasoning from theoretical premises. Although a comprehensive theory derived in this manner may be coherent and logically complete, it is of limited use in

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practice. To use it as a guide in actual work with human systems is reminiscent of the old philosophers who were reputed to turn to the works of Aristotle to determine whether oil would freeze outdoors on a cold night.

For this reason, it is essential to turn to the basic data of the experience itself in order to produce an accurate description of the process. Since it is in the individual that any such change is actually experienced, the experience of individuals undergoing this kind of change is essential to an understanding of it. The theory provides a new framework for viewing change, but the experience itself must inform and ground the theory for it to be of practical use. Both comprehensive theory and experiential data are essential in understanding morphogenetic change.

The task, then, is twofold: 1. to assemble a comprehensive theory of morphogenetic change from existing sources, and 2. to return to the data of experience of morphogenetic change in individuals for information on the nature of the experience of this phenomenon, and to check the theory against this data, creating a useful description of the nature, components and stages of the process.

Method of Inquiry

There are basically two parts to the investigation of this process. The first is the study of the theoretical foundations of the new paradigm, in science, general system

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theory, and family therapy. This is essentially a review of the literature, and will consist of a description of various theories and the distillation of these theories into a unified and general theory of morphogenetic change in human systems.

Questions which will be addressed in the theoretical part include:

1. What is the nature of the process of morphogenetic change?

2. What are the components of the process of morphogenetic change in human systems?

3. What is the relationship between these components?

4. What is the relationship between crisis and morphogenetic change?

This will yield a theoretical abstraction of the process.

The second part is the exploration of the phenomenological aspect of change through the direct experience of human systems that have undergone this kind of change. This yields a qualitatively different type of data, which illuminates the theoretical in a way which is essential to a true understanding of this phenomenon, and provides a rich source of data that is unavailable in any other way.

Questions that will be addressed in the phenomenological part include:

1. What is the experience of morphogenetic change like?

2. What are the components of the process?

3. Are there identifiable turning points in the process?

4. Are there components which are always present and which, therefore, begin to create a definition of the process?

5. Are there identifiable factors which enabled participants to successfully complete the change/reorganization?

6. What outside intervention or inside attitudes help or hinder the process?

Since the intent of this part of the study is to come to an understanding of the phenomenology of morphogenetic change, it follows that the most appropriate method is a qualitative research method. We are interested not in the quantity of the change, but rather the quality. The method of open-ended, in-depth interviewing is uniquely suited to the task, allowing the participants to recount the experience in their own words with minimal interference from the interviewer.

> Qualitative measures describe the experience of people in depth. The data are open-ended in order to find out what people's lives, experiences, and interactions mean to them in their own terms and in their natural settings. Qualitative measures permit the evaluation researcher to record and understand people on their own terms. (Patton, 1986, p.22)

Significance of the Study

If it is true that all systems, and particularly human systems, tend toward self-transcendence, then many of the basic operating principles of psychotherapy and other disciplines dealing with change in human systems must be re-examined. The position of the "change agent" becomes one of cooperating with an inherent tendency, rather than trying to counteract or overcome homeostatic "forces". This requires a reorientation of thinking as well as opening the possibility for new and more effective techniques for furthering change.

If dissonance and difficulty, and their extreme, crisis, are an integral part of the process of morphogenetic change, then we must also re-examine our beliefs about these human experiences. Crisis and pain cannot be viewed as unfortunate occurrences to be avoided or alleviated as soon as possible. They can instead be seen as an opportunity for major change. Greer (1980) speaks to this in his article "Toward a Developmental View of Adult Crisis: A Re-examination of Crisis Theory"

> "Basically.. an individual is in crisis when faced with a threat to basic psycho-social supplies where his or her normal and available adaptive resources are exceeded for a time. The individual is at least temporarily unable to modify the resultant stress or tension through his or her typical coping or problem solving strategies. The disequilibrium of crisis affords the person a unique opportunity from which, depending upon certain exogenous and endogenous factors, one may emerge psychologically healthier than prior to the crisis through extension of

one's repertoire of effective problem-solving skills." (p.17).

To view crisis in this way is to create a new context for change, and a new way of dealing with often painful and upsetting circumstances. It is a view that empowers people to participate in their own growth, rather than becoming victims of a painful process.

This study is designed to shed some light on what the experience of morphogenetic change is like, how we can recognize when we ourselves or our clients or children are involved in it, and what we can do to further the process. It will contribute to therapists' understanding of the process through familiarization with people's experience as well as the more tangible benefits of finding indicators of morphogenetic change, and determining what assists and detracts from the process.

Purpose of the Study

The purpose of this study is to contribute to our understanding of morphogenetic change in human systems, and to begin to articulate this understanding in a form which will be useful as a developmental model to therapists, parents, organizational developers, and anyone else who works with developing, evolving human systems, particularly the individual as a system.

CHAPTER II
REVIEW OF THE LITERATURE: THEORIES OF SYSTEM CHANGE

As we begin to investigate morphogenetic change, we find it referred to in a variety of terminologies: "discontinuous change", "second order change" and "saltology" in the language of family therapy, "order through fluctuation" in physics, "morphogenesis" in system theory, and "the creative leap" in various other humanistic disciplines. These descriptive terms do not exhaust the multitude of terms which have been used to describe this phenomenon, and this fact in itself is indicative of its nature. As a field of study, it does not belong to any one discipline or area of knowledge. It appears in the literature of chemistry, biology, social science, psychology, religion, politics, economics, creativity, and mathematics--in short, in nearly every field of human inquiry.

Due to the universal occurrence of this kind of change in the phenomenal world, and the resulting richness of the terminologies and emphases of the writings about it, a much fuller and more complete picture of the phenomenon can be gained through the study of change in diverse kinds of systems. I will examine sources from various fields, and attempt a synthesis of these viewpoints which is applicable to human systems.

The Problem of Language

Richard Rabkin (1976), a theorist in the field of family therapy, to whom we owe the coining of the term "Saltology", comments on the difficulty of expression of the process of morphogenetic change. He attributes the problem to language: "Western language, whose strength lies in its ability to handle slow, gradual change expresses the other type of change (sudden, total systemic change) awkwardly or not at all" (Rabkin, 1976, p. 294). That it is difficult to talk about has certainly been demonstrated in the process of writing this paper, and it does seem to be the case that a large part of this difficulty is linguistic. A distinguishing characteristic of this type of change is that it is a qualitative change, and qualitative changes are hard to express accurately in a culture that is as quantitatively oriented as the modern western world. This paper is, in a sense, an attempt to express the inexpressible, or at least to approximate an expression and contribute to the growing body of writings on the topic.

In spite of these difficulties system theorists have attempted descriptions of this process with some success, and the new way of thinking is beginning to provide a new frame of reference and vocabulary for exploring it. It is necessary to continue the exploration and to continue to build this new frame of reference and vocabulary. The study

of morphogenetic change provides a missing piece in system theory. Rabkin sees this study as "the examination of a wider field encompassing changes in all systems. . . together with the study of cybernetics and structuralism, 'saltology' can be regarded as a basic branch of general systems theory" (Rabkin, 1976, p. 296). It is as a branch of system theory that it will be approached in this paper.

What is a System, and How Does it Work?

Since morphogenetic change has been defined as a branch of General System Theory, it follows that GST forms the foundation of this study. A brief overview of what a system is and how systems operate is necessary, especially given that the predominant vocabulary of this paper will be the language of General System Theory. Another essential source of information on the nature of systems is Humberto Maturana, a biologist whose work is the study of autopoietic systems. We will consider these two sources of general information on systems before moving on to investigate the morphogenetic aspect of systems in particular.

Ludwig von Bertalanffy, although by no means the only system theorist, is the author of the major work on the subject, and is the obvious source for this information. Bertalanffy's work in synthesizing the various set and system theories created a unified theory which forms the foundation for all theorists who have followed him.

General System Theory is an integrative theory, the study of organization, rather than of the things organized. Bertalanffy says that "We cannot reduce the biological, behavioral, and social levels to the lowest level, that of the constructs and laws of physics" (1968, p. 49). The study of systems goes beyond the quantification of things into their organization:

> "Thus there exist models, principles and laws that apply to generalized systems or their subclasses, irrespective of their particular kind, the nature of their component elements, and the relations or "forces" between them. It seems legitimate to ask for a theory, not of systems of a more or less special kind, but of universal principles applying to systems in general." (Bertalanffy, 1968, p. 32)

What then, is a system, and what are the principles of General System Theory? Bertalanffy distinguishes two main kinds of systems: open and closed.

The study of closed systems, Norbert Weiner's cybernetics, is the study of systems which are considered to be isolated from their environments in terms of energy, and which are the only systems which conventional physics can study. These systems obey the second law of thermodynamics, and tend toward a state of static equilibrium, maximum entropy, and most probable, i.e. random, distribution. Their processes can be measured and are predictable. The concept of feedback is central to systems theory, and closed systems operate by means of negative feedback--information about the output of a system, which is fed back into it and serves to

keep the system within the bounds of its equilibrium,
counteracting change. Equilibrium in closed systems is a
static state which requires the least amount of energy to
perpetuate itself.

The example of this is a thermostat, which receives
feedback about the temperature from the outside, which
causes it to turn on or off, depending on what is needed to
remain within a small range of temperature. Another example
is an automatic pilot, which registers when the airplane is
off course so that it may adjust.

Open systems, on the other hand, operate according to
another model. An open system "maintains itself in a
continuous inflow and outflow, a building up and breaking
down of components, never being, so long as it is alive, in
a state of chemical and thermodynamic [static] equilibrium
but maintained in a so-called steady state" (Bertalanffy,
1968, p. 39), or dynamic equilibrium, characterized by
constant flux within certain parameters. Open systems are by
definition in a state of non-equilibrium, or flux, and
require this constant exchange to continue to exist. If
this exchange is interrupted, the system functions as a
closed system and "runs down", or moves toward static
equilibrium/death.

Open systems contradict many of the laws of
conventional physics. They do not tend toward thermodynamic
equilibrium and random distribution, or disorder, nor do

they produce identical effects from identical causes. They function, instead, in a complex web of interconnected processes, outlined below, and tend toward order and structure--away from the random.

A complication is added in the use of the term "closed" to describe a relative attribute of open systems. Within the category of open systems, i.e. functioning far from static equilibrium, systems can be seen as existing on a continuum of relatively open or closed. The permeability of the boundary of a system determines relative openness--some systems allow exchange of certain materials, energy or information and not others, or under certain conditions and not others.

Within the category of non-equilibrium systems, openness is also used with another meaning, referring to a continuum of internal openness of a system to the potential for change within itself. This refers to the flexibility/rigidity of the relationships between the components and within the components themselves.[1]

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[1]   The question of openness deserves a little more attention here. The question is, open to what? and open where? A closed system is open to feedback, but closed to energy, thus the emphasis on thermodynamics in connection with closed system cybernetics. An open system is open to feedback, and also to energy, matter or other information from the outside. An open system may also be open to "novelty within", or anything within itself that can generate something new. (J Wideman, personal communication 1987) that is, to the possibility of generating a new organization from within. Erich Jantsch's formulation of three kinds of internal self-organizing behavior comments on this possibility: 1. mechanistic systems in which the

In any case, within open systems, several principles apply (Watzlawick, Beavin, and Jackson, 1967, pp. 123-128):

1. <u>Nonsummativity</u>: "A system cannot be taken for the sum of its parts; indeed formal analysis of artificially isolated segments would destroy the very object of interest. It is necessary to neglect the parts for the gestalt and attend to the core of its complexity, its organization. The psychological concept of gestalt is only one way of expressing the principle of non-summativity; in other fields there is great interest in the <u>emergent quality</u> that arises out of the interrelation of two or more elements" (Watzlawick et al. 1967, p. 125). [This refers to a difference analogous to the difference between the pile of building materials and the finished house, or the component cells and the living organism. This difference is qualitative. The whole is not reducible to the parts, i.e. you do not learn everything about houses by examining the lumber, nails, pipes and wires]

2. <u>Wholeness</u>: "Every part of a system is so related to its fellow parts that a change in one

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internal organization does not change, 2. adaptive systems in which the internal organization changes only according to preprogrammed information (genetic code) and 3. inventive systems which change their internal organization through internally generated information (1975, p. 66).

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part will cause a change in all of them and in the
total system. That is, a system behaves not as a
simple composite of independent elements, but
coherently and as an inseparable whole"
(Watzlawick et al., 1967, p. 123). Within this
principle of wholeness and interdependence, the
components of a system have relative independence.
This independence is one of the variables in
determining the nature of a system, and a factor
in the developmental processes of systems.[2]

    3. Feedback: The parts of a system are
united through complex simultaneous, circular and
interdependent feedback mechanisms, both positive
and negative. Positive feedback, as opposed to
negative feedback described above, tends to
amplify deviation and create change. The system as
a whole is related to its environment (higher
order system) through feedback. The word feedback
refers to communication, adding the concept of
circularity into the word--what the system or
component does influences its environment, which
in turn influences it.

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[2]   The principles of nonsummativity and wholeness both
refer to the fact that "the whole is more than the sum of
the parts". That "more" is the relationships between the
parts and the organization created by these relationships.

4. Equifinality: The nature of the
organization of the system determines its
outcomes, not the conditions that precipitate the
process. Different initial conditions, then, may
result in the same outcome. "If the equifinal
behavior of open systems is based on their
independence from initial conditions, then not
only may different initial conditions yield the
same final result, but different results may be
produced by the same 'causes'" (Watzlawick et al.,
1976, p. 127). Individuals growing up in very
similar initial conditions may end up different,
or those starting in very different conditions may
become similar. This contradicts a fundamental
law of science: similar causes will produce
similar effects.

5. Homeostasis: The ability of a system to
reach a state of dynamic equilibrium which is
maintained within certain parameters. Through
negative feedback mechanisms, the system
compensates for fluctuations and remains in the
same overall balance. Also known as morphostasis,
referring to the fact that the "form" stays the
same. Homeostasis is the mechanism of
equifinality--the way a system reaches the same

end (equilibrium) by compensating for different disturbances.

6. Morphogenesis: Through positive feedback processes the system is able to transcend its homeostatic equilibrium and evolve to a new level of organization. The form does not stay the same. Morphogenesis can be seen as the means by which a system can reach different ends through reacting differently to similar causes. Homeostasis and morphogenesis are seen as two inherent and opposite tendencies in system dynamics.

7. Causality: The question of causality is a major concern of system theory. Linear causality refers to classical cause and effect relationships. Circular causality refers to a circular interdependence of causal relationships within a system (e.g. the more A, the less B, and the less B, the more A). Mutual causality, or dynamic interaction, elaborates on circular causality, being even less "linear" and referring to causal relationships that are simultaneous and multi-directional. Bertalanffy says:

> While the prototype of undirected
> physical processes in linear causality
> (cause A being followed by effect B),
> the cybernetic model introduces circular
> causality by way of the feedback loop,
> and this makes for the self-regulation,
> goal-directedness, homeostasis, etc., of
> the system. In contrast, the more

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> general system model is that of <u>dynamic
> interaction</u> between many variables.
> (Bertalanffy, 1967, p. 67)

It is important to note that the concept of causality
as the basic linear relationship between the processes of
two elements is preserved here, and the pattern of causal
relationships is what varies. [3]

Three other principles of systems can be found in
Bertalanffy: hierarchical order, progressive mechanization
or differentiation, and progressive centralization.

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[3]   System thinkers have generally grappled with the
concept of causality, trying to redefine it without relying
on linear causality at all. The use of the concept of
information rather than energy as that to which systems may
be open moves one step away from the concept of direct
linear causality, which really belongs in the predictable
world of physics. "Information" at least admits that the
process is much more complicated.
     Watzlawick, Beavin and Jackson (1967) capture the
distinct contrast between a world based on information and a
world based on energy in the comparison of a man kicking a
pebble versus kicking a dog. If the man kicks a pebble,
energy is transferred from the foot to the pebble and the
pebble is displaced. However, if the man kicks a dog,
rather than be displaced, the dog may turn on the man and
bark or bite him. The dog in this case takes the energy for
its reaction from its own internal state, and not from the
kick. "What is transferred, therefore, is no longer energy,
but rather information." (p. 29)
     Maturana's concept, described below, goes the rest of the
way-there are only occasions for interaction, one organism
cannot cause any change in another directly, because the
changed organism is structurally determined and only changes
itself. The mechanism by which the influence occurs,
however, can still be reduced to the concept of causality as
the interaction of one thing with another and the immediate
results of this interaction, whether or not the either of
them can be said to have "made the other do anything"
directly. Maturana uses the word trigger instead of cause.
It is not necessary to get rid of the concept of linear
causality, but only to realize that it describes one realm
of existence and not another--a microscopic process, and not
the whole story, how things happen, and not why.

Hierarchical order refers to the fact that the elements
or components of systems are themselves systems, and the
systems themselves are parts of larger systems. "Such
hierarchical structure and combination into systems of ever
higher order, is characteristic of reality as a whole"
(Bertalanffy, 1968, p. 74). In this sense hierarchy does
not refer to a power or dominance relationship, but to the
level of complexity of the system. This will be discussed
further below in the section on hierarchy.

Progressive differentiation refers to the development
of systems. The components of a system tend to obey a
developmental process in which they attain more autonomy,
differentiation and specialization within the system. The
implications of this are: 1. that with more specialization
of function, each component becomes more necessary in the
functioning of the whole, so the loss of one component is
more disastrous and the system is less stable overall; and
2. that a system becomes able to change or adapt more easily
and effectively because it is not necessary to achieve total
reorganization of the entire system at once, but only of the
parts affected (Bertalanffy, 1968 p. 70).

Progressive centralization refers to the tendency of
systems to develop a center, or leading part, around which
they are organized (Bertalanffy, 1968, p. 71). "Such centers
may exert 'trigger causality', i.e., a small change in a
leading part may, by way of amplification mechanisms, cause

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large changes in the total system. In this way a hierarchic order [this time in the sense of power relationship] of parts or processes may be established" (Bertalanffy, 1968, p. 213).

An open system, then, refers to a dynamic organization of interrelated components, functioning as a whole which is qualitatively different from any collection of the parts by virtue of its organization. A system maintains itself either within consistent parameters, or moving toward higher levels of organization, through responses to feedback, both internally and externally generated. Systems undergo a developmental process to more differentiated states, that is, the relationships between the components change character.

Structuralism

The work of Humberto Maturana, a Chilean biologist, has produced some radical concepts in the theory of systems, which contribute to this study, filling in some missing pieces and redefining some basic concepts. His work seems to separate system theory from classical scientific assumptions in a way that had not been achieved before, and adds to the coherence of general system theory as a different mode of thought.

Maturana's work centers around the living systems, a subset of systems in general. He begins with the question

of what defines a living system. In "Autopoiesis: The Organization of Living Systems", Varela, Maturana, and Uribe (1974) pose the question thus: "What is the necessary and sufficient organization for a given system to be a living unity?" (p. 187) They reply that the answer is not in characteristics of the components of the system, but must be in the network of interactions that constitute the unity. Maturana defines these interactions as autopoietic, or self-producing. Autopoietic organization is

> "defined as a unity by a network of productions of components which (i) participate recursively in the same network of productions of components which produced these components, and (ii) realize the network of productions as a unity in the space in which the components exist. Consider for example the case of a cell: it is a network of chemical reactions which produce molecules such that (i) through their interactions generate and participate recursively in the same network of reactions which produced them, and (ii) realize the cell as a physical unity. Thus the cell as a physical unity, topographically and operationally separable from the background, remains as such only insofar as this organization is continuously realized under permanent turnover of matter, regardless of its changes in form and specificity of its constituitive chemical reactions. (Varela et al, 1974, p. 188)

In other words, an autopoietic, or living, system is one which by nature perpetuates itself, or rather whose nature is to produce the processes which perpetuate itself, in spite of the fact that its components, its structure and material, can change. An autopoietic system has a domain within which it can compensate for perturbations and remain a unity and continue to produce itself. An autopoietic

system's existence and continuation is dependent on its operation.

An Allopoietic system like a machine, on the other hand, is not dependent on its operation for its existence. It produces a product that is other than itself, and depends on outside agents for its existence (Varela et al. 1974, p. 189). An autopoietic system is a particular kind of system, operating under the general laws of system theory, and under some particular laws of autopoietic systems.

What, then, is the "itself" that remains unchanged? Having defined living systems as autopoietic systems, Maturana helps to answer this question by defining two terms in relation to these systems: organization and structure.

Organization means "the relationships among components that must remain invariant in a composite unity for it not to change its class identity and become something else" (Zeleny, 1980, p. 48). e.g. the fact that the legs need to be perpendicular to the board to constitute a table. An autopoietic system is organizationally closed, must maintain its organization in order to remain itself.

Structure is "the actual components and the actual relations between them" (Zeleny, 1980, p. 48), that is, this board and these legs that constitute this table, the manifestation of the organization. Structure translates roughly as "form" or "manifestation". Structural elements can undergo considerable change and still constitute a

table, and, in fact, it is important to remember that structure is constantly changing in living systems, in the process of adaptation to the medium. Walking down the stairs is a process of continual structural change. The changes that the structure can undergo, however, are totally determined by that structure. Your knees only bend one way, you can only go at a limited range of velocity, and your wanting to go down at that particular time is determined by who you are. A system's medium is constantly triggering structural changes, and the system's adaptation to its medium consists of these structural changes. A system continues to exist so long as the changes triggered by the medium are structural, and do not change its organization. If the organization changes, it disintegrates and becomes a different unity/system by definition.

There is some ambiguity in the use of the terms structure and organization, and in determining what Maturana means by a "new" unity, and by "disintegrate" and whether this disintegration is to be interpreted on a physical level or also on a metaphysical one. This problem arises because Maturana is a biologist, working with single organisms, and his theory originates in a context where the disintegration is physical.

Luckhurst (1985) interprets Maturana's distinction as meaning that a change of organization means that the system literally ceases to exist, because organization refers only

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to the "whole" as it is (p. 8). This is literally true, since a system is the interdependent organization of its components. This ceasing to exist, however, may refer to reorganization on a lower level, in the case of death or disintegration; or on a higher, more integrated level, as in the case of morphogenetic change.

When a psychological or composite (whose components are individuals) system undergoes a change to higher organization, something remains the same which is recognizable as the same unity, but qualitatively changed. Dell, in his explanation of Maturana (1985), defines change within the existing limits of a system as change of structure. A change in these limits is a change in organization, and results in what could be called a new system, since the old system certainly does not exist, but which can also be recognized as maintaining its identity as the same unity in our perception.

A system which does not qualitatively change has only changed its structure; a system which undergoes morphogenetic change, changes its organization and its structure. It is this definition that seems most useful for the present inquiry. Unfortunately it leaves us with a question: If the organization of a system changes, what is it that stays the same, the meta-organization, the organization of organization, something called the unity? Paul Dell refers to it as "ongoingness":

In human systems such as families, groups, and organizations. . . . what is maintained is not a particular system but rather something that might be called "ongoingness" and capacity for continued "ongoingness". This "ongoingness" is obviously not the same system, for "it" has changed and continues to change. As Bateson (1975) has commented, the word change immediately contradicts the subject of the discourse. (Dell & Goolishian, 1979, p. 15)

To return to Maturana himself, the constant structural adaptation of an autopoietic system is called "structural coupling", and is the nature of interactions between systems, which adapt their structures to each other, but only insofar as their structures remain coherently organized in their own way. The structural changes are not determined by the medium (other system) interacted with, but by the system itself.

An autopoietic system is a structurally-specified system. This means that at any instant of its operation the structure of an autopoietic system specifies into what structural configuration it goes as a result of structural transition, regardless of whether this results from its internal dynamics or from its interactions with the medium. Therefore, the medium, as an independent entity that interacts with it, does not specify through the interactions the structural configurations that it adopts in its continuous structural change, but it selects them through their differential triggering. Consequently, the structure that an autopoietic system has at any moment is the central determinant of its becoming, even as it interacts with the medium which only constitutes a field for structural selection in its domain of structural coupling. (Zeleney, 1980, p. 70)

In this frame of reference the concepts of cause, effect, purpose and function have only relative existence, and become only formulas through which we organize our

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experience. We cannot cause a change in a system, we can only be the occasion which triggers its changing itself, its structural adaptation. The effect that we have on a system is not the result of our "cause", but rather a result of an internal process in the system affected. The system responds to the medium/environment according to its structure; there is no other way for it to behave, and this behavior maintains its organization.

The concept of structural coherence redefines Bertalanffy's homeostasis in a way that does not require that the system be purposefully "trying " to stay the same, but rather it just is what it is. That sameness is just the only system there is. Luckhurst says that homeostasis is just a "description of how the processes of change lead to stability" (1985, p. 6), that is, of how a system changes its structure and maintains its organization.

A system changes its structure in response to stimuli from inside as well as from outside itself. When the structural change required exceeds the limits of the system, it changes its organization. This change is also determined by the system itself, not by the outside stimulus--it can only change to a new organization which is potential within its components, since the new system is made of these same components. Whether the initial stimulus was internal or external, the outcome when a system reorganizes on a higher level is the same--the system changes itself within its own

capabilities. All change in living systems is self-change, all morphogenetic change is self-organization.

Morphogenesis

We can now turn to the morphogenetic aspect of systems specifically--how do systems reorganize, transcending their own boundaries, forming new systems? Again, we start with Bertalanffy, and look to General System Theory for the original foundation of this concept.

Although in the family therapy field the words General System Theory often bring to mind the concept of homeostasis, in actual fact Bertalanffy was very much interested in the "morphogenetic" aspect of open systems. First, he makes a clear distinction between Norbert Weiner's cybernetics (1948) and General System Theory. Cybernetics [4]

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[4] There is considerable new interest in cybernetics in the field of family therapy in recent years. It seems to be in a process of redefinition in the new "second order cybernetics" (distinguished from Maruyama's "second cybernetics" or study of deviation amplifying processes, discussed below) which takes into account the effect of the observer as part of the system. First order cybernetics also takes on a new light when distinguished from GST in a way other than seeing it as a subset. In Luckhurst (1985):

> Keeney (1982) states that cybernetics is different from von Bertalanffy's general system theory which is about moving from seeing parts, that is individuals, to seeing wholes, that is, families. With cybernetics, it is a matter of moving from a focus on substance to seeing form. As Keeney states, looking at form and organization rather than at substance and matter is quite different from seeing wholes rather than individuals. (1982, p. 154-55)

Rather than being a construct for viewing closed systems, cybernetics becomes a world view that "outsystems" System

is the science of closed systems functioning according to the homeostatic model, based on error-activated feedback mechanisms, and tending toward the equilibrium of maximum homogeneity. A closed cybernetic system can only generate entropy, i.e. move toward less organized, more probable states, and can only evolve by means of information added from outside the system.

General System Theory goes farther, including the study of open systems, which maintain their structure and organization through the interaction of their components in dynamic equilibrium. Bertalanffy notes that some open systems can do more than maintain a dynamic equilibrium:

> "Living systems . . . are maintained in a state
> of fantastic improbability, in spite of
> innumerable irreversible processes continually
> going on. Even more, organisms--in individual
> ontogeny as well as phylogenetic evolution--
> develop toward more improbable states, toward
> increase of differentiation and higher order of
> matter. . . . the entropy balance in an open
> system may well be negative". (Bertalanffy, 1976,
> p. 76)

Bertalanffy is clear that a new theory to deal with the phenomenon of the shift to higher levels of organization and complexity is necessary.

> Concepts and models of equilibrium, homeostasis,
> adjustment, etc., are suitable for the
> maintenance of systems, but inadequate for
> phenomena of change, differentiation, evolution,
> negentropy, production of improbable states,
> creativity, building-up of tensions, self-
> realization, emergence, etc. (Bertalanffy, 1968,
> p. 23)

Theory.

While a closed system can, in fact, reorganize at a higher level, this reorganization is a result of energy and information added from outside the system. Open systems accomplish the same reorganization, but through the mechanism of states and processes within the system.

> In an open system increase of order and decrease of entropy is thermodynamically possible. The magnitude 'information' is defined by an expression formally identical with negative entropy. However, in a closed feedback mechanism information can only decrease, never increase, i.e., information can be transformed into 'noise,' but not vice versa. An open system may 'actively' tend toward a state of higher organization, i.e. it may pass from a lower to a higher state of order owing to conditions in the system. A [closed] feedback mechanism can 'reactively' reach a state of higher organization owing to 'learning,' i.e., information fed into the system. (Bertalanffy, 1968, p. 150)

Bertalanffy did not, however, delve very far into the processes of morphogenesis. There has been much work done in this area by others who followed him.

Dissipative Structures

Considerably more light has been shed on the process of change by the physicist and nobel prize winner Ilya Prigogine, in his theory of "dissipative structures"--a name somewhat misleading to the layperson for systems which self-transcend.[5]   Prigogine looks at the processes in systems

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5   "We have introduced the notion of 'dissipative structures' to emphasize the close association, at first paradoxical, in such situations between structure and order on one side and dissipation or waste on the other. . . . Heat transfer was considered a source of waste in classical

which are far from equilibrium in his book Order Out of Chaos: Man's New Dialogue with Nature (Prigogine & Stengers, 1984).

In this book, Prigogine eloquently repositions the model of equilibrium thermodynamics:

> The question of the relevance of equilibrium models can be reversed. In order to produce equilibrium, a system must be "protected" from the fluxes that compose nature. It must be "canned" so to speak, or put into a bottle, like the homunculus in Goethe's Faust, who addresses to the alchemist who created him: "Come, press me tenderly to your breast, but not too hard, for fear the glass might break. This is the way things are: some natural, the whole world hardly suffices what is, but what is artificial requires a closed space." In the world that we are familiar with, equilibrium is a rare and precarious state. (Prigogine & Stengers, 1984, p. 128)

In the world of thermodynamic equilibrium, life is a kind of accidental improbability, that is maintained only temporarily through the staving off by enzymes of the inevitable death and dissolution- both for the individual and life itself.

> In the context of the physics of irreversible processes, the results of biology obviously have a different meaning and different implications. We know today that both the biosphere as a whole as well as its components, living or dead, exist in far-from-equilibrium conditions. In this context, life, far from being outside the natural order, appears as the supreme expression of the self-organizing processes that occur. (Prigogine & Stengers, 1984, p. 175)

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thermodynamics. . .it becomes a source of order" (Prigogine, 1984 p. 143).

Prigogine deals with systems which are far from equilibrium. These systems have always existed, but have only been studied as exceptions to the laws of thermodynamics because of a lack of theoretical basis for studying them in their own right. His systems are not restricted to organic living organisms, but also include chemical and other non--living systems, as well as "social" or composite systems. His study is of a process that can occur when any system reaches a certain point beyond its range of equilibrium (Prigogine & Stengers, pp. 141-142).

When a system is far from equilibrium, "it becomes inordinately sensitive to external influences. Small inputs yield high, startling effects" (p. xvi). The influences which yield startling effects do so by producing in the system "fluctuations produced by their own internal activity" (Prigogine & Stengers, 1984, p. 167). These startling effects can lead a system to a new level of order.

> . . . . all systems contain subsystems, which are
> continually "fluctuating." At times, a single
> fluctuation or a combination of them may become so
> powerful, as a result of positive feedback, that
> it shatters the preexisting organization. At this
> revolutionary moment--the authors call it a
> "singular moment" or a "bifurcation point"--it is
> inherently impossible to determine in advance
> which direction change will take: whether the
> system will disintegrate into "chaos" or leap into
> a new, more differentiated, higher level of
> "order" or organization, which they call a
> "dissipative structure." (Such physical or
> chemical structures are termed dissipative
> because. compared with the structures they
> replace, they require more energy to sustain them.
> (Prigogine & Stengers, 1984, p. xv)

Prigogine maintains that order can and does arise from disorder through self-organization. The system internally reinforces a fluctuation, which may be a response to an outside influence, by means of positive feedback processes, which results in a new structure. The form of this new structure is entirely unpredictable. This principle is referred to as the new ordering principle "Order through Fluctuation". (Prigogine & Stengers, 1984, p. 178)

Hierarchical Growth

In the field of biophysics, there is another description of an analogous process in the work of John Platt, a biophysicist, on hierarchical growth. In his article, "Hierarchical Growth", published in the Bulletin of Atomic Scientists in 1970, he refers to David Bohm, a well known new wave physicist. Bohm's theory is of a universe not of things, but of flow patterns which are self maintaining and self repeating even though matter, energy and information continually flow through them. When a hierarchical structure with stable pattern comes into contact with new information or material, it is unstable until resolved either by breaking apart or by the creation of a new organization at a more inclusive level. Thus, these flow patterns can undergo sudden hierarchical growth by restructuring to a higher level of organization.

This reorganization is self-transformation, and inherently different from reorganizations brought about by an outside agent, or from those that are inherent in the development of the system.

> The classic Greek analyses and the theological and philosophical analyses of "emergent evolution" have often confused these three cases: of external design (the watchmaker); of internal developmental design built into the chromosomes (the plant); and of genuine self-transformation. that is, time emergence of better-organized patterns at a new level of organization that did not exist before, either externally or internally. Evolutionary jumps may actually be much more common than we have supposed, with evolution in general not taking place so much by steady change as by small saltatory steps of this kind which reorganize one subsystem after another. (Platt, 1970, p. 3)

Platt's categories, internal development and self-transformation, both fit the description of morphogenetic change: discontinuous and qualitative. The distinction between the two categories is useful in terms of pointing out the potential for total newness in this kind of change.

Platt elaborates the common features of this process of reorganization: the process is always preceded by dissonance- in terms of the individual, cognitive dissonance; in terms of the social order, social dissonance. The second feature of the process is the overall character of the dissonance, seeming to be widespread throughout the system.

The third characteristic is the suddenness of the restructuring when it finally happens. The preparation may

take a long time, but the restructuring is very quick, because the change is prepared for throughout the system.

The fourth characteristic of the process he refers to as simplification. The new system is simpler than the old. The example for this is the Copernican revolution. The theory that the universe revolved around the earth got so complicated, as scientists expanded it to include all of the exceptions that became apparent, that it could no longer be functional. The new theory was elegantly simple, and took all of the exceptions into account in one new principle. In the sense of inclusiveness the new order is more complex, but it embraces more complexity more easily.

The fifth characteristic is the existence of interactions between the new supersystem (which he calls level i+1) and the old subsystems (level i-1).

> The explanation for this novel interaction is
> that, when there is dissonance of conflict at the
> i level, restructuring generally cannot occur by
> changes at the i level alone because of the self-
> maintaining character of all the i level
> relationships. . . Any restructuring has to be
> built around the largest well functioning
> subsystems, that is at the i-1 level--by fitting
> them into the larger integrative needs of the i+1
> supersystem within which the conflict has to be
> resolved. (Platt, 1970, p. 46)

This means that the new organization does not come from a rearrangement of the system as it is, since it is maintained through its own homeostatic processes, but rather from changes in the subsystems as they reorganize to become

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part of a new higher level system. This produces new properties that were not apparent in the subsets before.

Clifford Grobstein in "Hierarchical Order and Neogenesis" (1973) talks about the origin of higher order sets, or neogenesis, describing this relationship in terms of the emergence of these new properties.

> The central point is that in each instance of neogenesis the properties that appear during the origin of the new set are not the simple sum of the properties of the components that make up the set. . . . It is true that the properties of the new set are in some sense immanent in the properties of the components. . . Nonetheless, particularly in biological systems, it takes both a transformation and the establishment of a new context for these properties to be manifested. Stated in other terms, the new information generated by the relationships that are established as the new set appears must be read in the context of the next higher set. (Grobstein, 1973, p. 450)

Howard Pattee (1973) does a nice job of interpreting this in a frame of reference that is more easily translatable for our purposes:

> Clifford Grobstein looks carefully at . . . the way structure and information at one level are reinterpreted at a higher level. Properties that appear to emerge in developing collections may be understood as reading a message in a new context. This context is established by the relationships in the collection, and therefore is not to be found in the detailed structures of the lower level. It is this context-change in what he calls the set-superset transition that creates new hierarchical levels. (Pattee, 1973 p. xii)

In other words, the quality which emerges in the new order has something to do with a new meaning of an old thing--the new order creates a different context in which

the old components are reinterpreted, and have a new organization, or relationship to each other.

Step Function and Ultrastability

Ross Ashby, a scientist involved in similar theoretical concerns, and working at the same time but independent of Bertalanffy, evolved a theory very similar to GST, dealing with interactions within systems, and beginning to delve into the mechanisms through which systems reorganize. He also talks about systems exceeding their parameters, and suddenly reorganizing, and about the relationship between change and stability.

In his book Design for a Brain, he discusses in detail the nature of homeostatic control. He considers the phenomenon in terms of adaptive behavior: "A form of behavior is adaptive if it maintains the essential variables" (p. 58), and "adaptive behavior is equivalent to the behavior of a stable system, the region of the stability being the region of the phase space in which all the essential variables lie within their normal limits" (p. 64).

A variable is a condition within the system. The boundary of a system is defined by its parameters, which are outside of it (p. 71). A change of a parameter of a system which effects the system will cause the system to change: "A change in the value of an effective parameter changes the field"(p. 73).

"Because a change of parameter value changes the field, and because a system's stability depends on its field, a change of parameter-value will in general change a system's stability in some way. . . . A change of stability can only be due to a change of value of a parameter, and change of value of a parameter causes a change in stability" (Ashby, 1960, pp. 77-78).

When a parameter changes, the variables also change and are driven farther from their usual values, and the system must encompass these new values. In other words, if a system is called upon from outside to change, it will have to change the way it maintains its stability, the way it changes within its dynamic equilibrium and stays stable.

Ashby mentions four patterns of process in which variables change: 1. Full-function, which involves constant gradual change; 2. part-function, which involves finite intervals of gradual change alternating with finite intervals of constancy; 3. null-function, which involves no change at all; and 4. step function, which involves finite intervals of constancy separated by instantaneous jumps. Systems whose variables are driven far from equilibrium tend to show changes in step-function form (Ashby, 1960, p.93). This step function change happens at Prigogine's bifurcation point.

Ashby creates a new term "ultrastability" for a system that manages to "change the way it changes", to make the step-function jump, to recalibrate rather than disintegrate when driven from equilibrium.

Having investigated the nature of systems and descriptions of morphogenetic change and its stages, let us now look to the processes through which morphogenetic change comes about.

Second Cybernetics

Magorah Maruyama was among the first to address the processes by which open systems change and evolve, and the first to use the term "morphogenesis" in this connection. In his article "The Second Cybernetics: Deviation-Amplifying Mutual Causal Processes" (1963) he notes that cyberneticians have concentrated on the deviation-counteracting processes of negative feedback and ignored deviation-amplifying processes. Since both are feedback processes, both belong to cybernetics. He coins the term "second cybernetics" for deviation-amplifying processes, to distinguish it from "first cybernetics" or deviation-counteracting processes. He expands the term "morphogenesis" from its original meaning of ontogenetic development to include deviation-amplifying processes in general, and refers to "morphostasis" as its opposite (Maruyama, 1963, p. 164).

> Such systems of deviation-amplifying processes
> are ubiquitous: accumulation of capital in
> industry, evolution of living organisms, the rise
> of cultures of various types, interpersonal
> processes which produce mental illness,
> international conflicts, and the processes that
> are loosely termed as "vicious circles" and
> "compound interests"; in short, all processes of
> mutual causal relationships that amplify an
> insignificant or accidental initial kick, build up

deviation, and diverge from the initial condition.
(Maruyama, 1963, p. 164)

He considers the phenomenon of deviation-amplifying
processes to answer the "embarrassing question" of how
living systems contradict the second law of thermodynamics
by progressing to less and less probable states, and
outlines how these processes work through numerous examples.

A very clear example of this phenomenon is the growth
of a city from a homogeneous plain. Let us assume a flat
plain with very few distinguishing characteristics,
homogeneous with respect to usefulness for agriculture.
Along comes a farmer, who chooses a spot for any reason--
let's say that his wagon breaks down on that spot. His farm
then makes it likely that the next farmer will settle
nearby, and so on. As the city grows, it begins to
differentiate within itself--the establishment of one livery
stable will discourage the establishment of another on the
same street. The establishment of the city around this spot
then inhibits the likelihood of another city in the
immediate vicinity due to a finite level of resources. Thus
the next city is established some distance away. The plain
is now far from homogeneous, and will, in time, reach
maximum differentiation if these processes continue. It may
not reach it, if deviation-counteracting processes, such as
preservation of land by an ecological group, prevail (This
preservation of land, however, in view of a larger system,
is part of a deviation-amplifying process, which

differentiates natural land from developed land) (Maruyama, 1963, p. 166-167).

At the start of deviation-amplifying processes is an initial kick, the breaking of the wagon. It is not, however, the "cause" of the outcome in the sense of having generated it. It is not predictable from the initial kick what the outcome will be, since the outcome is the result of the accumulated effects of the feedback along the way. The same initial kick could have produced a different outcome, for instance, the farmer could have had an aversion to that spot and could have been careful to build on another one. The initial kick is also generally not traceable in reverse--it is not deducible from the outcome.

These observations regarding the initial kick produce a revision of the classical assumption of causality in physics--that similar causes produce similar results, and dissimilar causes produce dissimilar results. In this context, similar conditions may result in dissimilar results (Maruyama, 1963, p. 167). A high probability deviation may result in low probability result.

Maruyama thus adds the detailed investigation of deviation-amplifying processes and their function in morphogenetic change to our inquiry. His theory also involves a developmental aspect. After a system has become more differentiated as a result of deviation-amplifying processes, it comes to a point of dynamic equilibrium where

it ceases to change and become more ordered, and instead

maintains its organization. Maruyama notes this in terms of

cultures which seem very different from neighboring

cultures:

> Most likely such a culture had developed
> first by a deviation-amplifying mutual causal
> process, and has later attained its own
> equilibrium when the deviation- counteracting
> components have become predominant, and is
> currently maintaining its uniqueness in spite of
> the similarity of its geographical conditions to
> those of its neighbors. (Maruyama, 1963, p. 178)

This same concept appears in Bertalanffy:

"Increasingly, the organism becomes 'mechanized' in the

course of development; hence later regulations particularly

correspond to feedback mechanisms, homeostasis, goal-

directed behavior, etc." (Bertalanffy, 1968, p. 150).

A system regains its stability after a major

reorganization, and becomes a new, higher order, stable

system, maintaining a new dynamic equilibrium.

The next question is: Are there systems which are more

likely to reorganize than others, and what are the variables

within the system that make this more likely?

Hierarchy

An aspect of systems that reorganize is hierarchical

organization, which is defined by Herbert Simon, in "The

Organization of Complex Systems" (1973) as

> "a set of Chinese boxes of a particular kind. . .
> Opening any given box in the hierarchy discloses
> not just one new box within, but a whole small set

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of boxes. While the ordinary set of Chinese boxes is a sequence, or complete ordering, of the component boxes, a hierarchy is a partial ordering--specifically, a tree." (Simon, H., (1973) p. 5)

Each subset of the whole contains a complete unity, a complete set of subsets of its own. Simon goes on to note an interesting consequence of this organization. This principle is basically that the time necessary for the evolution of a system containing only simple components is much longer than that necessary for a system with independently organized, stable, complex components. (Simon, H., (1973) pp. 7-8)

He illustrates this principle with a parable of two watchmakers, both attempting to assemble a watch consisting of ten thousand parts, and both interrupted frequently by the telephone. One has organized his work into subassemblies, each of which is stable once assembled. The other has not divided the work, but is trying to assemble ten thousand interdependent parts separately. An interruption causes any parts that do not form a stable system to revert to disorder. It is obvious that the first watchmaker, if his subassemblies are able to be completed between phone calls, will finish, whereas the second one will not--unless he takes the phone off the hook and goes without lunch. (Simon, H., (1973) pp. 8-9)

It is clear from this that the independent capability of the components of a system is a determining factor in the

system's ability to form a new, more highly organized system. If all of the components must change their relationships at the same time, the system is much more unwieldy than if each component can change independently. If this is the case, the final reorganization will seem to be sudden, while in fact it is just the perceivable final piece in the puzzle which causes the whole pattern to appear.

The concept of hierarchy is also useful in illustrating the relationship between parts and wholes. At the level of any given system, there are recognizable parts, related through their organization into a unity. The organization of these parts, added to the collection, creates something qualitatively different from just a collection of parts. Each of those parts is in itself a system, which is more than the sum of its parts, and so on.

Science Summary

We have gathered some of the pieces of the puzzle of morphogenetic change from the world of scientific thought, pulling together many aspects of the process.

Maturana's work on autopoietic systems helps to define the nature of morphogenetic change by providing the terminology of structure and organization. He also establishes the all change is internally determined and

motivated, although the change may be triggered through outside influence.

From Prigogine, we gather that self-organizing systems are far from equilibrium, and therefore acutely sensitive to perturbations, which have the effect of producing internal fluctuations, which then escalate. Platt adds the fact that the change is preceded by systemwide dissonance. Maruyama illuminates the dissonance, or escalating fluctuations, and how it works. Fluctuations are increased through deviation-amplifying processes, snowballing from an untraceable initial kick to an unpredictable outcome. This outcome is a reorganization of the system, which happens in Ashby's step-function form after reaching Prigogine's "bifurcation point".

From Herbert Simon comes the notion of hierarchy, in which the components are differentiated into autonomous subsystems, which are systems themselves. This structure facilitates reorganization on a higher level.

The new system thus created, according to Platt, can be inherently new--self-generated, as well as developmentally determined. It encompasses more information more simply and inclusively, and its "newness" arises from a new "reading" of the old components and their relationships in the new context. This process moves a system toward Ashby's "ultrastability", a concept which transcends stability and change--the ability to remain stable through radical change.

Erich Jantsch, a system scientist and philosopher concerned with the applications of this new paradigm is an excellent source of synthesis of these ideas. His book The Self-Organizing Universe: Scientific and Human Implications of the Emerging Paradigm of Evolution collects this paradigm from the various scientific disciplines and carries it into its implications for life on this planet. He provides a justification for a general theory that spans different kinds and orders of systems:

> Dissipative self-organization is not restricted to the domain of what we normally call life. It is the phenomenon underlying life in many manifestations. . . We may now recognize molecular systems at a precellular stage which are capable of metabolism, self-reproduction, mutation and competition for evolutionary selection. Up to now, the same characteristics were thought to define life! At the same time, dissipative self-organization does not separate biological evolution from sociobiological, ecological and sociocultural evolution. . . certainly ecosystems, the world-wide Gaia system of the bioplus atmosphere, social systems, civilizations and cultures are no less dissipative self-organizing systems than are ideas, paradigms, the whole system of science, religions and the images we hold of ourselves and of our roles in the evolution of the universe. (Jantsch, 1980, p. 86)

Having gathered the rudiments of the contributions of the realm of science, it is time to turn to the study of human systems in particular.

Developmental Theory

Heinz Werner: The Orthogenetic Law

It would not be right to discuss morphogenetic change
in systems without looking into the area of developmental
theory, since morphogenetic change involves the development
of systems. Since this field is not new, and has evolved to
the point where there is a great deal of differentiation
among its components, it contains within it many conflicting
viewpoints. It is clear, however, from considering the
major points of controversy, that developmental theorists
are very much involved in the questions considered by this
paper. These major controversies are: 1. Whether the role
played by the organism in its own development is active or
passive; 2. Whether development is internally or externally
caused (nature/nurture); 3. Whether development is
continuous or discontinuous; 4. Whether it is qualitative or
quantitative (Hayes, 1985, pp.5-8).

It seems clear to me that the answer to all of these
questions is simply "yes"--all of these autonomous
subsystems go together to create the whole picture/field of
developmental theory. Development is all of these, depending
on which facet is being examined, and how one chooses to
define it. Some of these avenues of inquiry are more
productive for this study, however, and the most notable of
these is the work of Heinz Werner.

In " The Concept of Development" (Harris, Ed., 1957),
he formulates what he calls the "orthogenetic law":

> ...wherever development occurs, it proceeds from
> a state of relative globality and lack of
> differentiation to a state of increasing
> differentiation, articulation and hierarchic
> integration. (Werner, 1957, p. 126)

This law is illustrated by application to a specific
case, the development of perception:

> The formation of percepts seems, in general,
> to go through an orderly sequence of stages.
> Perception is first global; whole qualities are
> dominant. The next stage might be called analytic;
> perception is selectively directed toward parts.
> The final stage might be called synthetic; parts
> become integrated with respect to the whole.
> (Werner, 1957, p. 129)

That is, the process of development involves the

evolution of a system to more highly organized (integrated)

structure and differentiation. In this sense, any change

which involves increasing organization and differentiation

may be considered to be "developmental" i.e., a system

develops as it manifests its ability to be self-organizing.

Werner goes on to distinguish two kinds of

developmental processes:

> ..development cannot be comprehended without the
> polar conceptualization of continuity and
> discontinuity. . . Underlying the increase in
> differentiation and integration [defined as
> development] are the forms and processes which
> undergo two main kinds of changes: (a)
> quantitative changes which are either gradual or
> abrupt, and (b) qualitative changes which, by
> their nature, are discontinuous.   (Werner, 1957,
> p. 137)

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Werner discusses in some detail the terminology to describe these four variables: gradual, discontinuous, qualitative and quantitative (Werner, 1957, p. 133).

He suggests using the term "abruptness" to describe quantitative discontinuity, and "discontinuity" to describe qualitative discontinuity.

In quantitative change, abruptness is a function 1. of the measure of gradual or abrupt increase/decrease of some quality, substance, or structure already existing as part of the system and 2. "gappiness", or lack of intermediate stages, of quantity. Quantitative change is reversible. A gradual change may appear sudden because of a critical mass of smaller, gradual changes becomes perceptible, as in the process of gaining weight. It is, however, reversible and quantitative.

Qualitative change, on the other hand, is not reversible, and centers on what he calls "emergence": Something new emerges which is irreducible to anything which came before--is irreversible, and "gappy", or discontinuous, having no intermediate stages (Werner, 1957, p. 133). It is this qualitative change that qualifies for this study.

Discontinuous qualitative change may appear to be gradual because the increments of change are very small and are perceived to be continuous. It is nevertheless a qualitative discontinuous change because it involves an emergence which is irreversible. What is gradual is the

increase of frequency or magnitude of the emergent difference. An example of this is the process of learning to walk (Werner, 1957, p. 143).

Development does not proceed evenly throughout the existence of a system. Quantitative and qualitative changes seem to alternate. In the example of the embryo, development proceeds unevenly, in fits of growth separated by periods of differentiation. Werner says "One may note the possibility of discriminating between 'growth' as a process of accumulation [quantitative] versus 'development' defined by differentiation [qualitative] (Werner, 1957, p. 136). By this formulation, the term development more closely approximates morphogenetic change.

Werner also considers the question of whether an individual is developmentally diverse, that is, able to function on several developmental levels. It is obvious that, having reached a developmental level, the individual does not "fix" at that level, or the next level would never be attained. However, what is not immediately obvious is the necessity for an earlier level to be available in order to progress to a higher one.

> . . .an organism, having attained highly
> stabilized structures and operations may or may
> not progress further, but if it does, this will be
> accomplished through partial return to a
> genetically earlier, less stable level. One has
> to regress in order to progress. (Werner, 1957, p.
> 139)

If earlier developmental levels of functioning are considered to be subsets or components of the system, this principle then refers to the autonomy and flexibility of components, which is one factor determining whether the system evolves or regresses. Earlier levels, retained as subsets, or possible modes of behavior, must still be able to function independently. In the analogy of learning to walk, even though the muscles have mastered a new organization, the separate muscles must also be able to function independently to accomplish other tasks, and to continue to be able to crawl.

It also relates to the principle of subset-superset relations discussed above (pp. 48-49). The higher order comes about through a new interpretation of the subsystems/components, and their relationships. The old (i level) organization/ relationships must be released before a new system can appear. Crawling must be abandoned as the organization, and the same muscle groups (subsets) must learn to function in a new organization. This "dropping a level" into earlier, or component, sets allows a reorganization in the light of a higher ordering principle.

The more developmentally advanced individual will have a larger number of levels of development, or subsets, available, and thus have more of what we might call creativity.

. . .in creative reorganization, psychological
regression involves two kinds of operations: one

is the de-differentiation (dissolution) of
existing schematized or automatized behavior
patterns; the other consists in the activation of
primitive levels of behavior from which
undifferentiated (little-formulated) phenomena
emerge. (Werner, 1957, p. 139)

Further development requires this kind of flexibility.

A system which persists in a fixed response at a given

developmental level cannot evolve, or respond to the

occasion to develop presented by the environment and by

internal fluctuations.

Crisis and Adult Development

An interesting addition to the question of development

is found in an article from the newer literature on crisis

theory. In " Toward a Developmental View of Adult Crisis: A

Re-examination of Crisis Theory" (1980), Greer recaps

Caplan's original crisis theory.

> Basically. . . an individual is in crisis when
> faced with a threat to basic psycho-social
> supplies where his or her normal and available
> adaptive resources are exceeded for a time. The
> individual is at least temporarily unable to
> modify the resultant stress or tension through his
> or her typical coping or problem solving
> strategies. The disequilibrium of crisis affords
> the person a unique opportunity from which,
> depending upon certain exogenous and endogenous
> factors, one may emerge psychologically healthier
> than prior to the crisis through extension of
> one's repertoire of effective problem-solving
> skills. (Greer, 1980, p. 17)

Clearly this is a restatement of the phenomenon of

morphogenetic change in terms of individual dynamics,

allowing the possibility that a crisis is a part of the

process of self-transcendence. Greer emphasizes the catalytic potential of crisis for ontogenetic development:

> The term development is not a synonym for growth or adaptation, but is used here in the epigenetic sense which is best summarized by the developmentalist Richard Leitner (1976):
>> One cannot reduce a qualitative change, something new, to a precursory (an earlier or lower level) form. Epigenesis denotes that at each higher level of complexity there emerges a new characteristic, one that simply was not present at the lower organizational level and thus whose presence is what establishes a new level as just that--a stage of organization qualitatively different from the preceding one.
>
> (Greer, 1980, p. 31)

Thus Greer defines development as happening through morphogenetic change. Given that crisis can produce this kind of change, and development consists of this kind of change, it follows that crisis can be instrumental in development. Greer takes this one step further, and asserts that crisis is an integral part of adult development (Greer, 1980, p. 18).

He discusses the lack of recognition of this fact as a product of limitations in the original form of crisis theory: It was based on the steady state emotional equilibrium model in which crisis was seen as a disruption; and the fact that Caplan's thinking was limited by the absence of a coherent theory of adult development. He refers to developmental crises in childhood and accidental crises in adulthood. Another obstacle was the base in psychodynamic thinking which concentrates on pathology and

failure of coping mechanisms, rather than ultimately

beneficial larger processes (Greer, 1980, p. 19-21).

Greer cites as evidence for the developmental function

of crisis Elizabeth Kubler-Ross's stages of dying, which are

not just fluctuations of coping strategies, but involve

radical systemwide transformations (Greer, 1980, p. 22).

Widowhood also involves transformations, and results in

changes of self-perception and role expectations parallel to

the transition from adolescent to adult (Greer, 1980, p.

22-23). In life span literature, Erikson's developmental

stages involve psychosocial crises to be resolved by system

transformation. Greer also cites Gould and dialectical view

of Lawler and Riegel, in which crisis is the basis for

development. "Crisis is the sine qua non for development"

(Greer, 1980, p. 25).

A period of crisis is a critical period of increased

vulnerability and heightened potential. Not all critical

periods involve crises, but all crises are critical periods,

and can further adult development (Greer, 1980, p. 25). The

question is whether adult development would take place

without crisis, but since it is unlikely that a lifespan

would take place without crisis, it is a moot point which

resolves in the fact that crisis and development are

inextricably bound.

To summarize briefly, Werner reiterates some of the

material gathered from science, but in different form. He

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stresses the aspect of differentiation and hierarchical integration as the outcome of morphogenetic change, and reaffirms the aspect of emergence of something new. He translates Platt's sub/supersystem relationship in terms of reversion to an earlier, more fundamental level of functioning and use of this level reinterpreted in the formation of the new order.

Greer adds the word "crisis" to Platt's systemwide dissonance, and gives it the position of a necessary element in adult development, thereby giving morphogenetic change a position in adult development, as well.

Creativity

Having mentioned creativity briefly in the section on development, it is appropriate to consider that "the creative leap" is another way of referring to morphogenetic change. To cover all of the literature on creativity is beyond the scope of this paper. However, one source relates directly to this study.

Arthur Koestler's book on creativity, Act of Creation, investigates the process of creativity in great detail. He sees the sudden shift in morphogenetic change as a sudden combining of two matrices or frames of reference, through a crucial link which joins the two. This link joins two incompatible elements, as illustrated by the punchline of

most jokes, which combine two incongruous frames of reference.

This ability to link exclusive and incompatible frames of reference is the essence of creativity. "Creativity can be understood as a skill in linking the habitually unlinked so that incongruent elements create a novel relationship." (Schwartzman, 1982, p. 122).

The exercise of creativity and the creation of this novel relationship is the essence of morphogenetic change. In morphogenetic change the relationships between the components break down, and the components are recombined in a way which is new and which produces something qualitatively different: i.e. it is a fundamentally creative process.

Therapies

The next stage in the investigation of the literature involves a journey into the world of therapy. Therapists, as "change agents" are in the business of facilitating change, and so are more concerned with the actual experiences through which change happens. In their writings, we can find not only theoretical formulations on the nature of change, but also more specific descriptions of how change occurs.

We will consider three basic modes of therapy: Gestalt, which deals primarily with individuals; Psychosynthesis,

which deals primarily with individuals in practice, but which provides a general theory which is also applicable to groupings; and Family Therapy, which deals primarily with groups. The first two are chosen for their unique vocabularies and points of view, which take us out of the vocabulary of General System Theory by describing morphogenetic change in very different words. Family therapy is chosen because of the fact that family therapy theorists have continued to develop the theory of systems into the realm of human systems and therapy.

Individual Therapy

Gestalt Therapy

Gestalt therapy, as practiced by Fritz Perls and his followers, provides yet another vocabulary and way of looking at system change.

Gestalt psychology "had to shift the concern of psychiatry from the fetish of the unknown, from the adoration of the 'unconscious' to the problems and phenomenology of awareness" (Perls, et al., 1951, p. vii). The focus on awareness is key to Gestalt theory. "Awareness is characterized by contact, by sensing, by excitement, and by gestalt formation" (Perls, et al., 1951, p. viii). In system terminology, this means the relationship between an open system and its environment and its response to that relationship: contact, the meeting of the system and its

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environment; sensing, the receiving of the system of information from the environment; excitement, the response to the information by the system; and gestalt formation, the ordering of that information within the system.

Contact, the authors say, occurs without awareness, but awareness cannot occur without contact (Perls, et al., 1951, p.viii). This is reminiscent of Bateson's "difference that makes a difference"(1972, p.315)--there can be no awareness without a change of relationship with the environment.

Sensing is the mode through which the awareness comes-- the effect of the contact on the sensors of the system. Sensing gives more news of the kind of difference: distant, close, or internal (Perls, et al., 1951, p. ix).

Excitement seems to mean a response to the contact with environment--any effect which is noticeable, which takes the system from the state of equilibrium of pre-contact, to a different state as a result of contact.

Gestalt formation takes us into the core of the theory. As organisms we are gestalt-makers. To form a gestalt is to create a pattern, to link separate elements into a coherent whole. We see three separate dots and immediately create a triangle. In other terms, we make meaning and order. Not only do we organize and create ordered wholes, but we also, in the process, distinguish them from the context in which they appear. This is called "figure/ground formation". We differentiate between the figure and the ground in which it

appears, and at the same time, the ground, or context, determines how we perceive the figure. A color changes its shade depending on the background color. Our existence as gestalt-making organisms consists of an endless play of formation and dissolution of gestalten. This process can be interrupted by an inability to complete a gestalt. This experience can be best demonstrated by ending a piece of music before the natural resolution inherent in the piece. The interruption of this process is the definition of an unhealthy organism in Gestalt psychology.

> Only the completed Gestalt can be organized as an automatically functioning unit (reflex) in the total organism. Any incomplete Gestalt represents an "unfinished situation" that clamors for attention and interferes with the formation of a novel vital Gestalt. (Perls, et al., 1951. p. ix)

Our healthy functioning requires that we not be attached to gestalten that we have formed, but rather requires that there be free flow of figure/ground formation. We cannot be stuck in old perceptions when new information appears, or we will not be able to respond appropriately. A healthy functioning human being, in contacting its environment, continually responds to this contact by forming new relationships to the environment and to itself, continually creating new ways of responding and letting go of old ones--i.e. taking information into the system and adapting to it while maintaining its integrity and identity as a system.

A disturbance in figure/ground formation results in rigidity, the inability to maintain the free flow of adaptation and absorption of information, resulting in, for example, compulsive behavior, boredom, confusion and continued use of ineffective coping mechanisms. This happens when the organism cannot complete the gestalt--is called upon to absorb an unmanageable difference, to evolve beyond its capabilities at the time. It cannot maintain its integrity and identity as a system and at the same time take in the new information. Joslyn goes so far as to say that "all human problems are disturbances of figure ground which would naturally unfold, but are stopped" (Joslyn, 1975, p.242). Gestalt psychology explains this stopping in terms of a somewhat Freudian concept of past trauma, i.e. looking into the past for a situation where the development was stopped, arresting the organism at a certain unfinished gestalt. Gestalt therapy, on the other hand, is very much oriented toward working with figure/ground formation in the present and scornful of looking to the past for answers, on the grounds that this is easily distorted into an excuse for the stoppage. In either case, the present reality is the same--the system is unable to encompass new information, and persists in an ineffective pattern of response.

The situation, then, is an organism/system that is stuck in a rigid pattern of response. This inability to complete a gestalt and move on creates conflict, because we

are by nature gestalt-completers: because the response is
not able to finish the interaction, is not getting the
outcome that we expect/desire or require. Our rigid
response is split off from our immediate contact with the
environment, we are no longer in the flow of gestalt
formation. What is called for is the process of
morphogenetic change--letting go of the old organization,
and moving to a qualitatively different level of
organization and integration.

Perls sees the presence of conflict as meaning that the
organism needs to integrate, to find a "self-creative
solution" (Perls, 1975c, p. 43). In system terms, the
individual/system needs to find a new inclusive mode of
functioning while maintaining its integrity. At this point
the system is divided within itself, trying to do two things
at once, experiencing conflict, and trying to resolve the
conflict in a way that may or may not include an attempt to
integrate. It may be trying to deny the new information,
or, on the other side, trying to deny the old information.
Perls notes that conflicts have one basic pattern: "the
patient identifies himself with many of his ideas, emotions
and actions, but he says violently 'NO' to others.
Integration requires identification with all vital factors"
(Perls, 1975b p. 55).

It is this identification with one side that
perpetuates the conflict. The new information has been

added into the system and it is not possible to return to the state before this occurred. In order for the individual/system to return to an undisturbed figure/ground formation process (dynamic equilibrium), the integration must occur, since until then a rigid pattern is necessary to maintain the system's functioning as it was before the new information came in. Denying one side of the conflict is the way in which the rigid pattern is maintained, sometimes at great expense to the other areas of functioning of the system. The harder the system tries to hold on to one side of the conflict, the more need there is to integrate the other side. The conflict escalates, until the system is forced to acknowledge both sides and is thereby forced over the edge into a new way of functioning: either to a more integrated inclusive level (a new closed gestalt) or in the opposite direction, reverting to a lower level of functioning.

Gestalt therapy stresses over and over again the need to identify with both (all) sides. Successfully accomplishing this creates a new consciousness, a new awareness of the problem. Instead of being caught in "this, not that", one becomes aware of "this and that" both as parts of oneself. This creates the potential for integration. One article by Stella Resnick, speaks of this process in terms of the dynamic between "topdog" and

"underdog" (Gestalt terminology for two conflicting parts,
one in dominant, the other dominated):

> The underdog makes the topdog. Without the victim
> to shove around, there would be no dictators. In
> fact, as the person takes responsibility for his
> or her experience, watching without identifying
> with either voice, a reconciliation of these
> opposites takes place. Duality and polarity give
> way to unity and integration. Another voice
> begins to emerge, the voice of caring and wisdom,
> which functions in a directing mode, taking
> account of the essential integrity of the
> organism. (Resnick, 1975, pp. 235-236)

Perls speaks of the same process in more abstract
terms: "Questions are created out of the suspicion of the
answer. A question that is intensified collapses into its
own answer (Perls, 1975a, p. 72). That is, the
intensification-heightened awareness--makes it impossible
for the gestalt to remain unfinished. "Collapses into its
own answer" alludes to another important point: that the
answer is within the question. The answer arises from the
new gestalt which is formed from the merging of the
previously opposed sides of the conflict. It is inherent in
the conflict itself, not supplied from outside.

In Gestalt terms, after this process has happened and
the organism has moved to a new level of integration, the
process of figure/ground formation begins again on this new
level, and the organism is again constantly forming new and
letting go of old gestalten.

In summary, Gestalt psychology provides a different
vocabulary for morphogenetic change, speaking in terms of

gestalt formation, rigidity, and closure. It provides
insight into the internal dynamics of morphogenetic change
in the psyche. Gestalt theory restates the basic idea that
the new order is inherent in the old order, but only when
seen in the new light of the supersystem. It also
contributes a new aspect to the theory of morphogenetic
change: the framing of the concept of a conflict between
opposites, which goes from an opposition: this, not that; to
a unity: this and that. It is the union of the opposing
sides that both creates and is the new order.

Psychosynthesis

Another therapy which is very much concerned with
morphogenetic change, and which in fact uses the concept as
its organizing principle, is Psychosynthesis, a school of
psychological thought which derives its terminology from a
combination of Freudian analysis and eastern spiritual
tradition. For a description of the process of
morphogenetic change, we can look to Roberto Assagioli,
founder of Psychosynthesis.

Assagioli coined the term Psychosynthesis in his
doctoral thesis on Psychoanalysis in 1910, to emphasize what
he saw as the reductionistic aspect of psychoanalysis as he
began to formulate his idea of a more holistic psychology.

In an article published in 1965(b), Assagioli compares

Psychoanalysis and Psychosynthesis to two parts of the
chemical process undergone by proteins in the human body:

> The complex molecules of the proteins contained in
> food are subdivided into the simpler molecules of
> peptones by the biochemical analytical processes
> of digestion. Through a process of synthesis,
> these are combined to form larger molecules
> constituting the specific proteins of our own
> organism. (Assagioli, 1965b, p. 1)

Psychoanalysis takes apart, analyzes, and Psychosynthesis
recombines. Psychoanalysis is the first stage of the
process, and many aspects of Psychoanalysis were
incorporated into the body of theory of Psychosynthesis, but
always in the context of the synthesis of the "digested
elements" in a more integrated personality. It is this
synthesis, this integration, that is of interest here. In
order to describe it in psychosynthesis terminology, some
more background in Psychosynthesis will be useful.

In the same article, Assagioli refers to "psychological
indigestion" and the formation of "psychological abscesses
and tumors" in the unconscious (Assagioli, 1965b, p.1).
Psychoanalysis is the treatment of these maladies, dealing
primarily with "The lower aspects of our nature, all the
impulses, passions and illusions, plus their manifold
combinations and deviations, which dwell and seethe in our
unconscious and which delude, limit and enslave us"
(Assagioli, 1965b, p. 2).

Although the impassioned nature of this eloquent
condemnation of an aspect of human nature betrays him as a

product of the Victorian era, he tempers this fear of the
darker side when he says: "There can be no real health, no
inner harmony and freedom, and no unimpaired efficiency
without first a sincere, courageous, and humble
acknowledgement of all the lower aspects of our nature"
(Assagioli, 1965b, p. 2).

Assagioli goes on to say that what Freud has overlooked
is the other side of humankind, the "higher" nature, wherein
reside impulses and energies toward love and compassion,
altruism, aesthetic and religious experience and
inspiration—the realm of larger vision and understanding.
He postulates what he calls the "higher unconscious"
(Assagioli, 1965b, pp. 17-19) or superconscious, which is no
more included in the individual's field of consciousness
than is Freud's subconscious, which Assagioli renames the
"lower unconscious". Both, however, make their presence
known through their effects on consciousness, and both can
be a source of conflict and an indication of a process of
growth and evolution.

As the lower unconscious is the field of analysis, so
the superconscious is the field of synthesis. In the
superconscious is the potential for integration. Contents
from the higher unconscious coming into consciousness are a
pull toward unity, an experience of and evidence for, a
universal process of synthesis in the psyche.

In discussing this universal process in Act of Will, he

takes this process beyond the psyche, and sees it as a

tendency toward unity, order and integration on all levels,

from the chemical and biological to the whole of humanity

and beyond. He assumes a unifying principle, and says: "We

can only call it life" (Assagioli, 1974, p. 32). In his own

inimitable style, Assagioli expresses this principle:

> From a still wider and more comprehensive point of
> view, universal life itself appears to us as a
> struggle between multiplicity and unity--a labor
> and an aspiration toward union. We seem to sense
> that--whether we conceive it as a divine being or
> as cosmic energy--the Spirit working upon and
> within all creation is shaping it into order,
> harmony, and beauty, uniting all beings (some
> willing but the majority as yet blind and
> rebellious) with each other through links of love,
> achieving--slowly and silently, but powerfully and
> irresistibly--the Supreme Synthesis. (Assagioli,
> 1974, p.34)

The process of synthesis is the cornerstone of Psycho-

synthesis. Assagioli sees it as the context of

psychotherapy in which the individual is experiencing the

growing pains of an inevitable and inherent process of

evolution to greater integration. This evolution

encompasses both inherent organic developmental process, and

evolution above and beyond this in the emotional, mental and

spiritual realms, that is, including the potential for

"newness" and creativity. He says," If we consider this

process from 'within', we find that we can have a conscious,

existential experience of it as intelligent energy directed

toward a definite aim, having a purpose" (Assagioli, 1974,

p.33). This purpose is twofold: 1. to integrate the personality into an integrated whole around a unifying center, the "self" or the "I" (personal psychosynthesis), and 2. to integrate the being around the unifying center of the "Higher Self", which is the bridge between the individual and the infinite (transpersonal psychosynthesis). The overall goal of the process of Psychosynthesis is seen as the organization of the individual into an integrated whole around the unifying center of the personality, directed by the unifying center of the "Higher Self".

Since this process is inherent in the individual, it is the task of the therapist to assist it, not to force or create it. The conflict which the person seeks to resolve indicates opposing tendencies in the psyche which are unifying into a larger reality, a new vision in which they are not opposed, but in which they can coexist on a different level. Synthesis involves this unification of opposites.

In his article "Balancing and Synthesis of Opposites", (1975) Assagioli addresses the process of synthesis in some detail. He first points to the ubiquitous nature of polarities.

> Psychological life can be regarded as a continual
> polarization and tension between differing
> tendencies and functions, and as a continual
> effort, conscious or not, to establish
> equilibrium. (Assagioli, 1975, p. 5)

The combination of this effort to maintain equilibrium, and the inherent tendency toward evolution, integration and synthesis, creates periods in life which are characterized by the conflict between these two tendencies. The individual finds him/herself in a painful transition phase, in which the old equilibrium no longer serves, and the new synthesis has not yet been reached.

> This is a period of transition; a passing out of the old condition, without having yet firmly reached the new, an intermediate stage in which. . .one is like a caterpillar undergoing the process of transformation into the winged butterfly. The insect must pass through the stage of the chrysalis, a condition of disintegration and helplessness.   (Assagioli, 1965a, p. 50)

Assagioli sees the difficulty of this stage as due not so much to the internal growth, but to the circumstances in which it must occur:

> But the individual generally does not have the protection of a cocoon in which to undergo the process of transformation in seclusion and peace. He must. . . remain where he is in life and continue to perform his family professional and social duties as well as he can, as though nothing had happened or was still going on. . . .
> It is not surprising then that this difficult and complicated task, this "double life", is likely to produce a variety of psychological troubles. (1965a, p. 50)

Assagioli outlines four ways of resolving tension between polarized elements.[6] The fourth is the method of

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[6]   for the curious:
The first is fusion, which neutralizes the charge of both sides, as in electrical energy. The second he refers to as "creation of a new being, of a new reality" as in sexual polarity. The third is the adjustment of the poles, as in compromise or the "happy medium" or the management of the

synthesis, which he says is "brought about by a higher
element or principle which transforms, sublimates, and
reabsorbs the two poles into a higher reality", which is
"endowed with qualities differing from those of either of
them" (Assagioli, 1975, p.6).

On the level of personality or unconscious elements,
the synthesis is the discovery of a state of being where
previously opposed and mutually exclusive desires or
tendencies coexist. On the level of the conflict between
the individual's need to maintain equilibrium, and the need
to change, the synthesis is a transformation of the old
equilibrium to a higher level. The new integration does
not lose the essence of the old, but changes it at the same
time--the co-existence of changing and staying the same.
The new direction, the new state of being, is contained in
essence in the old. The nature of the conflict indicates
the direction of growth.

The process of synthesis in illustrated by a simple
equilateral triangle pointing upward. The two angles at
either end of the bottom side represent the two opposing
tendencies, and the third, top, angle represents the product
of synthesis. The bottom line represents the polarization
and conflict between the two ends.   A position of
compromise is sometimes placed in the middle of the bottom
line:
_____

energies in alternation.

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For example, an intrapsychic conflict might be between discipline and freedom. These two are placed at the bottom corners. The compromise might be to alternate periods of discipline and periods of freedom, intense work and unstructured vacation. The third position, however, unified the dichotomy, and the person realizes the ultimate freedom that exists within a structure of discipline, and the discipline inherent in freedom.

In summary, Psychosynthesis also recognizes the inherent and universal tendency toward self-transcendence, morphogenesis. Assagioli provides a simple map for the process in the principle of synthesis, illustrated by the triangle. The process of synthesis involves the transformation of apparently opposed elements into a new integrated whole. Psychosynthesis sees this process as taking place around a unifying center--that is, a state of being outside of the polarity, which contains or which is the potential for their coexistence. The essential aspect of this center is consciousness.

A theme of both Gestalt and Psychosynthesis is the internally generated dissonance which precedes change-in Gestalt it arises through the internal imperative to finish the gestalt. In Psychosynthesis it arises through an internal imperative to encounter new information in order to evolve to higher levels of integration. In both cases the dissonance is part of an inherent process of development or evolution.

On the other hand, Greer's crisis theory posits the "cause" of change in the external environment. The question now arises explicitly--what is the relationship between internally and externally "caused" change? As Maturana points out, there is no such thing as an external cause, there are only external occasions which trigger a system's attempts to adapt through its own internal fluctuations. In Prigogine's theory, a system far from equilibrium is very sensitive to outside influences, but what causes the change is the resulting internal fluctuations. Paul Dell, discussed below as a family therapy theorist, summarizes the relationship thus:

> These are dissipative structures which draw their energy for growth from outside the system, but attain the conditions necessary for discontinuous quantum leaps to new organization from the fluctuations within the system. (Dell & Goolishian, 1979, p. 13)

Crises provide energy for change, as do various other external conditions. An external crisis may trigger an internal change. The trigger may also be internal, but

since systems do not exist in isolation, energy is always being drawn from the environment, and it is impossible to separate what is entirely internal and what is external.

Family Therapy

The last realm of inquiry in the field of therapy is that of Family Therapy. The field of Family Therapy is diverse and ever-changing, and Family Therapy theorists are dealing directly with system concerns, and, in more recent years, with systemic change.

The field of family therapy as it exists today can be seen as a direct result of the appearance of cybernetics and general system theory. The very idea of seeing an entire family in therapy made no sense from a psychodynamic viewpoint, and for those with an inkling of something else, was too unwieldy, too complex, for a therapist to manage without a theoretical framework with which to approach it. When such a framework appeared, in the form of systemic epistemology, so did family therapists. Those family therapists who based their work entirely on systemic concepts began to move away from psychodynamic concepts and linear thinking, and toward a systemic and circular mode.

Family therapists came out of a field rooted in the psychodynamic model and its accompanying beliefs. Therapy was organized around the concept of "pathology" and the idea that the therapist's job was to "change" the patient, and as

such was the opponent of the patient's "resistance". It was natural for the family therapists to gravitate toward the aspect of homeostasis as an explanation for their difficulties in making their families "change". The concept of homeostasis, seen from this point of view, becomes a statement of the "purpose" and "resistance" of a system, an intention to stay the same.

The difficulties that arose from this were a result not of focusing on homeostasis as a phenomenon, but of focusing on it out of context, and of putting it in the position of something to be overcome, creating an oppositional duality out of a simple aspect of existence. Although the concept was useful, and led to some extremely creative interventions, after a few years some family therapists began to question it.

In 1970, Speer published the article "Family Systems: Morphostasis and Morphogenesis, Or 'Is Homeostasis Enough'", in which he points out that it is ironic to base an approach to change in a theory of non-change. He points out the necessity of investigating the process by which systems change, since in fact they do, and their changing is the therapist's business.

Homeostatic thinking continued to be the primary mode, however, largely because of the difficulty of the scientifically conditioned mind to truly comprehend the simultaneous and circular nature of systems, and the lack of

a theoretician able to put together a coherent alternative with a base in practice. Gradually over time, and particularly recently, many brilliant family therapists have been thinking their way out of the old frame of reference into the new one. There has even recently been a new attempt to unify the two (Dell, "In Defense of 'Lineal Causality'" (1987).

How, through the eyes of family therapy theorists, do systems change? In answering this question, we will turn to some of the theoreticians of the field. Rabkin and Hoffman provide us with two descriptions of the process. Watzlawick addresses kinds of change, creating a vocabulary for distinguishing between morphogenetic and homeostatic changes, and adding some thoughts on polarities. Dell posits a new law of evolving systems, Keeney contradicts it, and Keeney and Ross resolve the contradiction through a discussion of polarities, change, and stability.

Saltology

Richard Rabkin (1976), mentioned above as having coined the term saltology for the phenomenon of morphogenetic change, outlines the process in detail. Following his premise that system change is hard to talk about because of our language, he begins his article with a view of the phenomenon of paradox.

Paradox results from trying to express an occurrence
for which there is no linguistic base: the transformation of
systems (Rabkin, 1976, p. 294). He considers in particular
system transformations which happen all the time in normal
life and in the process of development, and which are
purposefully attempted. He suggests the term "achievement"
for "those occurrences that are desirable to understand as
purposive (that we can set out to make happen) but which we
cannot describe explicitly in the form of an injunction"
(Rabkin, 1976, p. 295). He lists some of these
achievements: sleep, humor, play, falling in love, insight,
creative acts, mystical states of consciousness, changes in
relationships, and the process of healing in psychotherapy;
events which are spontaneous in nature but which are
deliberately achieved. [7]

These achievements have three common attributes: they
are sudden and complete, they seem to be triggered, and they
do not take time. In focusing on achievements which are

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[7] "It takes only a glance to see a few of the myriad
varieties of willing that cannot be willed that enslave us;
we will to sleep, will to read fast, will to have
simultaneous orgasm, will to be creative and spontaneous,
will to enjoy our old age, and urgently will to will. I can
will knowledge, but not wisdom; going to bed, but not
sleeping; eating, but not hunger; self-assertion, but not
courage; lust, but not love; congratulations, but not
admiration; religiosity, but not faith; reading, but not
understanding." (Farber, 1975, p. 7)

We can will the form, but the essence is a
qualitatively
different, and cannot be manipulated within the same realm.

intentional rather than spontaneous, Rabkin sees a parallel
between the "formulated stages in the process of creative
change" (Rabkin, 1976, p. 296) and the process of successful
"achievements". These stages are:

1. Preparation. "In the preparation stage, regardless
of the time scale, the elements of a system are examined and
manipulated one by one in a mechanical way. . .In this stage
the material gets into one's bones. Everything goes into
the hopper" (Rabkin, 1976, p. 296). In this stage the
elements are differentiated and the customary methods for
changing or solving problems are tried.

2. "Thrustration". This is the stage when all of the
customary techniques have been tried and nothing has worked.
The situation is blocked, and the stress increases.
Behavior becomes random and disorganized.

3. Incubation. This stage is a kind of giving up.
Nothing works, so there is nowhere to go from here. We
"sleep on it", or in more serious situations, resign
ourselves to despair.

4. Transformation. In this stage, "all the free
floating elements combine simultaneously into a harmonious
and surprisingly simple new pattern. It is accompanied by a
feeling of awe and beauty even if the change is not in a
recognized artistic field" (Rabkin, 1976, p. 297).

5. Consolidation. This is a period of integration of
the new order, in which the system establishes a new status

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quo and returns to equilibrium, but a new equilibrium. The
new pattern becomes automatic.

This sequence of stages of creativity is seen as
containing a general outline of the process of "trying" to
create system change, although it can be seen to operate
also in spontaneous system changes in a simpler form, for
example in going to sleep.

In this process, one assembles the usual accompaniments
of falling asleep: removing clothes, lying down, and
acquiring a somewhat changed consciousness with a different
sense of body and mind. Then the usual methods are tried:
closing eyes, finding customary position, etc., followed by
a waiting period of varying length. Suddenly, then, we are
asleep, and our bodies and psyches adjust to the new order
of things, bringing into operation mechanisms by which we
stay asleep. No matter how hard we tried as children, we
could not catch ourselves in the act of falling asleep since
we had to stay awake to do the catching. This is the same
thing that happens when we cannot get to sleep and expend
great effort in trying.

There is something in the act of trying which precludes
the change, and yet, in the case of intentional system
changes, the change cannot be accomplished without the phase
of trying.

It is this paradox which Rabkin attributes to the
deficiency in our language. It seems that what confuses us

is the suddenness of the leap--which is so sudden that it does not take time. In fact, sudden is not an appropriate word since it has a time orientation. The leap is instantaneous and complete, and nothing which existed on one side of it can be carried in the same form to the other.

"Trying" does not mean the same thing on the two sides. On one side it is effort with the possibility of failure, on the other side it is subsumed into the larger picture that effort-with-the-possibility-of-failure is part of getting there. However, the "there" that we get to is not the same place we had in mind, because it is not possible to conceive of it until we are there. Being asleep is not something we can experience, even in memory, unless we are asleep.

Paul Dell refers to this paradox in terms of western scientific and Hopi world views in his article "The Hopi Family Therapist and the Aristotelian Parents" (1980). The "aristotelian parents'" world view sees a long period of no change as discouraging, as evidence that the same state is likely to continue. The Hopi world view is the opposite, the longer the no-change state has persisted, the more hopeful, as trying is part of getting there, and accumulates motion toward change (Dell, 1980).

Rabkin's emphasis is on voluntary leaps, both spontaneous and prepared, both easy and difficult. Lynn Hoffman in Foundations of Family Therapy (1981), focuses on leaps which are not consciously sought after, but which

happen often in systems when either the external or the internal environment changes, requiring the system to reorganize in order to survive. These circumstances may be either developmental, as in the onset of puberty, or a family adjusting to a new baby; or accidental, as in adjusting to a loss or other change of circumstance. Her description of the process of system change is very similar to Rabkin's, but emphasizes stages 2, 3, and 4:

> The natural history of a leap or transformation is usually as follows. First, the patterns that have kept the system in a steady state relative to its environment begin to work badly. New conditions arise for which these patterns were not designed. Ad hoc solutions are tried and sometimes work, but usually have to be abandoned. Irritation grows over small but persisting difficulties. The accumulation of dissonance eventually forces the entire system over an edge, into a state of crisis, as the homeostatic tendency brings on ever-intensifying corrective sweeps that get out of control. The end point of what cybernetic engineers call a "runaway" is either that the system breaks down, creates a new way to monitor the same homeostasis, or else may spontaneously take a leap to an integration that will deal better with the changed field. (Hoffman, 1981, p. 56)

Second-order change

Watzlawick, Weakland and Fisch, in their book Change: Principles of Problem Formation and Problem Resolution, (1974), focus on the change itself--what is the difference between morphogenetic change and homeostatic, or system maintaining change? They present a very clear and concise distinction between two types of change, which they call

first and second order change. This terminology is a
redefinition of deviation-amplifying and -counteracting, or
system maintaining and system transforming processes.
Second order change restates the essence of Rabkin's
"achievements", and of morphogenetic change. The difference
lies in the relationship between polarized components.

First-order change is a change among elements on the
same level. The analogy for this is the dreamer having a
nightmare. Within the nightmare there are certain available
actions: run, fight, yell for help, fly, etc. One can
respond in one way and then change the response. The frame
of the nightmare, however, continues whatever action you
choose within this frame of reference.

Within this frame of reference, the dreamer is dealing
with the polarity "die or not die", "fear or not fear", or
some such ("A" or "not-A"), depending on the character of
the dream. The dreamer tries to achieve one and avoid the
other. Every action is determined by a basic polarity
within the frame of reference.

First order change is change on this level--within the
same frame of reference. Attempted solutions produce "no
change", that is, they perpetuate the frame of reference,
keeping the dreamer in the dream. This is a system
maintaining process.

Second order change is achieved by waking up from the
nightmare to discover a completely different frame of

reference. It is a surprising qualitative shift to a higher level, in which "die" and "not-die" are both contained within the new frame of reference--"dream". Polarization on the lower level is no longer important. The two coexist within the category of dream. From the point of view of waking life, both "die" and "not die" are just a dream (both "A" and "not A"). From the point of view of dream consciousness, the dreamer can choose to wake up (neither "A" nor "not A"). In second order change, elements which were mutually exclusive co-exist in a larger frame of reference.

Second order change is a "change of change"; one kind of change happens within the dream, but it takes a different kind of change to get out of it. This is a system transforming process, and is accompanied by the coincidence of what seem to be opposites, but which, in the new frame of reference, are not opposed at all, which will be further discussed below.

All Feedback is Evolutionary

Paul Dell, a theoretician in the field of family therapy, and one of the most innovative and clear thinkers investigating system theory at this time, is one of the people most involved in thinking their way out of the old frame of reference. He has published two articles that are directly relevant to this investigation: "Beyond

Homeostasis: Toward a Concept of Coherence" and "Order

Through Fluctuation: An Evolutionary Epistemology for Human

Systems". His thinking has been much influenced by Maturana

and Prigogine.

In the article, 'Beyond Homeostasis" (1982) he counters

all dualistic, animistic, vitalistic or anthropomorphic

flavorings of homeostasis, including the idea of homeostasis

as a separable aspect of a system, a mechanism, a purpose of

a system, a means to an end, or a resistance. He follows

Maturana in defining homeostasis as simply coherence--a

concept to describe "the way a system is".

> Homeostasis is a metaphor or a model for
> describing the functioning of a system. [It] is
> not something concrete, but rather a concept about
> a way of behaving. It is a description, an
> explanatory fiction. As such, talk of homeostatic
> mechanisms is not only dualistic, it is a
> reification of a conceptual metaphor. (Dell,
> 1982, p. 25)

Any perception of a system as split, that is, as having

a homeostatic tendency as opposed to any other tendencies,

leads to a complicated dualism. If homeostatic function

regulates a system, what regulates the regulator, and so on.

After an infinite series of questions, the only answer is

something like "the system itself" (Dell, 1982, p. 25). The

question is not necessary. The system functions as it does

because of what it is, and for no other reason. It is not

capable of acting in any other way than according to what it

is--its structure and organization.

Even if this view of homeostasis were the generally
accepted view, it is still an error to emphasize the
processes of negative feedback and steady state equilibrium,
as has been the tendency in the field until recently.
Systems are not mainly characterized by the ability to stay
the same, and the tendency to consider only this aspect is a
distortion:

> founded on the Second Law of Thermodynamics, the
> bedrock of science, which states that all
> structure inevitably degrades toward an
> unstructured equilibrium point. In recent years,
> however, some theorists have begun to delineate an
> alternative point of view that suggests a new
> unifying principle for general system theory.
> Makridakis (1977), for example, has proposed the
> Second Law of Systems which is the exact opposite
> of the Second Law of Thermodynamics. In essence,
> the Second Law of Systems contends that 'things
> tend to become more and more orderly if they are
> left to themselves' p.1. (Dell, 1982, p. 11)

Dell points out that, in fact, any emphasis on negative
feedback and the concept of staying the same is erroneous.
If a system is putting more and more energy into staying the
same in spite of the need to change, it will have less and
less flexibility. A breaking point will occur and the
system will have to change. The more tightly a system holds
to a variable, the more likely it is to reach maximum
disequilibrium. The more stable it tries to be, the less
stability it is likely to end up with. It may, however,
gain versatility--the ability to evolve to a higher order
and more inclusive level of organization. Thus even
"homeostatic mechanisms" actually further change.

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In "Order Through Fluctuation: An Evolutionary Epistemology for Human Systems"(Dell & Goolishan, 1979), he approaches this idea from another direction. He takes it further, saying that although Maruyama's elaboration of deviation-amplifying processes was necessary to fill the gap left by the emphasis on homeostasis, it posed the artificial dichotomy of separating one aspect of a system from another,and did not take into account the effect of the feedback on the other parts of the system (in medicine referred to as side effects). Anything happening in a system changes it. It is impossible to affect one part in isolation. This means that "what is fed back causes the system as a whole to change at the same time that it may cause the target variable to remain constant. Thus, all feedback is evolutionary". (Dell & Goolishan, 1979, p. 17). No cycles can be exactly the same each time they recur, thus the system is constantly changing. Dell formulates a new law of evolving systems:

> All things being equal a system will evolve toward the maximal complexity attainable given the energy available to it. . . .In human systems such as families, groups and organizations, evolution should be towards greater variability, flexibility, and higher order of process. Such systems become metastable and highly resilient so that they shift freely from one dynamic regime to another as they engage in an ongoing process of self-transcendence. (Dell & Goolishan, 1979, p. 14)

All Feedback Leads to Stability

In <u>Aesthetics of Change</u> (1983), Keeney comes to a
conclusion that is the opposite of Dell's Law of evolving
systems: that all feedback is negative--maintains stability
on some level.

> . . . I prefer to think in terms of hierarchically
> arranged (in a recursive sense) negative feedback.
> With this perspective we avoid the dualism that
> otherwise arises between "positive" and "negative"
> feedback. What sometimes appears as so-called
> "positive feedback", for example, the escalating
> buildup of armaments, is actually part of a higher
> order negative feedback. In the case of the
> armaments race, a nuclear was may be the
> corrective action in a negative feedback process.
> . . .
> What is sometimes called "positive feedback"
> or "amplified deviation" is therefore a partial
> arc or sequence of a more encompassing feedback
> process. The appearance of escalating runaways in
> systems is a consequence of the frame of reference
> an observer has punctuated. Enlarging one's frame
> of reference enables the "runaway" to be seen as a
> variation subject to higher orders of control.
> (Keeney, 1983, p. 72)

Although these two principles, that all feedback is
evolutionary, and that all feedback maintains stability as
part of a higher order system, seem to be opposed, there is
in fact a point of view from which they are not opposed at
all. Both Hoffman and Keeney and Ross address this
question.

In <u>Foundations of Family Therapy</u> (1981), Lynn Hoffman
relates the relativity of positive and negative feedback to
two considerations: time, and level of system. It is not
necessarily true, she says, that negative feedback processes
maintain organization, and positive ones change it. Things

are only this simple when a system is being observed at one moment in time and out of the context of the larger systems of which it is a component. However, given a system over time, and in context, the picture is much more complex.

In some systems, an oscillation between positive and negative feedback processes may result in an overall stability. Positive feedback may move toward change until a critical value is reached, at which point the system reverses the tendency by producing a balancing behavior, which then escalates until a critical value is reached, and so on. It depends on when the system is observed whether it appears to be heading for change, or merely operating within a wider definition of steady state.

An example of this type of process is found in the lemmings, whose number increase dramatically until a critical value is reached, at which point there begins a positive feedback process which culminates in their jumping into the sea. The overall result is stability--continuation of lemmings. Escalating positive feedback, in this case, leads neither toward dissolution nor toward evolution, but toward maintenance, and recurrence of the same cycle over and over.

The picture from the point of view of a different level of system can be quite different: from the point of view of an individual lemming, the next smaller system, the positive feedback processes that lead to jumping into the sea do not

result in equilibrium, but in death. On the level of the next larger system, the ecology of the area in which they live, the result of the fluctuation of lemmings depends on the view of the systems with which they interact (food, predators, etc.).

It is clear that the punctuation of the observer on the lemming system determines whether it is seen as deviation-amplifying or deviation-counteracting, depending on when the observation is made, and of what level of system. What appears to be deviation-amplifying may be part of a larger process that results in stability. The variable then is whether or not that stability is on a higher, reorganized level, or whether it is a regression to a lower level. To this may be added Dell's observation that what may appear to be deviation-counteracting may in fact be moving the system toward change. The variable in this case is whether this change will result in reorganization on a higher level, or regression to a lower one.

Polarities

Bradford Keeney and Jeffrey Ross, in Mind in Therapy, address this same question from another angle. They begin by exploring the concept of polarities. Polarity, besides being an element in the process of change, is the way in which we structure our experience. Each time we make a distinction, its polar opposite is implied. We only vary

which pole we emphasize and how we express the relationship between them.

> In general, all distinctions propose multiple communications. One cannot speak of change without implying stability, autonomy without interdependence, parts without wholes, competition without cooperation. When any difference is made, two ways of talking about its sides are always present: (1) we may speak of their distinction, or (2) we may talk about their connection. (Keeney & Ross, 1985, p. 47)

The authors then go on to elaborate on the relationship between distinction and connection. The example that they use is the interdependence of the fox and rabbit populations, in which the polarity between fox and rabbit, on a higher level, is subsumed under ecosystemic balance of the species. "Any distinction with an underlying logic of competition is also part of a more encompassing distinction with an underlying logic of cooperation" (Keeney & Ross, 1985, p. 48). That is, any polarity, seen from the next higher level of integration, becomes part of a larger whole, rather than two mutually exclusive poles. For the individual fox to win, or for the individual rabbit to win, are mutually exclusive outcomes. On the higher level, both the foxes and the rabbits win as a result of the interaction because their species survive.

Keeney and Ross refer to the higher level of system as a "recursive complementarity of self-referential sides" which seems to be a needlessly complex terminology, explained by the authors as a situation in which "the two

sides must maintain a difference to interact, while their interaction connects them as a whole system. . . . the different sides of a relation participate as a complimentary connection and yet remain distinct" (Keeney & Ross, 1985, p.49). They are simultaneously opposed and unified. The authors discuss this in terms of the stability/change, or change/no-change polarity in therapy.

Stability and Change

Positive and negative feedback are an example of a polarity which on one level of system seem opposed, and on the next higher can be seen to be part of a larger system "with a logic of cooperation". On one level, positive feedback seems to move toward change, and negative feedback toward stability. On the next higher level, the two are unified as both tend to move the system toward morphogenetic change. Morphogenetic change seems to be opposed to stability on the level of the original system, but the two are unified in the concept of ultrastability.

By now it is clear that Keeney's and Dell's conclusions are the two sides of the same coin, the polar opposites which are subsumed into one side of a larger whole. Keeney provides the words for this:

> One cannot, in cybernetics, separate
> stability from change. . . .Cybernetics proposes
> that change cannot be found without the roof of
> stability over its head. Similarly, stability
> will always be rooted to underlying processes of
> change. (Keeney, 1983, p. 70)

It is not necessary to decide whether all feedback is "positive" or "negative"; whether everything ultimately leads to "change" or to "stability". Both are true. All systems change, and in their changing, find stability. All systems find stability, and this stability rests on change.[8]

If all feedback leads to change, and ultimately to morphogenetic change, then the capacity to change is inherent in the system, and the process is inevitable, although some systems will change more noticeably, and some less. If all feedback leads to stability on some level, then the process of morphogenetic change can lead to a new equilibrium at a higher level, in spite of its disruption of the lower level system.

Family Therapy Summary

The family therapists have contributed several concepts that contribute to the theory of morphogenetic change. Rabkin helps to broaden the definition by pointing out the ubiquitous nature of this kind of change in everyday life. This is not only a description of radical personality or life change; this same phenomenon occurs naturally on other levels, both in spontaneous activities of everyday life and in the creative process. It is nothing strange to us.

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8   It is interesting to consider system theory as a system, functioning on a lower level of organization, trying to make the leap of combining homeostasis and morphogenesis into one complete unity.

Both Rabkin and Hoffman characterize the pattern of the process similarly, with attempts to change, mounting dissonance, and a leap to a new order. Rabkin adds a transition stage of incubation or "giving up" between the dissonance and the leap. These descriptions generally match previous descriptions in our investigation.

Another major contribution from family therapy is the elaboration of the role of opposing tendencies in the system. Watzlawick defines the difference between first and second order change in terms of polarized opposites and the co-existence of opposites in a larger frame of reference. This relationship is elaborated by Keeney and Ross in their discussion of the logic of cooperation, and the principle that any opposites resolve and co-exist on the next higher level. It is by definition that reorganization on a higher level will involve the unification of previously polarized opposites.

This same argument contributes another principle: systems can be simultaneously involved in disintegration and reorganization, and which of these the observer sees depends on the level of system being observed. What appears to be keeping a system together may in fact result in its changing, and what appears to be changing it may in fact be keeping it the same.

Dell points out that since nothing ever remains the same or repeats itself, then all systems constantly change,

and all processes within them further this change. Keeney
points out that although this is true, the system maintains
it existence through this changing, and so all processes
serve its ultimate stability.

These arguments serve to emphasize the relativity of
"higher" and "lower" orders of organization, and of
stability and change. Although there may well be an
identifiable process of morphogenetic change in an
individual system at a given time and from one point of
view, things may look very different at another point in
time or from another point of view.

This process of change, which takes place over time,
mirrors the structure of the world of systems in space.
Systems relate to subsystems and supersystems in this same
way, with seemingly opposed elements resolving on the next
higher level. The systems of the foxes and the rabbits seem
opposed until one looks at the next higher level, the system
of foxes-and-rabbits, and both of these systems exist at the
same time.

System Self-Consciousness

The last area of inquiry involves a new direction of
thought. It arises with the question: Why do some systems
reorganize on a higher level, while some disintegrate, and
still others successfully return to the old status quo? It
is all very well to say that they are driven over the edge

to a new organization, or that the elements suddenly and surprisingly combine into a new pattern, but it is not enough.

Keeney and Ross (1985) discuss how systems "change the way they change" (p. 52), to become more versatile. They say that "All adaptive change requires a source of the 'new' from which alternative behaviors, choices, structures, patterns, may be drawn" (Keeney & Ross, 1985, p. 52). They refer to this as a source of the random, or "meaningful noise". The function of "meaningful noise" is to provide the random perturbations which, in dissipative structures, can result in fluctuations which lead to self-transcendence.

For the sleeper, it is some clue that he is asleep, or that he is in the process of waking up. It may be a noise which he recognizes as outside of the frame of reference of the nightmare, maybe even his own voice, or any number of other cues.

In terms of people in crisis situations, this source of the "noise" may be any piece of new information around which they can reorganize, a chance comment or event, a memory reexamined, or a planned intervention. In therapeutic terms, the "noise" is gathered from the system itself and best comes in the form of communications from the therapist/s as they reflect back to the system its communications regarding change, stability and meaning (Keeney & Ross, p. 57).

It is necessary for something to be added to the system, in this view, for it to reorganize. Since no system exists in a vacuum, it is likely that this source of "the random" is readily available in the normal course of events. What is important is that the system be in an internal state where it is able to make use of it-- sufficiently far from equilibrium, and open internally to a new organization.

What does it mean for a system to be internally open to a new organization, and what is it that "takes advantage" of the "meaningful source of the random" ?

The word "meaningful" introduces a new element into the theory. Meaningful may well mean just "useful", in which case the argument is circular. It may also, however, refer to an element which is present in human systems, and which distinguishes human systems from other systems: consciousness. Something performs the action of making "meaning" out of "noise". The system is somehow aware of a difference between the meaningful and the meaningless. This difference is created by consciousness.

It may be argued that, according to some definitions, every system has some form of consciousness. When a system corrects its own behavior, this may be defined as a form of consciousness, or mind (Bateson, 1972, 1979). Human consciousness, however, adds something more: the ability to be an observer, not only of one's environment, but also of oneself. Human consciousness also adds the element of will

and intention. With self-consciousness, or consciousness of consciousness, we can intend to reorganize.

Self-consciousness, as the consciousness of consciousness, is a higher level system. Self-consciousness is an aspect of the "I" in Psychosynthesis--a higher level ordering principle. Self-consciousness is transcendent in itself, and opens the way for system transformation.

The concept of consciousness/self-consciousness provides another viewpoint to investigate "ongoingness", or what it is that remains the same when a system reorganizes. It is consciousness that creates this ongoingness, in that we make meaning out of the collection of components by naming it a particular system, and we continue to name it thus when we see these components.

Maturana refers to this same phenomenon when he speaks of system creation through language. Language is a coupling behavior among systems; it is a "coordination of conduct about coordination of conduct" (Dell, Efron & Colapinto 1985) i.e., systems can talk about themselves and each other, and about what they do. Language is interactional, and through language arises the observer, and the distinctions that the observer makes. Maturana contends that it is the act of making distinctions that creates unities, systems, which did not exist before their identification in language. This gives consciousness, or

"that awareness about which systems talk to each other" an even more important role in the creation of systems.

There is, therefore, a qualitative difference in kinds of systems at the level of human observer. As observers, we create systems through language. The systems that we belong to as components are different, in that they hold the potential of having an observer as a component, which creates the opportunity of creating a new system from the inside out. This observer component, however, is not outside of the system, or independent of it. It is an integral part of it.

Paul Dell elaborates on this idea. He approaches self-consciousness through speculations on the process of becoming metastable and resilient in the case of human systems. He discusses self-transcending processes in the evolution of a group. The first level of process involves what a participant does, and how this affects the group. The second level involves what this action/reaction says about the group, how it changes the group itself. A group that functions on the second level is able to reorganize to create different actions/reactions, that is, to see the effects of their actions as creating the group. Dell (Dell & Goolishian, p. 27) mentions Gregory Bateson's definition of wisdom: the consciousness of how our world view and ourselves participate in making the world--we participate in the system, and our participation creates the system in

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which we participate. It is this knowledge of self as system that Cathy Bateson calls "system self-consciousness" (M. C. Bateson 1977 p. 70, in Dell & Goolishan, 1979, p.27).

Dell calls this consciousness of self as system the "evolutionary level of perception" and the "most flexible and resilient of autopoietic organizations". It surrenders dualism and recognizes that we are part of all that happens including our observing/observations. This is a way that human systems become ultrastable. In a sense, it could be seen that this consciousness of losing the distinction between self and system transforms each component/person to a higher level, more inclusive system, a sort of meta-differentiation: I am entirely myself and entirely my system at the same time; there is no conflict between the two. The sum of these components, now identified with the larger whole, is a larger-larger whole--a meta system.

The Process of Morphogenetic Change: Synthesis

The next task is to return to the process itself, as a recognizable sequence of events, or at least a series of components, and to pull together the elements of morphogenetic change in human systems.

The process as a whole is one that goes toward integration and hierarchical organization, in agreement with Werner's Orthogenetic Law and Dell's Law of Evolving Systems. The general outline of the process as a whole

follows a recognizable pattern, at least in theory, and
consists of a series of recognizable events.

Richard Caple (1985) provides a good summary of the
process:

> Fluctuations are created by the continuous
> flow of energy through a system. Many
> fluctuations are absorbed and adjusted to by the
> system without altering its structural
> [organizational, in Maturana's terminology]
> integrity. This is called first order change. If
> and when fluctuations become sufficiently
> turbulent and increase the number of different and
> significant interactions within the system, which
> results in elements of the old pattern interacting
> with each other in new ways, the system transforms
> itself into a higher order in which structural
> [organizational] changes do occur. This may be
> referred to as second order change. Each new level
> is more integrated and connected than the previous
> one, and requires a larger flow of energy. As a
> result it is still less stable. Thus, each
> transformation makes the next more likely. This
> concept supports the existential attitude that
> accepts the human being as always becoming, which,
> also, can mean potentially in crisis. (Caple,
> 1985, p. 175)

The beginning conditions can be seen in terms of the
state of being of the system (e.g. amount of differentiation
between the components, the independence, complexity and
flexibility of the components) and in terms of the processes
occurring within it (e.g.increased dissonance, the
occurrence of small fluctuations and deviation amplifying
feedback processes).

The next step is a discussion of the shift, or turning
point, itself. This part is by far the most complex and
difficult to explain, posing as it does a "truly systemic"
problem of using a linear arrangement of words and meanings

to indicate several things happening simultaneously and interrelated so that cause and effect are indistinguishable. This is also the most difficult because it is the stage in which it is necessary to define a qualitative shift, something in which our language falls short. It is difficult as well because the shift is not truly a stage at all, but rather an instantaneous event, the transition from one state of being to another, from one stage to another.

The last area of consideration is the synthesis, or end state, defined more in contrast with the beginning state than as a thing in itself, i.e. it is a qualitatively different arrangement of the same elements.

Beginning state

The most obvious aspect of the beginning state is the presence of a system to describe. This may be an individual, a group of individuals, or a group of groups, as in an organization or a nation. What are the characteristics of this system that are the necessary preconditions for a morphogenetic change? It appears that a crucial factor is identified in the concept of relative "openness", or flexibility of relationship to environment, and to self. A system that is relatively closed or inflexible will try to maintain its organization unchanged in response to perturbations.

The more a system tries to maintain its organization, the more rigidly it responds, and the less adaptive it is. A rigid system is more likely to be driven to disequilibrium, and so is likely to go over the edge into morphogenetic change.

Once the process of disequilibrium and break-down is underway, a system which is relatively open is more likely to evolve than a system that is relatively closed.

A relatively closed system is more likely to revert to a less integrated, more chaotic organization. A relatively open system is open to new information, or new perturbations from the environment, and so is more likely to incorporate information that will allow it to reorganize in a new way.

In the other meaning of openness, a crucial factor is openness within the system itself--openness to the potential for change within itself, and openness as in flexibility to change the interrelationships of the parts. The degree of openness of the system to the potential for change within itself is a determining factor in whether it will evolve or dissolve once the process is underway.

Flexibility in a complex system varies with the amount of differentiation of components, as well as openness to environment. A hierarchical organization creates more independence of elements; this form of organization is more flexible, and also further from equilibrium. It raises the stakes: division of labor means worse problems if one

component stops functioning. It also means that the individual components have an equilibrium maintaining process of their own, and can change separately. It is more efficient if the entire system is not required to change simultaneously, and thus the system has more capacity to adapt.

The more differentiated the components of a system are from each other, the more likely the system is to move toward greater integration, and in fact part of the process of moving toward integration is differentiation.

Such a system, then, is called upon to change, or to go outside of the existing parameters that define its equilibrium maintaining processes. The impetus for this change may be internally generated developmental or creative impulse, such as learning to walk, creating a new theory to accommodate new information, adopting a new self-image, or a change in family membership by the addition of a baby or loss of a grandparent. The impetus may also be externally generated, as in the necessity of adapting to a new culture, therapeutic intervention, life crisis such as loss of job or wife, or an organization forced to adapt to the lack of demand for its product.

This necessity for change means that the system cannot continue to maintain itself through its customary means. It must now change the way it changes, in second order changes

of organization, acting according to new underlying
principles of behavior.

The Process of Change

The primary process through which the change occurs is
the positive, or deviation-amplifying, feedback loop.
Initially, the system reacts to some initial kick--some
event, internal or external, occurs, to which the system
tries to adapt. This compensatory action does not restore
equilibrium, and the system tries again with the same or
similar means. Each successive try makes the situation
worse, and creates more need to try again. In human systems
this produces the experience of dissonance, or desire to
integrate, finish the gestalt, return to a state of dynamic
equilibrium. This dissonance indicates that the system is
getting farther from equilibrium, and as feedback, drives it
further from equilibrium.

Dissonance increases as it becomes clear that "business
as usual" cannot be resumed, and that there is no clear
alternative. Lynn Hoffman refers to this maximum dissonance
as the "sweat box" (Hoffman, 1981, p. 170). The system
processes break down, and the system reverts to a lesser
degree of integration. Subsystems begin to function
autonomously and without coordination, i.e. become free of
the organization. The system struggles in a polarized
conflict between the old way (stability) and the

disintegration (change), and between other opposing elements.

At some point there comes a time when the dissonance reaches its peak and the old organization is gone. The old organizing principles have fallen apart. The process of falling apart has released the bonds, definitions, meanings and tension within the system, creating the possibility of reorganization. There is no old organization to steadfastly maintain, so the opposition of change and stability is no longer present, as well as the organization which maintained other relationships of opposition within the system. This can be seen as a transition state of relative calm, Rabkin's incubation stage.

At this time, the system is at maximum distance from equilibrium, and is highly sensitive to any input. It is internally open; the relationship between components is no longer fixed, and new interactions can occur.

The Shift

The bifurcation point is reached. The system can either move toward reorganization and integration, or toward further disintegration. Which way the system will go is unpredictable, and is a product of the internal processes, not "caused" by the initial factor which was the occasion for change. Some source of "meaningful noise" (input which is relevant and congruent with the system's organizational

potential) provides another initial kick, this time the crucial factor which begins a new positive or deviation-amplifying feedback process, upon which the new organization can be built.

If the system reorganizes on a new or more integrated level, the shift which we call morphogenetic change occurs. This shift is an instantaneous, qualitative shift, in which the system, composed of basically the same components, reorganizes to become a new system. This process of reorganization has three attributes: It is discontinuous and complete, it seems to be triggered, and the shift itself does not take time.

End State

The end state is a new organization that is both a new system entirely, and the old system as well. The new system was held in potential within the old one, and grew from it, rather than being in any sense the product of the outside intervention, although the intervention was essential in setting the process in motion.

The components of the old system are organized differently in the light of a new integrative and inclusive organizing principle, which can be seen as a unifying center. What were previously mutually exclusive components or relationships are now co-existent, seen from a larger perspective as unified.

New properties of the components arise through the newly established context or through interrelationships which could not have been manifested before, although they were potential in the same components.

This new system is more differentiated and more complex than the old, and thus farther from equilibrium and requiring more energy to maintain.

The system is more likely to undergo another such change, and more able to negotiate it successfully. It is more flexible, and thus more stable. Meanwhile, the new system is composed of self-maintaining processes which maintain a new status quo and thus preserve the system as a unity. Thus, the product of this process appears to be change, if you look at differences, or stability, if you look at continuity. The end result of all systemic feedback processes is both change and stability--all feedback is both positive and negative, depending on how you look at it.

The next step in this investigation is to lay all this theory aside, and look to the actual experience of morphogenetic change in human systems, to discover whether there is a correlation between the stages in theory and the experience in reality.

CHAPTER III

METHODS AND PROCEDURES

Design of the Study

This study was designed as a preliminary investigation
of the experience of human systems undergoing morphogenetic
change. In the process of formulating a theoretical
description of this process, the need for an experience-
based theory became clear The theoretical material has been
derived primarily from the physical sciences. Those
theoreticians in the therapy field who have attempted to
apply the theory to human beings have done so primarily as
theoreticians, remaining true to the theory and perhaps
modifying it to fit human systems (Dell, Efron & Colapinto,
1985, provide an example of this, pointing out that Maturana
does not consider social systems to be autopoietic systems,
but many family therapists do). No one has conducted a
study of this phenomenon which derives from the actual
processes of human systems.

The best way to begin a study of human systems is to go
directly to the source, the human beings themselves. The
best way to begin a study of systems of varying complexity
is to go to the simplest available, the single human being.
This study was designed to elicit as much information as

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possible from individual human beings regarding the process of change.

Because the goal of the study was to derive a theory from experience, rather than the other way around, it was important for the researcher to obtain material that was as unbiased as possible. For this reason, the qualitative research method of phenomenological, in-depth interviewing was selected as most likely to produce the desired information. With this method, the focus is on the experience of the participant, in his/her own words, and the information relates not to the quantity of the change, but rather the quality. The method of open-ended, in-depth interviewing is uniquely suited to the task, allowing the participants to recount the experience in their own words with minimal interference from the interviewer.

> Qualitative measures describe the experience of
> people in depth. The data are open-ended in order
> to find out what people's lives, experiences, and
> interactions mean to them in their own terms and
> in their natural settings. Qualitative measures
> permit the evaluation researcher to record and
> understand people on their own terms. (Patton,
> 1986, p.22)

Data for this study was collected by means of the qualitative interview process as outlined by Patton (pp 197-205). The interview format was basically the standardized open-ended interview (Patton, pp. 202-205). In the interest of addressing relevant themes, and gathering the same kind of data from each participant, a semi-structured format was developed which allowed participants to express their

experience freely, while also directing them to comment on the major themes relevant to the study. Since it is important in a study of this kind to be open to unexpected information, the interviewer was free to add clarifying or new questions as appropriate, in addition to the structured questions.

Participants in the study

The participants of this study were initially self-selected. They all voluntarily responded to a notice asking for subjects for interviewing [See appendix (A) for the text of the letter].

As people responded to the letter, it became apparent that changes in the letter were necessary. The letter asked for people who had undergone some major change in their lives which was sudden and preceded by difficulty. Volunteers called to say that they were sure that they had had an experience that fit perfectly, but they wouldn't call it sudden exactly, or that they wouldn't call what preceded the change crisis, but would I talk to them anyway. No one said that they thought they fit the pattern, but they all said that they knew exactly what was meant and were excited about the project.

The researcher talked to these people about their experiences, focusing on whether or not the change involved a radical reorientation and qualitative shift. All of those

who volunteered fit this criterion, and an amended notice was written [see appendix B]. This need to rewrite the notice letter was the first relevant piece of data, and instigated the process of data analysis immediately.

Volunteers were accepted based on whether or not their experience fit the criteria for morphogenetic change, i.e. that have experienced a radical reorientation and qualitative shift. No attempt was made to balance numbers of males and females, ages, professions, or educational levels, on the theory that any human system is appropriate for a preliminary study of this kind. The only criterion which eliminated volunteers was that they had read the researcher's other writings on the subject, as this might bias their interpretation of their experience, and increase the likelihood that they would use the researcher's terminology rather than their own words.

Collection of Data

Data was collected by means of interviews of approximately one hour in length. Participants were given a choice of where they wanted to meet for the interview. Some participants chose to meet in their homes, and some elected to meet in the researcher's office due to distractions in the home.

Procedure

In the beginning of the interview, participants were told what to expect: that they would be asked a few demographic questions, then asked to recount their story as it was experienced by them, and that they would then be asked a few standard questions "just to make sure that no important areas were left out".

They were given the participants' consent form [Appendix C] to read and sign before the interview progressed. Any questions that they had about the form or the interview were answered. They were given a copy of the signed form and then the tape recorder was turned on and the interview begun.

At the end of the interview participants were thanked for their participation and asked if there was anything else "that you are going to wish that you had said". Some participants added a few words here. One requested that the tape be turned on as we walked out to our cars, and the final words were recorded on the sidewalk.

Several participants commented on the usefulness of the interview in reviewing the change and carrying the learning process another step further. Most were excited about the premise that a framework for an understanding of the process would be valuable for people who are involved in it.

After all the interviews were completed they were professionally transcribed. Each participant received a

copy of the complete transcription to assure that there were no serious typing errors or interpretations.

Interview Guide

The interview guide, [Appendix D] was developed as a result of a pilot interview which had been conducted several months earlier. In this interview, the participant was asked to tell her story as she experienced it, and the interviewer, rather than having a predetermined set of questions, asked questions which clarified the material as the participant went along. This resulted in a rich and detailed narrative, but was subject to too much directing by the researcher, as many clarifying question also carried with them the researcher's expectations of the answer. Some areas were not specifically covered which became important in the present study: the questions regarding what was helpful, what was not helpful, and advice for others.

On the basis of this pilot interview a set of questions was designed which would be open-ended enough to encourage the participants' own perceptions, but which assured that the same general areas would be covered in each interview.

The first question, "Tell me about your experience", is designed to elicit whatever story the participant considers important, in his/her own words. The researcher made almost no comment throughout this part, other than asking questions

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to clarify anything not understood, and offering minimal encouraging cues.

The second question, "If you had to describe this experience in stages or chapters, what would you say?" proved to be very interesting for the participants, enabling them to think about the experience in a way that they had not previously considered it. Most of them commented on what an interesting question it was. It was designed to elicit information about turning points, stages, and any other divisions which they perceived.

The third question, "When did you first notice that things were different?" was generally already answered by this point in the interview. Participants had either indicated that there was no special time when they noticed a difference, or had told about a specific turning point when things changed. In retrospect, it would have been better to ask this question anyway, but in the form "Was there any point where you first noticed that things were different?" This question was designed for people who did not perceive an event that constituted a turning point to see whether there was in fact a turning point of some other kind.

The fourth question, "What made it possible for you to change?" was designed to elicit any internal or external circumstances which the participant felt were particularly instrumental. These might be internal conditions of the system, or outside circumstances or interventions.

The fifth question, "What do you suppose might have happened if you had not changed? (had given up, chosen to go back, etc.)" elicited information about the alternative to reorganization on a higher level. This question was designed to determine whether the alternative is disintegration or return to the status quo, whether either of these would result in the change later on anyway, or whether there was in fact a perceived alternative at all.

The sixth question, "Was there a relationship between the difficulty and the amount that you changed?" was designed to elicit information about whether the experience of difficulty, dissonance or crisis was perceived as a necessary or valuable part of the process.

The seventh question, "What was helpful to you while you were having this experience? (External or internal conditions or interventions)" and the eighth, "What was not helpful to you while you were having this experience?" were directly relevant to the development of this theory as a way to assist people involved in this kind of change.

The last question, "What advice do you have for people going through something like this?" was designed to serve the same purpose as the last two, but also turned out to be a question which was very useful to the participants in putting their thoughts together, as was question number two.

Analysis of data

In actual fact, the process of data analysis began during the first interview, and continued through the final typing. The collection of data involves continual discovery, formulation and reformulation of hypotheses, and this process continues throughout the study. This phenomenon is discussed by Filstead (1970), who notes:

> In qualitative work, just as there is no clear-cut line between data collection and analysis (except during periods of systematic reflection), there is no sharp division between implicit coding and either data collection or data analysis. There tends to be a continual blurring and intertwining of all three operations from the beginning of the investigation until near its end. (p. 291)

The formal period of data analysis, however, began when the transcriptions were read by the researcher several times. They were then condensed into profiles--continuous narratives of the participants' stories, using only their own words. They were condensed in a manner which allowed the basic pattern to emerge, but maintained the spirit and content of the original. These profiles were sent to the participants for their approval. One participant clarified the meaning of something she had said, and another clarified the sequence of events, and all indicated basic approval of the narrative and gave permission to use it.

In the process of reading the transcripts, patterns began to emerge in the data, and hypotheses were formed as to what might emerge later on.

Each profile was then read a minimum of five times, varying the order of reading, until basic themes began to emerge out of the data. At this point a preliminary analysis was written which about each profile. The process of writing the analyses was a constant process of revision as new information presented itself, and new interpretations were suggested by the material. The process of writing one analysis would generate an idea which would then change the analyses of the profiles which had been done before.

The analyses incorporated answers to questions which were in the interview but not in the profile. The answers to the questions on "chapter divisions" and on what might have happened if they had not been able to change were incorporated in this way.

After all of the analyses of the profiles were finished, they were then examined in comparison with each other. Data derived from this examination covered elements which all interviews had in common, and elements which appeared often enough to be considered important, if not universal, elements. The profiles were then examined for common sequences of events. The data that emerged at this point is presented in tables #1, 2, and 3.

This data was then formulated into an experience-based theory derived from these examples.

This formulation was then compared to the theory derived in the literature review. The elements in the

process which were elaborated in the theoretical summary were also compared one by one with the data which emerged in the profiles.

After this analysis was completed, the answers to the questions on what was helpful and not helpful, advice for others, and the relationship between the difficulty and the change were compiled separately. These were organized into a separate section on assisting the process.

Limitations of the study

This study was designed to be a preliminary investigation. As such, it was not designed to provide any definitive information. It is limited by several factors:

1. The sample size is very small. It is important not to generalize at this stage of the investigation. The results of this research are a reflection only of the experiences of these twelve people. It provides, however, a frame of reference from which to conduct further research.

2. The sample consists of white, middle class, educated adults, between the ages of 20 and 53, primarily women. It may be that a more diverse sample, including more men, more older people, and more diversity of culture and background would yield significantly different data.

3. The sample was drawn from volunteers who were articulate about their experiences and interested in such research. Results from a more random sample of the general

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population might have yielded a much more diverse vocabulary and range of experience.

4. The elements of the process which emerged from the data were gathered by only one researcher. Several readers analyzing the same material would provide a safeguard against researcher

single-mindedness, bias, and other limitations.

5. The participants were all people who have completed a process of change, and thus their stories are told in retrospect. Interviews which follow people currently involved in the process might yield richer and/or different data.

CHAPTER IV

RESULTS OF RESEARCH

Introduction

The profiles of the twelve participants are presented
here, each followed by an analysis of the profile in terms
of morphogenetic change. The basic components of the
process, as perceived by the researcher, are outlined in the
analysis. Following the profiles and analyses is a
synthesis of the data, pulling together from the stories an
experience-based theory of morphogenetic change as reflected
in the stories of these twelve participants. This is then
compared with the general theory derived in the theoretical
section.

In the analyses of the interviews, the temptation was
to use the terminology of the theoretical section, thereby
letting the theory influence the researcher's perceptions of
the experience. Although this was the tendency in the
beginning of the investigation, it became apparent very soon
that this vocabulary did not fit with the experiences. It
became essential to create a more precise vocabulary to
refer to the process. Terms like "initial kick" and
"bifurcation point", which were borrowed from the
theoretical section, were found to refer to too many
different kinds of events when applied to experience, and
therefore were not useful as mental reference points. The

following definitions are those used in this section as pre-
liminary organizing concepts:

Pivotal events play a significant part in the story,
usually to initiate a process. They are recognizable in the
interview by a change in the style of narration. The story
moves from a general discussion of the process to a play-by-
play description of an event. It is as though one section
suddenly comes into focus, or a magnifying glass is suddenly
applied to one piece. Pivotal events occur at any point
during the process.

The transformation point is a kind of pivotal event.
It refers to Rabkin's "saltus"--an identifiable moment of
reorganization. It may be a pivotal event.

Turning point refers to any noticeable change of
direction or intensity within the process. It may mark the
increasing dissonance, maximum dissonance, movement toward
reorganization, or any other change. A transformation point
is a turning point, but not every turning point is a
transformation point. A turning point may also be
described as a pivotal event.

Significant information refers to a piece of
information that contributes to a change, either as one of
many with subtle effect, or as a new and fundamental piece
which then provides a new unifying principle.

Surrender refers to an attitude on the part of the
participant which involves giving up, acceptance or any

other attitude which releases him/her from active struggle against the change process.

Other terms which are originally derived from the theoretical section and which remain the most useful vocabulary for referring to systems include: escalating positive feedback processes; disintegration; reorganization; equilibrium; irreversibility; first and second order change; and occasionally, initial kick, referring to an event which initiates any positive feedback process, and probably others which are less obvious.

Participant #1

Participant #1, was thirty-six years old when the
incident occurred that changed his life in a matter of
seconds, followed by another incident which was the catalyst
for morphogenetic change. The incidents occurred two years
ago.

Before, ah -- before, everything was -- in terms of my
family life everything was absolutely wonderful and rosy,
and what I considered absolutely perfect. And everything
was going exactly the way I wanted it and we were really
moving, we were really coming together, things were really,
just really -- we were just really getting focused, really
getting it together, felt really, really great.
We had lived together for three years. And we had just
been -- we got, we actually got legally married a week
before the accident. And actually we were on -- we were
taking our kid with us on a vacation, on our, you know,
honeymoon. That's when the accident happened. And it was
like -- we had spent three years together, we had had a kid,
you know, we had done all these things consciously, but now
we were really affirming our bond and really --
I was involved -- a big part of this, I was involved in
the community, a communal setting. And I was really, really
dedicated to that whole communal situation, communal view,
and that was like really, really a focus of my life. And
so, part of me actually marrying my wife was a real change
in my focus. I was in the process of saying, OK, the
community is not the most important thing in my life
anymore. My family is now the most important thing in my
life, this is my main focus and I'm affirming it in doing
that. I'd spent 15 years in this community up to that
point, totally given myself to the cause. Big, big change.
Major, major change, I said, yeah, this is my focus now,
this is what my life is all about, this is what my life is
centered around, the most important thing to me.
It's like up to that point I think that, ah, in a
certain sense I might have had a holier-than-thou attitude .
about the world in general. It's like we had rebelled
against the world, the world was not a loving place, the
world was not -- we had some answers that other people
didn't have, you know. There was something going on for us
that they didn't get, they didn't see, we saw something more

than they saw. And, and I was -- I mean, getting married was like a little step away from that.

We got, we actually got legally married a week before the accident. And actually we were on -- we were taking our kid with us on a vacation, on our, you know, honeymoon. That's when the accident happened.

We were in a rest area, standing there, and this car was coming into the rest area. But what we didn't know was that the guy who was driving the car was asleep at the wheel. So, we're -- and I was on, like, one side of the -- you know, there's the highway, and there's the island, and there's the roadway of the rest area, and then there's the other part of the grass.

My son and my -- my son had like walked out into the roadway of the rest area and I said, you know, M. is in the road and there's a car coming in. She said, OK. She went -- she grabbed him and instead of walking back, it was closer, you know, she walked to the other side. So she was standing on the other side and I was standing on this side. And so the car came in and it was just kind of drifting slowly more towards that side than my side, and I'm watching -- I'm watching it. I'm going, why is that car getting so close to them, what is wrong with that asshole. Is he trying to scare her, you know? What kind of a trip is he doing? And I was getting angrier and angrier and angrier, and just in the last second the car just went -- and kind of turned like that, and hit them. And they just went flying up in the air.

I was standing there watching it. And my other daughter, who's 11 now, she was -- she had gone across the street and was standing right next to them. And in the very last second had stepped -- saw the car, that it was actually going to hit them, and had taken one step back.

My wife was like just standing there waiting for this car to pass, you know, kind of looking at this guy. You know, ho-hum, this car`s going by, we're going to wait. And so, so -- I mean, you know, I heard the sound of the car hitting them, and it was like, ugh, the most horrible sound in the world. And watching their bodies flying up in the air. And instantaneously I was screaming, no, no, no, no, no. And the car came up -- hit them, and came back down off the curb and then went off into the rest area, and I guess the impact woke the guy up and 200 yards down the road he was screeching to a halt.

And I'm staring in utter disbelief. I just refused -- I still refuse to accept the fact that that happened, that that is a reality, you know. And I was just screaming, no, no, no, just screaming. And then I saw him get out of the car and I started screaming at him to come help me, you know. And he was, and he was just like this 83-year old man, that was like -- he's like going, oh, my god, what have I done, what have I done. And I'm going, get over here and

help me, you know. Just like, screaming, just like, you know, totally -- totally -- you know, all my energy, all my adrenalin, all my anger, all my everything, just totally maxed out. And he never came over. He just stayed away.

And, ah, I ran across the street and, you know, and got S. and brought her back over. Tried to comfort her. She was in hysterics, she was absolutely totally hysterically crying, for two straight hours.

OK. So, and, and I looked -- you know, it's like I looked at -- I could function on -- I looked at my son -- some people were, came running up, and they held S. and I went back and I looked at my son and he wasn't breathing, and I looked at my wife and she was all banged up, but she was breathing. So I said, I got to see if I can help him.

So I started -- I mean, you know, before that it's like, my god -- you know, it's like -- the thought that went through my head is, like, I'm dead. That's was I thought, oh, my god, I'm dead. You know, that was the thought that went through my head. And then I said, I don't know what to do, what do I do, you know. And I--so I gave him mouth-to-mouth, try to bring him back. His neck was broken so it didn't matter, but I kept trying. And, ah, I kept doing that and then this police car came up and the policeman worked with me, trying to give him CPR, and he called the ambulance, and so.... And it just -- just on and on and on.

Um, ...they took my son to the hospital, they took my wife to the hospital. And I'm sitting there. And I had seen this thing on TV a couple of weeks ago where some kid had fallen into the ice and he was, wasn't breathing for like two hours and they brought him back, they resuscitated him. But that was because it was ice and it was....But I had saw that, so that was like this glimmer of hope.

So we sat there for an hour, they worked on them for an hour in the hospital, and the doctors came in and they said, he's dead, we can't bring him back. And I just went, no. I said, I said, you got to keep trying [crying]. Because I couldn't -- I just couldn't accept it, you know. I said, no, you got to keep trying.

And they said -- he said, he's gone, you just got -- you know, it's too late. You want to come in and see him? And I was like, why bother, he's gone, you know. I just did not -- I didn't want to see him. So, so, anyway -- you know, I mean I'm still not accepting, OK, he's really gone, it's still hard, you know. I can't really believe it. And there's always this glimmer of hope, totally irrational hope, that there's some way that he could come back, you know. So that still lingers. It's not over, he's still -- you know. And then they said, well, we -- your wife's really badly hurt, you know. We don't have enough facilities to take care of her. So we had to go to another hospital, up to another hospital for her. And I had a sense that she wasn't going to make it. I had this feeling, like,

forget it, and this -- it was like -- but I just had the sense, forget it, she's too far gone. But I wasn't sure.

I wasn't sure, but that was my sense. And I sat there for hours, you know. And they said, well, we're going -- we need to open her up and see if her organs are damaged, and this, that, and the other. Do you want to come up and see her? I said, yeah. I came up to see her, and she didn't look like her -- I mean, her whole body was so puffed and out of shape and black and blue and distorted that it didn't even look like her, you know. It was like, it was so far from her, looking at--forget it, it's not even her anymore.

And, and, ah, you know -- and it was, like, my daughter wanted to see her and I said, you don't want to see her, I don't want you to see her because you won't even recognize her, it's not worth it. And, so, and I went to the doctor and said, please, look, don't keep her alive on machines. If she's going -- because I could just tell, I said, if she's going to be gone, and I could -- don't just drag this on ridiculously, please. And it was really nice because he had had his father die over the -- you know, a few months, like, four months before, and his father had been kept alive for a long time on machines, and so he got -- he knew. It was like -- and he let me know that, and he said, I won't, I won't keep her alive if it's really clear. Well, I had a sense, you know -- so, my feeling was, my feeling was -- at that point was, let's just end it, get it over with. But they couldn't for -- they had to keep her alive, legally they couldn't, for like another day. Because they had to make sure that she was brain dead and all this.

I was in such what I considered a helpless, needy place that the smallest gesture by any individual, whether it was a nun or a priest or nurse or doctor or a state trooper -- you know, like this nun gave me this little burnt piece of toast when I got to the hospital. It was like white bread, it was burnt toast, but it was like I was so grateful it was most -- it was the most moving thing that I could remember happening to me. And it was like, who am I trying to kid? I mean, there's love everywhere.

You know, oh, this institution, oh, it's a hospital, oh, it's doctors, oh, it's Catholic priests, for crying out loud. You know, it was like, wow, I'm being touched and I'm feeling them and they're caring about me and they're loving me and, you know. So it was like my whole world view was like totally....

There is -- and everyone has it and, you know, I'm so appreciative for the smallest little, you know, crust of bread from somebody. And it was so humbling, it was so beautiful for me. You know, I felt so -- suddenly I felt -- you know, all this time I had felt like, oh, we're in this community, we're isolated from the world, and suddenly I felt so connected to every other human being, I felt suddenly I was totally a part of the human --I'm human,

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they're human, we're all human, and we're all in this
together. It's like -- suddenly my family got real big.
Instantaneously got big.

Uh, it's, um -- what happened was that I went back to
the community and it was like, this is my new experience of
the world, and I quit the community. I said I can no longer
in conscience be a member of this community, can't do it
anymore. It's a sham, it's a fake, it's not the truth, this
is -- you know. All these things we're saying and
professing and carrying on about, it's just not so. And I'm
not going to live a lie anymore. I refuse to live the lie.

I felt isolated and alone, but every little thing
somebody -- I was so open, I was so just totally vulnerable,
before I would have walked around with some kind of
protective barrier around me and kept people and things at a
distance. And I was so just blown open that everything that
everybody.... Everything that everybody did touched me. I
could feel everything every.... And I was in such a
traumatic and needy place that everybody that I was running
into was totally compassionate, empathetic, warm, caring. I
mean, I was just -- and I was feeling it and I was just
totally blown out by it, because it was totally
contradictory to everything that I'd been holding on to for
so many years.

I couldn't do my--I couldn't do my job anymore because
-- well, because it was like, what am I struggling and
earning this money for, you know. Who am I working for, why
am I working? I had no purpose other than just, you know,
food, so that my daughter and myself could survive and I
just maintained the bare, bare minimum. And I'm still
maintaining the bare minimum so that we can eat, but I
refuse to do anything above what I consider to be absolutely
essential. And I went for a long time -- I went for almost
a year looking for something to plug into, something that I
could -- I was like, my sense of meaning about being alive
was just like really shot. And, you know, I felt like
killing myself.

And then, after the accident, I was talking to people,
you know, very, very deeply, very, very intimately, and that
was the only thing that seemed to have any value or purpose
to me, is the interaction, the one-on-one interaction. The
connection with another human being at that kind of depth.
And that's what I just kept seeking. I kept seeking that
more and more. You know, I need that depth, I need that
interaction, that exchange, that contact, you know.

And, ah, I think that has stayed with me, that sense of
one big family, that connectedness, has stayed with me.
It's been two years now, and, yeah, you know, I start to --
I have tendencies, you know, because it's -- tendencies to
start being protective and isolated in the world but it
doesn't last and it doesn't hold on, it just stays -- it
just evaporates immediately. I can't hold on to it at all.

And I remind myself constantly, when I start feeling that isolation thing, that -- I remind myself of how I felt at the accident, because it was so powerful.

I'm still dealing with the accident, I'm still working on accepting that it happened and that I experienced it and that they're gone, you know, which is the hardest thing, that I still haven't totally let go. I still haven't done that totally. Just last night I had a dream with my wife in it. And, uhh, so, I feel like, I feel like it sounds trite, but it is, it's a long process and I just have to little by little let go more and more. And what's interesting to see is that I'm, is that I'm involved again and I've found a new mate and, and the more I get into my new situation the more I have to let go of the past. And so, so that's it. You know, it's like, you know, it's a letting go, and I don't know this to be true, but everybody says it just goes on and on and on.

Analysis of Interview #1

The chapters that he recognizes are "before" and "during", an indication that he considers the process to be ongoing. Since he also tells about a transformation, this means that we are actually dealing with two separate systems, two processes. The first is his relationship with his wife, which goes through the dissolution of the accident into dissonance, where it remains. It is this process that is ongoing, and, naturally, the one which is foremost in his mind, since the pain is still acute. He remains on a level of functioning that is less differentiated, less complex and less integrated, reverting to an earlier level. "And I'm still maintaining the bare minimum so that we can eat, but I refuse to do anything above what I consider to be absolutely essential".

The other is the system of his relationship to the world, which moves from isolated, through the disintegration of the accident, and into inclusiveness and unity at the transformation point.

In this story, we have first the previews of the direction that this change will go:

> "There were changes in attitudes leading up to
> that. The change from letting go of the community
> to the, to going into the totally new scene, the
> family scene."

He had begun to let go of the old orientation with the community as his main focus, and had shifted his focus to the marriage. He had also begun to let go of the isolated,

rebellion-against-the-world orientation: "Getting married was like a little step away from that." This demonstrates a flexibility already existing within the system--this is a system that knows how to change focus. This system is open to outside information and inside rearrangement.

The previews of the direction of the change also provide the theme: the dichotomy between self and other, family and community, community and world.

The accident itself provides a very dramatic turning point, which plunges the system into total chaos. His thought is "I'm dead"--which, in a sense he is. He will never be the same again, no previous means of maintaining equilibrium can restore order. He is very far from equilibrium, and experiencing the maximum amount of dissonance: "And instantaneously I was screaming, no, no, no, no, no." Everything is destroyed--his relationship to his wife and child, his marriage and thus to his focus in life, as well as the routine of his everyday life. The disintegration, in this case, is instantaneous.

Although the disintegration is instantaneous, he still, in the very beginning, tries to hold his world together. He tries to keep his son alive; he remembers stories in which people survived. He struggles against the truth, aligning with one side of the polarity.

Throughout the hospital scene he is at maximum distance from equilibrium, and recognizes his extreme sensitivity to

outside influence: "And I was so just blown open that everything that everybody....I was in such what I considered a helpless, needy place that the smallest gesture by any individual, whether it was a nun or a priest or nurse or doctor or a state trooper. . ."   This state of openness can also be considered to be a regression to an earlier level, the helplessness of childhood, before he had built around himself the construct of separateness.

The next incident, when he is brought the piece of burnt toast, is the transformation point and precipitates the morphogenetic change.

The significant information in this case is internally generated from the gesture of the toast: a thought that there is love everywhere. This forms the organizing principle for the new organization.

His description of the alternative to reorganization is of disintegration: "I think I would have gone nuts. (laugh) I just would have totally had a breakdown or something".

He also recognizes the irreversibility of the change:

That sense of one big family, that connectedness, has stayed with me. It's been two years now, and, yeah, you know, I start to -- I have tendencies. . . . to start being protective and isolated in the world but it doesn't last and it doesn't hold on, it just stays -- it just evaporates immediately. I can't hold on to it at all.

His description of the qualitative difference between before and after is framed in terms of separation and unity:

All this time I had felt like, oh, we're in this
community, we're isolated from the world, and
suddenly I felt so connected to every other human
being, I felt suddenly I was totally a part of the
human --I'm human, they're human, we're all human,
and we're all in this together. It's like --
suddenly my family got real big. Instantaneously
got big.

He resolves the theme of the dichotomy between self

(community, family) and other, unifying these opposites.

There is no choice to be made; we are all one family.

Participant #2

Participant #2 also initially reacted to a death in her family, and went through a similarly complete change of world view. This process took three years, from age 25 through age 27. She is now 33.

My father had an aneurysm and he died on his last business trip and he had always sworn that he would never retire. I felt very much like an adolescent in separation. The rebelling against...it never sort of occurred to me that he wouldn't always be there. What I got clearly when he died was that it had nothing to do with me. Yes. That was like one of the things that happened with the death, came the awareness that was his choice. That was his life. That he was totally separate from me in a way that I had never known before.

There was still part of me that had to prove, well, if I'm not a part of you, I still respect you. I still love you. You are still important to me and I'll prove it by changing my life around and where I said I would never work nine to five the whole time he was alive, I immediately moved into working nine to five. I want to go into consulting which was just what he was doing. I want to use my human services but in consulting like you did. And part of what was happening right after he died when I was being a consultant, when I was trying to follow in his footsteps, there was an old part of me that was really trying to hang on to the idea that I was not completely separate.

Most of what is clear is right after he died and what happened was that it was sort of like the darkness before the light.

I got to feeling completely immobilized. I got to feeling...I was very depressed. I was...nothing seemed right. Nothing was right. I was trying to prove...I felt as though I was trying to prove something and going through a period of real testing for what reason, was unclear to me then.

It got so that I was on anti-depressant medication but even on that I started to skip work and actually it came down to...like one day I was late for a work shop I was teaching and on that day I quit because I knew that I was going to be fired. I mean I was that non-functional and I was pregnant at the time and had to get an abortion and just everything in my life felt like it was falling apart. Losing my job and being for the first time in my life...not being responsible. I mean having truly come to face that I was not always a 100 per cent responsible person and that I

had gotten to a place in my life where I wasn't even being responsible in my job—a horrifying recognition.

And still there were moments that would happen for no apparent reason where I would just get a flash of, "God, isn't this perfect!" And I had never experienced that before—walking down the street, coming home from work one day, I just got a flash of "this is just perfect".

It happened shortly after he died; a couple of times while I was traveling and then living in New York. This is a two-year process we are talking about. Yes...with these flashes and the flash that happened in New York sort of connected with the other one. There was something happening in my mind trying to make sense of it that was saying, it is possible to feel this way. I don't have to feel this way. There is something that I can do to change that.

Things kept getting worse and getting worse and I just...at some point, I decided that something was going to have to shift and I moved without thinking about where I was moving to or what I was moving...just leaving. It was like going into the darkness because there was no where else to go. It was very scary. And it wasn't exciting yet. But I had to do it. I had to get out of there and things still kept getting worse.

I went and I was involved in a relationship and the relationship got intolerable and there was a night when the person I was involved with's child came and I had to leave because the child was going to be there and I had literally no place to go.

It was again...it was the whole question of connection and separateness. It was like nobody was responsible for me but me and even this person who was supposed to be caring about me and aware of my needs and taking care of me in this time of turmoil was abandoning me. So there was utter panic.

I went out and I stepped into more darkness. It was like I have no place to go. It felt as though something was moving me in that direction. It felt as though I had no choice otherwise I wouldn't have done it.

I called several people who I hadn't talked to in years and said could I sleep on your living room floor, whatever and it didn't...none of it worked. And I had to leave the house and I had no idea where I was going. So I went downtown...drove downtown Boston and I went to a women's bar with all my things in the car. I went to a women's bar never having been in one before and never even having picked up a man at a singles bar so not knowing anything about what I was doing. So it was a strong message. I mean I was like...it was the last push to. It was like, okay now she's a lesbian.

Well, I was drinking Jack Daniels and there was a woman who said, "all right, there's a woman who knows how to drink!" And so I talked to her and her lover who were there

as a couple and that was not threatening and then someone
asked me to dance. And as I was dancing with her I was just
totally focused on her and it was almost like this is my
mark (laugh). This is the person who is going to give me
someplace to stay tonight (laugh). I asked her if I could
go home with her. She was floored.

I think it was the part of me that knew on some level
that the universe would provide for me. I mean that
different level of trust in the universe. Because I went
out and I stepped into the middle of nothing and the
universe took care of me consistently. I needed a place to
stay and I asked and I found one and that was perfect. It
was short-term; it was just what I needed and whatever I
needed was there for me.

I wasn't doing anything that felt in character. I was
excited on some levels. It felt new. It felt...but it was
still scary. I was a little scared because I didn't know
what I was. So I was still...but I began to know what I
wasn't and there was a solid feeling about that.

The end result was that my world view has changed to
one in which I was able to trust in a new kind of way in the
universe and trust that the universe will bring me what I
need and that, well, I have always believed that there was a
purpose behind everything that happened. It's clearer what
that is now. I mean it is clearer that there is a
connection to me and that it is not some arbitrary thing.

I feel as though each of us creates our own universe.
I created my universe. I've chosen this lifetime, I've
chosen my circumstances to learn certain lessons and to move
along my path and you have chosen your lessons and you have
chosen your path and you are moving along your path. There
are going to be times when our paths meet and that's for you
to workout something and for me to workout something and I
have nothing to do with your path on any other level. I
mean there is no...we are still two separate beings. And I
think that overall that's what shifted when he died was
learning that.

It's a two-prong process. The first part looks like it
keeps going down, down, down because it is about getting
this recognition that something...that belief that you are
really connected with others is a lie and the turning point
where it goes up is where you get the second part which is
that you are really a part of everything else. So the first
part where it starts looking like it is going worse and
worse and worse and then when you get there you are separate
and then it switches. My whole experience of being a
separate being switched when I got that I was really part of
the greater universe.

Analysis of Interview #2

Participant #2 responded to the pivotal event of her father's death. This precipitated change because "it had never occurred to me that he wouldn't be there"--it required a radical redefinition of herself in relation to him. She names 5 chapters, the first of which is called "Devastation" and includes only her father's death, the first turning point. This chapter defines the theme, which is separation vs. connection, the polarity that permeates the process.

In the second chapter, "Emulation", she tries to reestablish status quo by becoming him; tries to reconnect with him, to deny separateness. The issue of separateness, however, also adds a very important new piece of information which later becomes a part of the new organization.

These attempts to re-establish equilibrium do not work, they drive her further from it and into depression, as the system continues to break apart. Nothing is working, her life begins to fall apart, until she is late for her own workshop, quits her job and has an abortion. She continues to try to regain equilibrium, taking anti-depressant medication.

The next chapter, "Rude Awakening", involves the realization that she is not "responsible"--her definition of self breaks down. This moment of realization is a turning point in the movement toward a new organization. It is a kind of surrender to "what is". After this point, in the

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midst of this chaos, she has flashes of something new, her sense of perfection of everything that is happening to her, which seems to come from nowhere, indicating that the system is sufficiently dismantled and new relationships are forming within it. This is an entirely new interpretation of the same experiences.

The downward spiral continues, however, during which her life progressively falls apart, she moves, her relationships fail, until the final night where she is thrown out "into the darkness". She calls this chapter "The Inevitable Leap". This is the transformation point. If she had not been able to change, she says: ". . .suicide comes to mind because there was no place else to go. Although I mean I wasn't actively suicidal but I couldn't have tolerated that level of terror. I might have had a nervous breakdown".

But she does change. First she gives in to it, feeling she has no choice, as though "something was moving me in that direction". She feels "a sense of total hopelessness about the way I had been living my life up to that moment. It was a total loss of belief in that system."

She goes out into the darkness and does things which are entirely new to her. She finds a place to stay by asking for it, and this becomes the significant information around which she reorganizes her world view. She also provides some other significant information for herself.

When asked what made it possible for her to change, she said
"an inkling that there was something else that I had picked
up along the way from (pause) various things to which I
hadn't paid much attention. Carlos Castanada to Jane
Roberts to anything along the way that I hadn't really been
involved with but had heard of". She combines these pieces
of information, previously stored but unused, into a world
view which is profoundly different and significant for her,
calling this chapter "Integration".

Her comparison of before and after is, like #1, framed
in terms of separateness and unity:

> So the first part where it starts looking like it
> is going worse and worse and worse and then when
> you get there you are separate and then it
> switches. My whole experience of being a separate
> being switched when I got that I was really part
> of the greater universe.

She resolves the polarity established in the beginning
with her father's death, finding a resolution in which
separateness and connection are not opposed. Separateness
is experienced differently after the change, as empowering
rather than terrifying, and connectedness is experienced as
being a part of the universe, rather than being centered
around individual people.

Participant #3

Participant #3 responded to the diagnosis of an
illness. The story takes place over the span of summer and
early fall this year, at the age of 41.

Before I was diagnosed, I remember being in a
conference about a month earlier and being a nervous wreck.
My friends were saying, just stop it, stop it. I was
really, very, very nervous.

At the end of July I had a medical checkup and it was
discovered that I had very high blood pressure. It's a
problem, obviously, to have high blood pressure, but not in
the way that I perceived it. I -- very soon I became very
obsessed by it and I really became, became my problem, and I
was terrified. I was terrified. I was like in a state of,
of, of shock. I was terrified and I wasn't sure of what,
whether it was of dying, terrified that I would have to take
drugs and then the drugs would -- terrified, terrified of
what was in front of me and having something out of control
in my life. And also feeling very guilty, starting blaming
yourself for having this problem, for being nervous, for,
you know -- for something, it was something that was my
fault.

And I went through a period of when I was very
depressed, I couldn't eat, I couldn't sleep for weeks on
end, just sleeping two hours a day, I was just like wire
inside. Umm, I remember I couldn't take care of my family
and my husband was here and he took care of business and I
was just like a slump of -- nothing that people would say
would -- I mean what people usually say, that it's OK,
what's so terrible, everybody has it -- it wouldn't affect
me. I couldn't think too much, I couldn't generate ideas. I
was just, I felt very hopeless. I would just lie down in
bed, I couldn't go out.

I remember just being in front of my husband at the
kitchen table and just crying I say, you know, I'll never be
happy again. And feeling -- I had never been depressed
before in my life or had an inkling what it really meant to
be depressed. It was summer, it was beginning of August,
beautiful days and I would go out and life would look gray
and dull and I just wanted to roll in the grass and shout,
and also was afraid of going crazy.

The idea of dying or just going crazy was, it was very
sad to me because there was so many things I wanted to do
with my family and my children, see them grow, do things
with B. later on. I guess it was the first time I had
realized that something -- that I was mortal and that
something really bad could happen to me, just like any other
mortal. And I guess I wasn't quite ready to face that. I

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have to face it. Maybe I had never seen it physically before....

I thought I had to do it all by myself with relaxation and diet and stuff, but it wasn't really making a big difference, and I couldn't relax, tell myself to relax, or will myself into having lower blood pressure, I couldn't. I remember I was walking the streets and seeing all these people, you know, all fat and nervous, and I said, Oh, they don't have the problem I have they don't have blood pressure, I should envy them, it was, I was really obsessed with it.

The [first] doctor had a terrible bedside manner so he freaked me out, the first thing he did was give me a drug without listening to me, or anything. I tell him, listen I'm sensitive, but he would... so after I took this drug my body really reacted, had depression, that's why I got so scared afterwards. Because I had some kind of depression, depression of the whole body and I was faint, and...

I went to a new doctor that was very nice, very understanding, and very calm, and he offered me a lot of hope. And he himself made me see a stress manager right there in his office, that he works with him, and I also went and see, started seeing a therapist. And in the space of a couple of weeks I could relax a little bit, and I -- but I think it was through the help of this nurturing environment that I could get out of it and see the light at the end of the tunnel.

And while I was in this depression I was saying, sort of joking to myself, if I get out -- if I don't become crazy and if I get out of this I'm going to be a better person and I'm going -- I had this feeling that if I could just get out of being stuck it would be, I would be a stronger and better person. I would really grow and learn a lot, because I felt the opportunity was there, because I could see how important certain things were for me.

I think it was gradual -- well, I would see R. [therapist], and coming out of there I would feel much better and much more hopeful, but then, I would feel a sense of fear and nausea and sick in my body, and that would make me feel trapped. Well, yeah, I guess after I saw R. really, because he -- he gave me a tape, a relaxing tape, and sort of one of his talks, and so whenever I was going a little bit off the edge I would just lie down and listen to the tape and.... Yeah, I guess both after I saw this new doctor and R. I had a little more trust. It wasn't sudden, but I guess it was in a period of maybe two or three weeks that that happened. I didn't have any sudden realizations that made me change to get me out of that, you know, being really stuck like that, but it's just that people were there for me.

There was a great nurturing environment. It was important to be able to talk to people, and, well, different

people did different things, but I think they all in one way or another, professionals or friends, what was important that they express a quality of kindness and compassion that I think pervades the world, really, it wasn't particular to them but it's just all over when you take your time and look at it. And I couldn't see. but they, they really put it out, and they touched me with that.

And then different people did different things. You know, my husband said I have an appointment with R., why don't you go? That sort of thing, you know. I know this guy I play baseball with, he's a good doctor, why don't you go to him [laughter]. I didn't know where to turn. The stress manager, for instance, made me see that I was really grieving for something, loss of illusion. And it was OK, and it was OK to go through, and it was OK also to cry, that I should cry, not -- I felt like I couldn't even cry because that would make my blood pressure go up. So she sort of gave me permission to do that and that really helped. And it helped me to talk when I was very depressed. It was important to talk because that would, you know, let me, try to articulate what I was feeling, to my husband, for example.

I discovered that I had taken everything so much for granted and, you know, waste so much of my time, just distracting my mind, and suddenly I said, jeez, if I could regain a certain clarity of mind I will be a different person, I would be a better person. And I think, indeed, that happened. That is what happened.

Now, looking back, I'm very grateful that it happened, because something had to happen in my life. The blood pressure's still high....And I'm taking drugs, but it's just that... I take care, I don't eat salt, and do all the things, take my medication, but it's just a thing that has happened and it has to be taken care of. But it's not -- I was an insomniac those days and now, you know, I'm back to sleeping perfectly. I can't understand why it was so terrible for me. And also I had to learn that things are not -- I mean, I cannot control everything about my life. And even if I eat well and I do all the right things, sometimes things happen. One has to accept it and go with them..

Analysis of Interview #3

Participant #3 recognized five chapters: Out of Control (June), The Diagnosis (July), The Great Descent (August), Ascent, and A Time of Relief (Fall).

The theme of this change is control. When she is in

control, she is in stress. When she is not in control, she experiences terror and fear of death.

She begins her story with a time of stress/overload, a kind of preview of things to come, but not, like some of the other stories, a preview of the new order. It is more a premonition of the coming disintegration. It is a time of dissonance leading to a turning point, which is reached in July, with the diagnosis. As such, it might be considered the disintegration phase of a separate process which ends at a transformation point, the diagnosis, after which she can no longer continue her lifestyle and her nervousness. This transformation point leads not to integration, but to disorganization.

The diagnosis is the pivotal event which provides the initial kick of the disintegration process. There follows a period of system-wide dissonance, during which she tries to maintain equilibrium by telling herself that she can manage her blood pressure with diet and exercise, and then reverts to earlier less integrated levels of functioning: terror, depression, lying in bed unable to function. Everything falls apart in her repertoire of coping skills, and other people take over. She surrenders to their guidance--the second doctor, the therapist, and her husband, reverting to a much earlier level of functioning.

When she goes to see the new doctor she begins the

process of integration, and begins to have glimpses of "the light at the end of the tunnel"--of integration.

In this story there is no transformation point, but there is a period of time during which things begin to shift: "both after I saw this new doctor and R., I had a little more trust. It wasn't sudden, but I guess it was in a period of maybe two or three weeks that that happened". The reorganization is gradual.

When asked what might have happened if she had not been able to change, she replied:

> I feel that maybe the fear and anxiety would
> have escalated, I would have become a really
> basket case, I would -- who knows? I wanted to go
> outside and roll and shout, and who knows, maybe
> somebody would have taken me to the hospital,
> given me drugs, and started this cycle of being
> more dependent....

Somehow she returns to life, but with a difference:

> Life suddenly now has this -- it's very
> bright and very sharp and just -- I just don't try
> to distract myself so much and just like waste my
> time. But I really enjoy it, I feel happy for
> everything I have, every little thing, and I have
> been able to enjoy my kids much more.

Her relationship to her illness is completely transformed:

> The blood pressure's still high....And I'm
> taking drugs, but it's just that... I take care, I
> don't eat salt, and do all the things, take my
> medication, but it's just a thing that has
> happened and it has to be taken care of.

She resolves the polarity, redefining control for herself in a new way. She is now able to accept relative

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control. She has stretched her concept of being in charge of her life to include things over which she has no control, and she no longer experiences terror of loss of control. In letting go of absolute control, she finds new appreciation for life.

<u>Participant #4</u>

Participant #4 also responded to the diagnosis of an
illness. Her story takes place over several years,
beginning at age 45, and extending into the present at age
53. Like #3, she experienced a recovery and transition
period with no major transformation point, during which her
life radically changed.

One time I almost drowned when I was twenty-seven. And
when the -- I almost drowned in the ocean. And when I was
pulled by the ocean, and I was just kind of going, you know,
upside down and water was going into my nose and my eyes and
my ears and everything, it was pretty horrible. I totally
panicked about death. And then when I let go and I said,
oh, so I'm going to die, this is it, I felt total peace and
total calm. And I was just ready to die. I didn't. And
the same experience happened when I, when I was in the 1976,
1976 earthquake, in my home. First I heard the noise and
the racket, and I said, oh, this is it, this is the end.
And it was a second of panic, and then I totally let go and
just stayed in my bed and, and I wasn't scared anymore, I
was perfect peace and calm. So it's just like our ego is so
scared of dying, because that's what we know about
ourselves. And once we kind of allow that fear to be there,
there comes, like, a very calm and peaceful situation. And
as I am here right now, I have the awareness that I will
freak out again when I have to confront death, and then calm
will come again.
    Well, first of all I didn't know I had cancer, neither
did my doctor. I was having some problems so I had a
hysterectomy, and when I had my hysterectomy this big tumor
was discovered in one of my ovaries. And it was just about
ready to burst, so -- the pathologist told me that if I had
waited fifteen days I wouldn't have made it, because it
would have spread all over my body.
    So it was kind of a shock when the doctor told me. I
was --I told him not to even mention it to my family, I had
to get myself together first and really face it before I
told anybody. So it took me about, maybe three days, to
really think about it before I told my family.
    And, umm, I was really very scared because cancer is a
very scary word. And though they said, oh, it's still in
time when we can do some prevention measures and I would
have some radiation and some chemotherapy just for

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prevention, that the chances were very good that I would not have a recurrence. Ah, it still didn't make any difference, I was very scared.

And, umm, though I had been on a, I would say, spiritual path or though I was spiritually oriented before the operation, my personality really got hooked in this and it was very hard for me not to be able to fight with the material world and death. And, ah, most of what effected me was the fact that my children were very young at that time. And I was very scared -- I think it wasn't death that scared me as much as the fact that I would leave my children alone, and, uh, with a somewhat irresponsible and immature father. So, it was very scary for me. Because of that more than anything else.

Another very fascinating thing that happened to me about a month after the operation was that I was looking out the window and I had a very deep existential experience of dying, fear of death.

It was just really -- in a sense it was almost experiencing -- it was almost in sort of a meditative state. I was totally alone and, uh, this is a big window, it's in Guatemala, in my home, and it faces this beautiful forest and the blue skies, and it's just kind of high, on top of a very incredible view of the world. And as I was looking at it it was just like that was my world as I knew it, and here I was as I knew myself, and when I died it would be totally different and I would not have my mind as I have it, I would not think as I think, I would just not be as I thought I was. Whatever that would be. And I did get a sense of, of another experience after life, but it's -- it was just like totally not personal. It was just like I wouldn't be an individual anymore as such, but I would be just -- I would lose my who I think I am, my ego. So it was just like a experiential way of looking at what I'd been reading in spiritual books.

And that was the closest thing I've ever gotten to realizing I'm going to lose my consciousness and who I think I am totally. And it was a very overwhelming experience. And I decided to just go with it. What I tried throughout all this experience was to just be with my fear. I never tried to take my fear away, and I would just go into my fear anytime I had one of my fear attacks. So it was very intense, but as I just allowed myself to live my fear started getting less and less powerful. It was just, like, there I was with my fear. And it would come and go.

And, umm, what was interesting was that while I -- well, time went on, I just took a lot of time to meditate, a lot of time to pray, a lot of time to just think about what it was like to be alive and dead. And look at that as much as I could, find out as much as I could, read a lot. And, uh, and I started finding that the more I would get in touch with the fact that I probably would die soon, the more I

started experiencing living fully, more fully in the present. So that -- I think that was the positive side of it, though at the time I didn't think it was so positive. Umm, I also got involved in many activities and many things I wanted to get done in case I didn't have that much time. So it was very intense, it was a very intense period. And what I spent a lot of my time doing, was what will I do if I have cancer again? What is my choice going to be? And my choice was at that time -- and I don't know what would happen now, but at that point was that I would not have another operation, I would not have radiation, I would not have chemotherapy, and I would just....because I felt that if my body had cancer again it was because I was ready to drop it. So I really tried to make that choice as conscious as I would so I would be ready for it. And at some point I remember--well, every time I had any symptom of anything I would say, it's cancer again. Even if it was in another part of my body, which seems to be very common for cancer patients.

And I remember one time I was having some digestive problems that lasted for a very long time, and my doctor finally agreed to do -- what do you call that thing? -- sound, ultrasound exam. And the first ultrasound exam didn't come out clear. And I got a call from my doctor saying that I may have a lesion, I may have cancer, and he would have to repeat the exam again.

That was, uh, four years afterwards. And I remember that night, I did not freak out. It was very surprising I did not. I said, OK, so I have it again. I was just totally surprised about how, how calm I was about it. But then it came out clear after I had the second test, so it was very interesting.

Anyways, umm, what has happened through all this is that I've taken -- I've done several workshops on death and dying, both teaching and taking them, since that operation, and dealing with illness. And I have found that every time I remind myself of my death I get in touch with my quality of life much more strongly, I appreciate my life and what I have much more, I change my perspective about problems and issues. I really think the quality of my life improved, and what really improved more than anything, I think, was my relationship to people and to myself.

Before that I would not cry in front of people. I would not be emotional, I had to be very controlled and very cool and collected. I had been very careful not to express myself in front of people I didn't know particularly. Just like very close people I would express myself. And I would also -- I was very closed, I would never share my pain or my suffering or anything before my cancer.

And once I had the cancer I said, I am not going to ever again repress what I'm feeling, I'm just going to express exactly what's true for me. And I want to cry when

I feel like crying, and I'm going to laugh when I feel like laughing, and I want tell people I love them when I love them. Now I can really accept my emotions as part of who I am.

And I would scare my friends off a little bit at the beginning because I would go up to someone and say I've never told you how much I love you. [Laughter] I worked for a very incredible man for about fifteen years in Guatemala. He's one of the most meaningful people in my life and I had never really shared with him about how, how really important the experience was working with him and what a wonderful person he is. He's a very shy man. And here I come bursting and telling him what a beautiful person he is and how I appreciate him and how much I love him and how....

He just blushed and blushed and blushed. And it was, it was very interesting. It was really very funny. People don't expect that.

When you're confronting a very serious illness, all the little itty-bitty personality problems totally lose their energy or their force. They become totally unimportant, and you're just facing like real existential issues. And, and it just kind of changes your whole perspective. You don't get caught up in little things anymore. It's just like all these little things drop away and you're just confronted with your existence, and the people you love and what you care for and what's meaningful for you and what your values are. And I think that's a very enriching experience. I find it very expansive.

However, what I have found is that as I go through my life day by day I kind of forget this, and I need to remind myself so many times. I just go into reading my books on death or taking workshops about death or even reviewing papers I've written on death and dying, so that I'll get in touch with that perspective again, which I find very, very enriching in my life. And, uh, and I -- as I confront death, I live more fully. And I give value to things that really are valuable to me, and I prioritize in a much more clear way than when I'm just caught up in my everyday little stuff.

Analysis of Interview #4

This participant experienced previews of her process of change in her life before her illness, an indication of the potential for this reorganization.

The theme of this transformation is her relationship to life and death.

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She names four chapters and an operating principle
which was present throughout. The first chapter is "Shock",
and includes the operation, diagnosis and her initial
reaction. The second chapter is "Getting Hold of Myself",
composing herself before she tells her family. The
operating principle, initially presented as chapter three,
is called "Doing the Best I Can Under the Circumstances",
and describes the state of mind with which she approached
this process. The third chapter is called "Confronting
Reality", in which she allows herself to fully experience
what is happening to her. The last chapter is "Getting on
With my Life", which continues into the present.

The first pivotal event is, of course, the discovery
that she has cancer. This throws the system into chaos
initially, and it is possible that her desire to keep it
from her family at first is an attempt to regain equilibrium
by artificially stabilizing for a short time.

She mentions that it was hard not to fight it, but
seems to have worked toward moving into a stage of
surrender, as a result of her previous experiences. There
is polarization there, but she consciously works to try to
balance it, allowing herself to experience the fear rather
than running from it.

In the long chapter on confronting reality (and death)
the major theme is moving toward acceptance of death which
frees her to appreciate life. This stage is launched in

full by the experience at the window soon after her operation. This experience seems pivotal. It appears to have been an experience of death accompanied by overwhelming fear, which she decides to experience fully. It seems to be an escalation of the situation, the initial kick of a positive feedback loop which she describes thus: "the more I would get in touch with the fact that I probably would die soon, the more I started experiencing living fully, more fully in the present." It is that moment when she begins to confront death directly, to face the darkness because it is not possible to run from it.

When asked what would have happened if she had not been able to change, she said:

> One of the things that could have happened was that I would have gone into major depression but I didn't. I could have just let it slide by and not keep on working on myself and go back to, to a more unaware existence, let's say.

She gradually comes to appreciate her life and to radically change her way of relating to other people. There is no point of transformation, nor is it clear from what the new organization is constructed, but it is clear that her orientation is in fact transformed.

> I live more fully. And I give value to things that really are valuable to me, and I prioritize in a much more clear way than when I'm just caught up in my everyday little stuff. . . . Once I had the cancer I said, I am not going to ever again repress what I'm feeling, I'm just going to express exactly what's true for me.

She resolves the polarity of life/death in a new way, moving from her fear and fighting of death, to a realization that knowledge of death enhances her life, and the acceptance of its inevitability.

Participant #5

Participant #5 also responds to physical crisis. This story is interesting because of the punch line. She experiences physical difficulty for two years, ages 30-31, and only later learns that it was the result of an event much earlier in her life, at age 17. At the time of the interview, she is 32.

Well, the events leading up to that point of transformation was about a year and a half to two years of a really stressful time in my life.

I had just graduated from graduate school, I got my master's degree, and then that fall my mother went into the hospital for cardiac surgery and there was a lot of complications with that. My grandmother died, then my sister-in-law's mother died, and the baby was born, and there was all these things going on, and the -- you know, I just felt so -- literally, just so stressed out. And then that spring I started running, because I didn't know what else to do, and I got hooked on that and really wore myself into the ground. And a year after my mother's surgery I said, I've given you a year's time from me, you're on your own, it's time for me to move, because I had already purchased a house and was just helping her.

Exactly two weeks after I moved into my house I came down with what felt like the flu. I had, like, just horrendous fatigue, body aches, chills with no temperature, just running hot and cold, and just feeling really lousy and just horrendous, and I noticed that there was a lot of things bothering me, like my gas stove and a few other things, and it seemed like I was starting to get real sensitive to some foods.

And I got through that initial acute period of time and I found out shortly that I was really, really, anemic. I hadn't been eating red meat and I was running really hard, and evidently that was connected. So I got that put back together and I felt still really lousy and I was, started getting into some really compulsive food-eating behaviors and this kind of stuff, which was really unusual for me.

And about December I was referred to an endocrinologist, because I was having severe blood sugar problems and mood swings and all this stuff, and it just seemed like whatever I ate was making me sick. And, umm, it was just such a lousy physical experience for me, the whole thing. It just wasn't getting better and nobody -- like, the endocrinologist worked me up and did every test in the

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book and it was all in my head, couldn't find anything wrong with me. And I got disgusted with that.

And at that point in time I also put on a lot of weight and started menstruating again -- I had not been menstruating -- so it was like a lot of hormone changes and just a lot of stuff going on physically. And, uh, the endocrinologist wanted me to see a psychiatrist and I said no. I said there's something wrong here, I said, it's not in my head. I went to a PMS clinic to see if that would help, and that was a waste of my time.

Then I got into a stress reduction program, at the medical school, and it was sort of like first inkling that, yes, I was sick but there was something else going on too, because within the first session we were taught insight meditation, which is focusing on breathing, and at the end of that class I had this strange feeling and said, why do I have to learn how to focus on my breathing, doesn't everybody do that anyway? You know, it wasn't anything strange to me, like I do that all the time. I said, so, OK, if you want me to do that, I'll do that, you know. [laugh] And it was just so easy for me to do that because, like I say, I had been doing it as long as I could remember. But I didn't know that that's what it was that I was doing. And all of a sudden, you know, like someone gave me permission that it was OK to do what I had been doing.

And then I got really -- really tuned in to the yoga and really did some major steps on personal work as far as guilt and, you know, the perfect person, and working through that kind of stuff.

But at the end of the program, I said this has really done a lot for me, I feel much better I said, but I'm still having a hell of a time with food. I said everything I eat makes me -- gives me some kind of symptom.

So, umm, S. -- he's the one that was my teacher -- referred me to R. R. down in B_____ and it's like I came out of a very left-brain, clinically specialized medical school into a holistic physician's office, and I was scared, I said, I'm going to tell him all about this stuff and he's going to tell me it's all in my head, right?

So I went with that sort of attitude, and it was such a major change for me, because he just talked to me for an hour the first time and I sort of had this list of symptoms, and I said --and I went through them, and he said, what else, what else, and I'd tell him some more stuff, and he said, fine, he said, we can fix that. And it was like -- it was just such a, such a relief to me. You know, like someone listened to what I had to say, did not create it was in my head, and then gave me some hope that, yeah, you are sick and, yes, we can get out of that.

So, we started me with nutrition supplements and everything else, and what I was really fighting with was called Candida Immune Disregulation Syndrome. So there had

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been a major imbalance related to all the stressful events, which was -- it fit, and the allergies were a result of that and all the other imbalances and the nutritional imbalances. So we worked with that. Changed -- radically changed my diet, and that was a big struggle. Went on Nystatin and stayed on that for a year and a half, and just continued working with like advanced stress reduction programs and just really deepening my practices that way.

And through that time I just started getting a whole different perspective on what I'm here for, my purpose, my -- you know, why am I here. And the driving force became, well, if the stress reduction program meant that much to me, the meditation and yoga, I would like to do that for someone else. You know, it had radically changed my life, I want someone else to experience it the way that I had. So that became my focus. How do I teach meditation? How do I teach yoga?

So I just started doing some workshops and stuff like that, and then I made the decision to do the yoga teacher's training at _____.

And while I was at yoga teacher's training -- I was there not so much to learn how to teach, but I went there to heal. I said by the end of the month I want to be healthy again, because this is the first time I've been out of the environments that are bothering me, my house and my lab and stuff.

And about a week after, into the training, Nakul, who is my homeopath now, sort of stepped into my life. He started lecturing, he did the anatomy of physiology lectures for us. I said, I don't know what it is, but he's got something that I need. I just had this felt sense and, I said, I've tried everything else, what have I got to lose.

So I went to see him, and I said, I'm really skeptical about this, and I said -- you know, I told him the whole process. I said, I've been through the specialists, I've been through the holistic physician, and I said I've done everything I can, I feel a lot better I said, but there's something I can't let go of that's keeping me from getting rid of the yeast and I just can't -- I said, I just can't let go of it. Something's missing that I have no control over, you know. So it's just like on a level that I just can't connect with.

So we interviewed, and he asked me, he said, "When was the last time you felt healthy. When was the last time you felt well?" And I said, November 4, 1972.

And I said that was the time when I had the skull--fell off the horse and had the skull fracture, I said. I was a very vibrant, vigorous, healthy seventeen-year-old and I've never been -- I've never felt well since. And then, you know, it's just this low-grade unwellness that I've felt all of my life, and then it really got bad when the yeast thing

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got going. And I said, you know, I've done everything I can and, I said, you know, what have you got to offer me.

So he did two things for me. He gave me a remedy to treat the head injury, which -- that was what he felt needed to be worked on. The other thing was he taught me how to body dialogue, how to left-brain bypass myself and get connected with what was going on inside and asking my body what it really needs. And that was a tremendous experience.

And within about 48 hours after I took the remedy, things just -- I literally felt like someone reconnected circuits on the inside. It's like rapidly -- and it wasn't just one circuit, it was like one went off and it was like a domino effect, like everything just kept lining up. And it was just like an incredible experience.

And I saw him like a couple days after he gave me the remedy, and we had this sort of meditative experience together, and during that time it was like I reconnected with like the universe, I mean it was like a moment where it was so intense and so deep and so together and it was like -- it's written in my journal it was like this was the day that I came home.

And I said, but I've been doing that all my life, what I consider all my life. I said, I'm already there. - like that was the framework that I came, reconnected on this planet after my head injury. I just felt so different. I said, like, I am not the same person I was before, and felt so out of place, and like no one even had any kind of a grasp of what I was feeling or anything. And it was such an intense awareness, and it was -- I was just like living in the moment and it was just such a wonderful, wonderful place to be in. The thing that comes to mind is wholeness. Just a feeling of being so connected with everything, like, not only body, but, you know, the trees, the furniture, everything. I mean, just being connected with everything. That I'm a part of all of it.

Like this was like a totally different state of consciousness than I had ever experienced before, and it wasn't until, you know, the healing had occurred that I appreciated where I landed, you know, after the head injury. That I'd got a much clearer perspective on my awareness and how I see the world and how I fit in on it, and why I feel so uncomfortable just in normal, everyday living. That stresses are very stressful for me, and it's because I sort of function on a different plane, and sort of a different wavelength. It was just like I continually butted up against the fact that that's not where everybody else was. So I lost it. Like, keep it in the closet, don't talk to anybody about this stuff.

I owned it. That was it, that's exactly it. I owned it. I mean it became part of me and I was like, yeah, yeah, I understand it now. It's like it makes sense and it's OK to be where I am right now, and to work with it and do

something with it. I mean, it's here for a reason, and, uh, like I said, it felt like the day I came home.

I think the place that I'm trying to get home to is the state of existence after death. I mean, I experienced it then. You know, I spent some time there. I don't know how long, but I spent some time there and it's like, I'll stay here forever. You know, that's where I wanted to be, and then when I came -- like reconnected to my body, to this planet, I really -- I experienced -- I really know that I had really a sense of longing, that I didn't know what it was at the time because I didn't understand it. But it was a sadness, the fact that I had lost, lost that. It was that homesickness, it's that being drawn to this vague thing that I wanted to get to. I mean, it was this intense, internal longing to get back to that place that I had been to.

And realize that, that all the events that unfolded for me, like the brief encounters with the meditation and some of the encounters that I had with yoga that were sort of giving me a taste of, yeah, your head is in the right direction, you're getting closer to home, and that whatever you're doing, it's like, it's accelerated, you're going there faster now, you're more on the track.

And now, I'm still, you know, working with the homeopath and trying to sort of resolve some residual allergy-type things, and we still have, we both have a strong sense that they are connected to things that are buried about the accident. We sort of have the idea that the allergies and sensitivities are sort of like my body's just rejecting the world as it is. Still working through that. Also gives me a lot of potential for things to work on consciously. So that's sort of exciting for me to do.

Analysis of Interview #5

The theme of this transformation is the dichotomy

between everyday consciousness and consciousness of a larger

connection to the universe, which is perceived during most

of the story as a conflict between sickness and health.

In the story, the initial incident is the accident at

age 17, when she is thrown from the horse. Her experience,

at the time that the story begins, however, is that her

health inexplicably degenerates, perhaps as a result of

several stressful incidents, and the main part of the story

is devoted to her attempts to regain equilibrium. She continues to look for medical relief, and continues to encounter medical problems, although several things (yoga, meditation) are very helpful as significant information: "There were so many things overlapping. As one layer peeled off I'd find a new one, so it was just this continual flow". These attempts accomplish only first order change, change within the parameters of the system, however, and nothing really changes.

At last she discovers the homeopath, and the transformation occurs in two stages, the first being the remedy:

> And within about 48 hours after I took the remedy, things just -- I literally felt like someone reconnected circuits on the inside. It's like rapidly -- and it wasn't just one circuit, it was like one went off and it was like a domino effect, like everything just kept lining up.

The second stage is the meditation with Nakul, during which she reconnects with:

> a feeling of being so connected with everything, like, not only body, but, you know, the trees, the furniture, everything. I mean, just being connected with everything. That I'm a part of all of it.

She recognizes then that this is the state that she found herself in after her accident but had had to "keep it in the closet, don't talk to anybody about this stuff" and had forgotten it. It appeared that she had returned to her previous equilibrium, but this was not really the case. She

sees in retrospect that her struggles to function in college and in her career were related to the accident.

Her state of being immediately following the accident is a situation the requires that she change far beyond the parameters of her 17 year old system. This moment could have been a time of simultaneous disintegration and transformation, but she could not encompass the change. Her state of being immediately after the accident could be considered to be a piece of significant information that only became useful and significant later on, after the long process of disintegration and learning. Instead of reorganizing at this time, she tries to return to the previous equilibrium, and seems to succeed, but at great cost in the long run. The attempt to regain the status quo ultimately drives her to the transformation.

The second pivotal event, the homeopathic remedy, initiates the final transformation, where she finally reorganizes around the new information, in a fairly dramatic way. This system is definitely prepared for the change, having worked for years toward that end.

When asked what might have happened if she had not been able to change, she said:

> I think I'd be really miserable. I think it would
> have gotten worse. I would have just driven--
> rather than being open to all new healing
> processes and whatever would work, you know,
> willing to give it a try, I think I would just
> probably gotten stuck in the endocrinologist's
> diagnosis where it's all in your head, go see a
> psychiatrist, there's nothing we can do for you. .

. .I think it would have just closed me off from the real world entirely. I think it would have just really boxed me in.

When she was asked to formulate the difference between before and after the transformation, she spoke of the period before the homeopathic remedy as characterized by "detachment", and of the period afterwards as characterized by "wholeness". The conflict between sickness and health is seen in an entirely new light, as a symptom of an altered state of consciousness. She is resolving the dichotomy of the two kinds of consciousness as she works toward integrating her state of consciousness after the accident into her present life.

Although her story originally begins with the medical problems, and then expands to include the accident, when asked to divide it into chapters she included most of her life as relevant to the story. She named seven chapters: 1. Growing Up, 2. High School (healthy, directed), 3. The Head Injury, 4. College (struggle to function), 5. Medical research Career, 6. Medical Problems, and 7. Transformation/Coming Home.

Participant #6

Participant #6 experienced a turning point with a long
and difficult aftermath, culminating in a morphogenetic
change without any noticeable transformation point. The
initial event occurred at age 20. She is now 38.

It's interesting that it happens in Amherst,
Massachusetts, when I was a student at U Mass in 1969-70. I
went through a period of slow growth for about a year, when
I had sexual relations for the first time, and I was exposed
to the school of education at UMass, which was offering
courses called like the Education of the Self and Strength
Training. So I was exposed to looking at myself for the
first time in my life. And I liked that a lot. Umm, so,
what happened was that in my senior year of college I, uh,
had, uh -- I felt my consciousness changing slowly. I
didn't experience my emotions very much. I just started to,
but generally speaking I was a head person. I learned
primarily from books.
I got involved with a man who I thought that I was in
love with, and it turned out that he was somewhat abusive to
me and he was quite disturbed, and after three months, like
-- all my fancies came out of wanting to be married and
having children. And at that point in my life -- I had
lived a sheltered life and, you know, I hadn't really lived
it yet, so all of these fantasies came out and I projected
them all onto him. And, ah, at any rate he let me know very
clearly that he didn't want to have anything to do with it,
after three months. And he tried to rape me one night.
This change accelerated and intensified the next morning,
from that point on.
He left, after that incident, and there I was alone in
my apartment in Amherst. And, um, I didn't -- I was in my
senior year, I had no career plans, I was doing very poorly
in my student teaching. Umm, my friends were all getting
married or going to graduate school, like they had all plans
-- all had plans. I didn't feel close to my family. And
there was I was sitting alone, these dreams had suddenly
burst.
I started to feel two different kinds of feelings. On
the one hand I felt great anxiety and fear, and I started
not to be able to sleep at night and sleeping during the day
instead. And, uh, strange feelings in my back, you know.
Very scary. And also a lot of anger came through that I had
never felt before, because of his betrayal -- or how -- I
looked at it that way. I remember I spent one morning
throwing every book that I had against my bedroom wall. And
I just -- I had never really let myself experience that

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before. Um, and, um -- so as a result of these things I started also to have a lot of feeling memories of what it had been like being a child. Things that I had not, that I had blocked out for years.

And, at the same time, I started to feel intense joy, not at -- you know, like at a different point in the day or a different point in the week. Like, I would look outside and see the trees and the birds and I just -- I felt like I had never seen them before, that was the feeling that I had.

Um, so I went through a couple of weeks of this kind of alternating, and then I felt that I shouldn't stay in Amherst anymore, because I didn't want to be in school and I didn't want to be in a place where he might come back -- I was afraid that he might come back. And I, uh, I don't know, I just wanted to leave. So I did, and I went -- I, uh, now -- I didn't want to go live with my parents, because first of all these feelings about them had come up, and I could hardly deal with them, and second of all I didn't think they would be helpful. Because in themselves they would be scared, they wouldn't know or understand what was going on with me.

So what I did was one day I decided to leave, I called my mother, and then I called this aunt who I always cared a lot about in New York state. And I called my mother, I said I'm going to visit Aunt Ann tomorrow morning, I want you to come get me in Amherst and take my things and drive me to the airport, you know. Without, hey, you know, and -- so I did, she did. And I flew, you know, away, and I was at my aunt's house.

Now, there was a period of time there, before, like -- my uncle, her husband, is a doctor. And he wanted me to see a psychiatrist. So I did, and the psychiatrist put me on medication, and that started a whole new thing. I was afraid of the man, I felt like I had to get away from him. And it left me with great emotional damage, that there were not really terrific resources to handle, because the psychiatrist's approach was to put me on anti-psychotic medication and make -- it made me into an invalid for a few months.

However, before that happened I had time to be with myself, and a couple of things happened that I think you'd be particularly interested in. One of them was that -- like, prior to that time I really didn't know what I wanted to do for a profession. I had some thoughts about being an English, high school teacher, because that's one of the few professions that I knew about. And -- but that hadn't worked.

I had some thoughts about being a librarian because, again, I frequented libraries as a child, but, like, sitting in my aunt's house a few days later all of a sudden I knew that I was going to become a social worker. It was just

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like that. I had hardly even had any contact with social workers before.

And because I felt -- what I said to myself was that first of all, if I ever felt well again, and I wasn't sure at that point that I would because I didn't know what was happening to me, that if I ever felt well again I was going to turn around and try to help people who had found themselves in similar positions. And, uh, so that was one vow that I made to myself. And I felt so strongly about it that I even took a bus three hours away to another strange city in New York state, when I was still in this condition, and took a state civil service exam to be a social worker. And I took the bus back the next day and, uh, you know, I passed it. I mean, but that to me was extraordinary that I would do that during this crisis period.

I went home to live after a while. And then I got -- I worked as a volunteer on a crisis hot-line, which took -- since I was barely out of crisis myself. But I knew that I wanted to go into social work and I needed experience. Then a couple of years later I got a job with the state welfare department, and then I got a job as a Vista volunteer, and then I worked in community relations, and then I was accepted into the school of social work, and then I got my job that I've had for seven years. So that's one strand in it that I've -- I've carried it right through, you know?

There's another strand that's very important. It's that -- that morning that I woke up in Amherst, after that man had left, that I was totally devastated, I picked up a book that was lying in my -- I don't know, maybe it was on the floor by that time, and it was a book I had bought a couple of months earlier and had never read. And I didn't know anything about the subject, but it was a book about yoga. It was called Vedanta for the Western World by Christopher Isherwood. And I, I had bought it on impulse, because I had heard people talking about yoga and I didn't know what it was. So I said, humm, I'd better find out, I don't like to feel like I don't know anything.

So I started reading it, and there were essays in there, one of them was called "How to Control the Subconscious Mind," and there were a few others on the same topic. And what it said to -- what the article said was that when someone of a, like, a higher moral and ethical nature does something that goes against their values, it creates great turmoil in their minds. You know, the contents of the subconscious mind that formerly were just lying in darkness start to come up and they start swirling, you know, and sometimes the movement becomes uncontrollable, and that's what disturbance is.

It also offered some remedies. Like it said what they recommended for someone in that condition was first of all, you know, not to do anything else that went against who they were morally and ethically. And also they recommended a

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vegetarian diet and getting up early in the morning to meditate, you know. I just was starting to learn a little bit about yoga. And, so, -- this was, let's say it was coincidentally, that I started waking up very early in the morning, like four o'clock in the morning, which I had not done before. I was real scared at that time, and I took whatever type of resource was available and I held on to it.

As soon as I got back with my, living with my parents, in addition to seeing a psychiatrist and being on anti-psychotic drugs I started taking yoga classes. And I did yoga -- here I was, living with them, I wasn't working because of the drugs, I was just hanging around. But I did yoga every single morning and it gave me something to be interested in, in addition to the validation of some of the things that were happening to me that a Western-trained medical person would never, ever give me any validation for. Such as becoming a vegetarian all of a sudden, uh -- so in that way I avoided a little bit of the invalidation that was coming my way. And I, I've been doing yoga ever since. I still do it almost every morning. And, uh, six years, seven years ago I trained to become a certified yoga teacher, so I'm also a certified yoga teacher.

I don't want to continue this work as an administrator for the rest of my life. I want to get back -- I want to connect being a therapist with my teaching of yoga postures and yoga deep relaxation, so that I can give private sessions to people connecting it with yoga postures and getting -- accessing their deeper material through yoga deep relaxation.

I learned primarily from books, and after that I didn't want to learn from books at all, I wanted to learn by doing. And that still continues, you know, to this day. My style, my mode of learning changed. And, uh, well, I started to --
I don't know, I think I felt more alive afterwards, and more aware of beauty. It's interesting that before this happened I was an English Lit major, and I read a lot of novels, but after this experience it's very rare for me to be attracted to reading a novel now. I've almost lost my ability to read them, almost. Except for a few here and there, and I think the reason is I'm living my life in such a real, intense way.

And also I had this realization that because of that experience I had what I called a margin of freedom inside of me. I had discovered that I could make my life the way I wanted it to be. That, like -- prior to that I guess it was mostly social conditioned, but I realized that I wasn't a social conditioned being anymore. Um, that, you know, I could fashion my own life. And, uh, so those are the two, probably the two most important insights I had, I've had in my whole life. Because I've been living off of them ever since. Everything that has happened to me since is just a

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further development of what I realized about myself, uh, you know, at that time.

I experienced the high, you know -- by going deeply into the shit I experienced the beauty of life too, and they were like, equal.

Analysis of Interview #6

Participant #6 marks the story as beginning with a process of changing consciousness when she went to college. This seems to be a natural process of growth until she meets the man, and the relationship turns bad as well as evoking her desires for marriage and children. She calls this chapter "The Build Up". Then the incident with her boyfriend happens, which is the pivotal event which begins the process of disintegration: "This change accelerated and intensified the next morning, from that point on". She feels that everything has fallen apart: " And there was I was sitting alone, these dreams had suddenly burst". She suddenly has no purpose, no plans. This chapter is called "The Crisis". The theme of the transformation is finding a direction for her life.

At this point she responds in two ways. She feels fear anxiety and anger, and begins to recall feelings from her early childhood, reverting back to an earlier level.

She also feels intense joy, and sees things as though she had never seen them before--a preview of the intensity of experience which characterized the change, an indication of the direction of reorganization.

Her next chapter, "Shifting Around and Trying to Come to Terms with It" involves a lot of attempts to return to equilibrium. She calls her mother, visits her Aunt and goes to the psychiatrist. The turning point at which she begins to move toward integration comes on the day when she is sitting at her aunt's house and " all of a sudden I knew that I was going to become a social worker. It was just like that". She acts on this knowledge by taking the civic service exam.

When she goes back to live with her parents, starts doing yoga, making use of a piece of significant information which she had picked up on the night of the incident with her boyfriend: the book on yoga. This forms into a new organizing principle, creating some meaning in the process that she is going through and some validation for her perceptions, and later threading into her professional plans. She eventually gets a job on a hot-line she begins to integrate what she has learned through the crisis. This chapter is called "Settling Down and Stabilizing". The next chapter, "Independent Growth", takes her into the present, and out of her parents' house. These two chapters represent the process of establishing the new equilibrium.

When asked what might have happened if she could not change, she replied: "Well, I guess I thought I'd just be living with relatives or with my parents for the rest of my

life", i.e. continue with an earlier, less complex and integrated mode of functioning.

She frames the difference between before and after in terms of social conditioning vs. freedom and intellect vs. experience.

Participant #7

Participant #7 experienced a period of dissonance
before the official beginning of the story. Like several of
the other stories, this story does not include a definitive
transformation point, although there are several turning
points and a long recovery. The story took place over six
years, between the ages of 31 and 36. She is now 41.

So we -- at the time when this all happened, we were
building a house together, which was our house, and our
second child came along, who was T., and things started
changing at that time, when he came along.   There were a
lot of tensions beginning to build up.
     Deciding to have another, a second child was pretty
hard. I didn't really -- I hadn't decided to have a second
child when I got pregnant, with T. And it was partly
because I didn't feel like we were physically set up for
another child yet. We were in this teeny cabin. I had sort
of thought, well, in a couple of years from now, because we
had started building this bigger house for ourselves on this
piece of land, but it wasn't going to be finished.
Especially for that winter. Well, you know, he was born in
August, and so the winter of discontent [laugh] came along.
     I remember B. actually shoving me on the -- you know,
throwing things at me, and throwing me on the bed, and there
was a lot of tension. It was awful. He was incredibly
frustrated from being so locked in to that little place.
And I was kind of like stuck in the middle between him and
T., who was just a miserable baby.
     And the other thing that was happening was that I was
becoming very interested in feminism and finding that I
hadn't been expressing myself in the ways that I wanted to
be, uh, which started to kind of shift the -- what I see as
kind of the roles and power issues started shifting when I
started noticing that I was being less in my own power than
I wanted to be.
     And I think those two things really contributed a lot
to my husband not wanting to be with me anymore, which
eventually -- it sort of happened what I thought was quite
sudden, although when I look back on it, it seemed like it
was probably building up to his needing to be away from me,
which is the way I guess I put it. His needing to be on his
own and not living with me. And that was his way of dealing
with what he saw as a problem between us.
     And that spring I actually was at my wits end, and
that's when I -- it was either going to go to my women's

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group, which really wasn't serving me anymore, or I had heard about this co-counseling group that was starting, and it was centered on parenting. And that's -- I even remember, in the road I could have gone to the left or the right and I went to the right and I went to that meeting. B. started doing co-counseling too, we were both doing it, and we started doing couples counseling with two other couples, which was -- it was really good. But it also opened up a lot of issues that -- you know, as I look at maybe it would have been better to open up those issues in some other way I suppose, but that's the way it happened.

[Note from critique of the profile: the real story begins here]

And what -- at that point he also became involved in, with my brother's, my brother's fiance -- they were actually pretty much engaged. It wasn't really official, but they were going to get married. But it was out -- it was like -- he'd been involved with other friends of mine actually, just briefly. And that was all pretty secretive. This was not secretive. This was sort of like this is what's happening to us and we don't know what to do about it, but we need to tell you. I came home one evening and [they] were together, and I knew from the vibes in the air that there was something happening. Well, I always can pick up on that stuff anyway, and they, they continued to get closer and closer as the winter went on and I --it just got, it got really, really hard by January for me, because it was obvious that he was in love with both of us at that point. And...
We were toying with the idea that maybe we could have -- I mean, maybe we can have an open marriage and maybe we can continue on. You know, it won't be exactly the same but I was willing to -- I wanted to stay with him, and I wanted to, uh, try it, you know. Of course you can be in love with more than one person. But this was -- it got way out of balance, and I was very upset, very jealous, and, uh -- and just to put in what else was going on is I got pregnant and had an abortion that winter too....
Just incredible what was going on for me. I was way off center, physically, emotionally, everything. It was so overwhelming that I had to just say this must be part of a much bigger picture. I mean, it -- especially with my brother being -- it was almost karmic to me. They were our neighbors, they were our closest neighbors, and we lived kind of out in the sticks, and so it was just such a set up. There we were, all drawn together in this drama, and it kind of -- I had to -- in order for me to deal with it that's one thing that I did, I stepped back away from it.
It's almost like creating this aerial, airplane view of the whole thing and saying there's something larger than

myself going on here. And I -- it may be a rationalization. I mean, it sounds like it when I talk about it a little bit, but it has, it actually led me to a place where I could accept it better. I didn't feel that I could fight it. It just didn't seem like there was, that was a way to deal with the situation. I mean, I guess standing up for myself is one phrase that comes up for me, but I'm not one in the past to stand up for myself real strongly and I noticed that I wasn't in that situation either. But I really didn't see how. What good is it going to do? I mean, because it was like the karmic ball was already rolling and.... I needed to just let go.

It was a huge lesson in letting go. I felt similar to the fire, the house burning down, but this was like yet another lesson in letting go and a much bigger one, because all my dreams -- it was like this house we were building and the land we lived on, we worked together, we had this business building, you know, the children, the whole community,

A counselor that I was seeing helped me -- I came to this myself, I remember saying this is like a death. Uh, that was during that winter. And when -- as soon as I realized that it was like dying I felt this great sense of relief. Like the grieving -- it gave me permission to grieve as much as I really felt like grieving. I mean, I'd already been grieving a lot, but it felt like I could really dip down.... And from there the obvious next thing is to talk about, well, what happens after you die. Well, I was reborn. And the idea came from, I think it mostly came from me.

And in order to let go I needed to feel that there was something that was going to come in for me, that I couldn't see yet but I needed to have the faith that it was part of this bigger picture and if I could only let go that I could embrace the new thing. And I felt a lot of strength coming for me from that attitude.

For about a year I was doing a lot of exploring, and I also was in a relationship with a man who is -- very special person. He teaches tai chi and he's, he introduced me, he and other people he knew, to Buddhist meditation and a lot of different forms of healing.

And that's when I went to California for a while, and I had a very spiritual experience at Point Reyes. We'd been hiking in there for a couple of years -- years, wwssh [laugh] -- days, and I was just so moved by how beautiful it was, and sleeping out at night, which is -- I just love to do that, I just love to be outside. So that was part of it. I was feeling really happy and really inspired, and there was this storm coming off the ocean. We were way up high on these high meadows, and it was coming in off the ocean, and we just watched it coming and saw that vastness out there. And noticed that it was really going to be a big one, and

started running up this hill to the woods to just get under cover.

And C. had gone ahead and I was sort of out there by myself at that point and enjoying the feeling of the storm coming in and wanting not to get to the woods too soon, because I liked being out there. And that's when I found these antlers on the ground. And I really felt like they were for me. And there's no doubt in my mind that they were for me, and I felt very blessed. And it was sort of -- for me at that point, after going through a lot of grieving, it was a signal that I was -- it was an answer to me that I really was being guided and helped and that I was going in the right direction. And I just needed to keep following my heart. And that was -- but I never articulated that before. It's -- it was a real confirmation for me.

Right after that we went in the woods, and we actually made love, right then, in the woods, in the rain. It was pretty powerful [Laugh]. I felt like a goddess. It was neat. It was like primordial sort of situation. And then after the storm the sun came out and there was a shaft of light that hit a huge hawk feather right on the ground near us, and it was such a blessing. I mean there was no doubt, it was just this ppwooohh -- beautiful hawk feather. And we'd been watching the hawks, you know, for a couple of days. They circle around up on the tops of those hills. And I'd been -- and also watching the white deer. The deer and the hawks were very present for us, and really felt like they were very special to us personally. And the feather -- you know, we both said that's your feather. And that was his feather.

And I started, uh, looking around for what I wanted to do next. And I what I found was Interface in Boston, which was part of my -- I was really interested in learning more about counseling and also health issues. It was right on for me. I was just real excited about it. I got into that so strongly because I needed it, I needed to find something that interested me a lot. And it was totally new outside of my relationship. No more building houses. And I also spent two nights a week in Boston, so I was outside my community quite a bit too. And that's just, uh, continued to grow for me, and it's been a way of -- it's been a way for me to heal myself and also reach out into the world and feel connected and feel that I'm expressing myself in a purposeful way.

I also think of my counseling as my political work. And I feel real strongly about it, and it's the first thing in my life that I've felt really strong, like it came from inside of me.

I'm in a relationship with a man now and I don't desire to live with him at all. And so there is a new way. So I've stepped out of a completely old way of -- I guess I really have stepped outside of how I used to see things, and it's opened up to -- there's endless possibilities of how to

create your life. And so it's a wonderful magical,...trip that I'm on, rather than having just swallowed everything, you know, from when I was a child to all the -- a family and marriage and work.

It's just opened up tremendous opportunities for me. And one of the pieces, a healing piece, has been that I built my own house, and I did it with B. [husband] We built it with a third person. And, you know, once again, like he's always designed them. So I designed my own house and we completed it about a year and a half ago. And for me it was an example of my new life, taking charge, and also seeing new ways of doing things. Like there's, there's really -- this doesn't have to be a closure, I don't have to shut off my relationship with him, I can use what we have and build a new life for myself with that. And he was willing to do it with me, so. And that was such a healing. I don't really want to build houses anymore, but I was able to use the skills that I had to build my own house. And so it's like the end of a wonderful story in a way.

Analysis of Interview #7

This is the story of two morphogenetic changes. The

first begins with the initial kick of the birth of the baby.

This chapter is called "The Winter of Discontent", and the

theme is self vs. family. This, combined with other

factors, the smallness of the cabin, her interest in

feminism, creates an escalating positive feedback process of

increasing tension, which finally breaks, changing that

system/family forever on the night that she returns to find

her husband with her brother's fiance. The polarity is not

resolved on a higher level, but instead resolves on the

level of "self". This begins a chapter called "Death".

The second process is initiated by this event, which

creates an escalating process of dissolution for her. She

is called upon to redefine herself, her relationship, and

her lifestyle since she can no longer rest in the simple
identity provided by family, wife, and mother. The theme is
holding on vs. letting go, expanded vs. contracted
definition of self. She tries to regain the old equilibrium
by redefining the marriage as open, but the process
continues. She reverts to an earlier level in her anger and
jealousy.

This process escalates very quickly until she is "way
off center, physically, emotionally, everything". It gets
so bad that she reaches the maximum disequilibrium very
fast, and comes to the point of surrender to it. She steps
back: " I didn't feel that I could fight it", and
immediately begins to have flashes of integration: "It was
so overwhelming that I had to just say this must be part of
a much bigger picture". Around this same time the counselor
helps her to realize the extent of her loss, and the
acceptance of grief has the same effect : "as soon as I
realized that it was like dying I felt this great sense of
relief".

When asked what might have happened if she had not been
able to change, she said: "I would have been very resentful,
and I never would have really totally let go of B. and the
old -- the scene. Would have been kind of shriveled up with
anger and resentment".

She is able to change, however, and from here the
process of reorganization begins, and the chapter called

"Rebirth" as she explores new options in her life. A pivotal event in this stage is the powerful experience at Point Reyes. It does not seem to be a major turning point, but rather a memorable piece of significant information that confirms her direction.

She finds a new focus as a counselor and builds a new life around it, establishing a new, more highly integrated equilibrium from which she derives great satisfaction:

> I guess I really have stepped outside of how I used to see things, and it's opened up to -- there's endless possibilities of how to create your life. And so it's a wonderful magical,...trip that I'm on, rather than having just swallowed everything, you know, from when I was a child to all the -- a family and marriage and work.

It is not longer a matter of a choice between holding on and letting go, but rather a constant creative process of self-definition that includes both.

Participant #8

Participant #8 experienced a dramatic turning point,
followed by a long period of integration. The event took
place when she was 20; she is now 35.

> I was only 20, my son was four, I was not -- hadn't
> really had much time to be an adult, to be introspective,
> looking at myself, you know. And I was just beginning to be
> able to do that, you know. And I remember I slowed down, I
> mean, also, I feel as if I had been at that time just
> running all the time, running from whatever.
>   I was beginning to see that there were other -- I was
> in school, I was in the community college. And I was
> working, and -- people didn't have the same experiences I
> had, people didn't have the same feelings I had. They
> expected something out of life, I mean, they expected
> something different, and it was just like a -- so it was a
> real learning process for me at that time, you know, that
> the -- just watching, just listening, watching. Seeing how
> other people were with each other, seeing how they were with
> their kids, and how they -- how their parents were with
> them. Of course, I was in a strange -- I was a parent, but
> I was a kid, you know. And I was in school where a lot of
> people were older too, but there was still that -- some of
> them were still attached to their parents helping them
> through school kind of thing, and were still my age mates.
> And so there was just this real confusion around who I was
> in relation to the rest of the world in a sense, you know.
> And I had never really gone through a real adolescence.
>   The other things that were going on at that time was
> that I was also becoming, into a time of competency. I was
> doing a lot. I was working, I was -- we were remodeling the
> house we had owned. It was finals week at the same time. I
> was involved in the school I was in, and I ran a lot of
> activities. I was on the governing board, was very busy.
> And it was a real, like this real competency that I felt,
> you know, away from the home. And that was like it gave me
> some strength. That along with seeing how other people
> thought, felt, expected things.
>   As I became stronger not home, the difference became
> more and more and more apparent to me. There was a -- who I
> was while I was there, how I felt, how I was treated, how I
> was seen, as opposed to when I was outside the home, and the
> discrepancy was unbearable. Yeah. And it was the thing that
> really, you know -- pulled in two directions. It was just
> too much, you know. And it was more unbearable as it got
> better, as I got stronger, as I felt better outside the home
> in school or, you know, in the world as I was more
> successful, the more that felt bad. And I couldn't bring

that along. I tried, and that was even worse because that
was a great deal of pain, you know, that there wasn't that
_____ness in the relationship, in my home, with anyone.
And so that it was just a painful place to be.
        I'd say it wasn't a big, dramatic kind of occurrence of
anything, but it was something -- it was like somebody hit
me over the head with a two by four, which often is what has
to happen in order for me to see something, you know. And -
- well, what happened was, sitting in the living room with
my, at the time, husband, sitting as close as you are, and
my son at the time was four, very articulate, very
sensitive, a good survivor, comes to me and says, "Mommy,
will Daddy play checkers with me?"   And it was as if,
like I say, someone hit me over the head with a two by four.
Because all of a sudden it was like -- I can remember
feeling a shortness of breath, I mean, like, you know, an
intake of breath, a gasp, in a sense. Tears, you know.
Everything, just kind of like this shwooooosh that went
through my body. And I've never forgotten that. It was
very physical for me too. It was like, I held my breath, I
looked at him, and it was as if time stopped. And it was
just -- it was also very scary. It was having this real,
almost like a terror kind of thing come on me.
        I actually felt as if time was suspended, OK? That I
remember that the room we were in, the TV was on, where, you
know, his father was sitting, what he had on, like a picture
of it I have, a moving picture. But then it's like
suspended. And everybody was still while I went through all
this. And I'm sure it was moments, I mean, and it wasn't
more than that, you know, and went through the emotions that
went along with it too, you know. At that point in my life
I did not cry, so even though I felt that, certainly no one
would have seen that, you know. And at the same time on the
outside trying to be his Mom, OK, and trying not to make it
worse than it was by seeing Mom have this . .attack
[laugh], you know. "And all that you want to do is play
checkers, and it isn't like a major big deal", you know? I
have that recollection of being inside and outside at the
same time, like the outside Mom doing what Mom's supposed to
do, you know.
        And then I looked at this little four-year-old -- I
mean, his father's not deaf, he was sitting right there.
And I said -- all of a sudden I -- what went through my mind
was all the things I had done up to that point to try to
hide from him the fact that his father wasn't that involved
in a real way, a real -- you know, he didn't really have a
relationship with him. And what went through in a matter of
seconds for me is all the things I had done, OK? Not that
they were wrong or right, but that I had not been fooling
this kid how important I felt it was for his father to have
a relationship with him, OK? He knew who it was important
to, you know. I mean, I didn't even know that until he said

that, all right?   And what happened was like everything
from before he was born to beyond that as to why have I
worked so hard to make something what it's not. Why am I
hiding this from him? I'm not protecting him. I'm really
not keeping him from being hurt. Why has it been so
important, you know, and -- and it was very -- so clear to
me, it was so clear, it was -- I had no choice but to not do
that any more, you know. I chose not to do it anymore, but
it was so clear, you know.
        I was in a daze actually. I mean, I can remember just,
like, -- I think I left -- I dealt with the kid, and then
consciously left the situation, and I may even have left the
room, I think, had just gone to the kitchen to brood or
something, but it was like, I can't believe.
        And I think a lot of things started happening for me
then, thinking about not just my relationship with my son
and with my husband, but with -- why was that my job to do
that, you know. And really doing a lot of real looking at -
-I spent nights just walking, talking to myself, crying, you
know. And I didn't have a way of getting any help or
support. It wasn't a skill I'd developed yet [laugh], you
know. I walked the kitchen table. I would walk it one way
and talk to myself, then I would walk it the other way and
talk to myself back again, answer myself, OK? I was doing my
own counseling, I believe. I mean, one way I was me, the
other way I was a therapist, one way I was me. I mean, it
was crazy. And I -- and it was, it was a very turmoil -- a
lot of turmoil at that time in my life, and I was on a, like
a spiral, you know. And it was like a agitation that just,
it really intensified more from that time on.
        And I'm sure that dovetailed with a lot of other things
that were going on. I would not have been at the point of
my life where I could have --where what he said was
significant to me, because it wasn't two weeks before that
he'd probably done something very similar and I hadn't
noticed it. But it was so vivid for me, that it like was --
 it really touched off a series of real examinations about
my behavior and my place in the marriage, with my son, and
also, I think, was almost the beginning of separating him
from me.
        I mean, I realized that he -- and I don't really
understand why this comes out of that, but it was a real
time of feeling that --it was important -- one of the
conclusions I came to was that it was important for his
father to pay attention to him because it was important for
his father to pay attention to me. What I realized was that
we're two different people. And I was really trying to
protect myself, and I hadn't accomplished either one of
those, you know, and, and -- and it wasn't to be
accomplished, I had to do something about it. I couldn't --
 I couldn't make what was, or wasn't, there, I couldn't make
it different for that. I could change why it was so

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important to me, but -- he also became an individual in a
sense, OK?

I guess now I can say in that feeling a distance from
my son I realized that I wasn't a kid, I mean, I acted as an
adult, I was responsible, but inside I felt like a real kid.
And it was as if that was like the beginning of being an
adult. And I lapsed a lot but, you know, that was like a
time when I said.. .. I'm somebody, you know. And it was
very, very painful,

It resolved, not right away. I let go of some things.
I mean, I think some of the resolution was in the -- this --
 actually what I did -- it was like a period of some weeks
when I really did do that a lot. I mean, it was, like,
nights and I, and I think I resolved things then because I
didn't do it after that. And I changed -- I let go of a lot
of stuff in terms of --it wasn't necessarily all positive,
around -- I mean, I was really resentful, I was -- I mean, I
just -- never went home. I avoided it. I said, fine, you
know, I'm going to stay out in the world where I have some
status and have some respect, and I'm not going there, and
not going to be there. So in that sense I put it aside, you
know, and just got stronger and, and positive stuff that I
needed, you know.

It was just a matter of how can I be the same way I
was? I mean, I couldn't do that anymore without feeling
something. And there were times when, when I would have a
lapse, you know, when I would go to do something, or I would
feel incredible, like, pain or sadness over, like, will his
father -- I'd like scheme again, OK. Maybe one of the
things I'd do is try to make peace, you know, everybody
happy, and I'd start this scheming and then I'd feel so
awful about it and say, look what I'm doing, look what I'm
doing.

So that was a real change. And a lot of things in my
life changed after that very quickly for me. I let go of --
 I didn't, I didn't get the who I was from my relationship
with my husband or my family. Who I was and how I felt
about myself became more and more in terms of who I was in
the world, how I performed in the world. You know, my
status, that's the word I want.
And it was also, that was also the beginning of some real --
 not that I hadn't felt it before, but some real definition
of me saying I'm going to make some decisions about what's
right or wrong, you know. I have to. And I had nothing to
go on, which was the fear, the vacuum that was there. [This
participant later divorced her husband and is successful in
her profession]

Analysis of Interview #8

Participant #8 named four chapters: "The Setting",
"The Atmosphere", The Moment" and "The Aftermath". The
setting and the atmosphere refer to the circumstances
leading up to the transformation point. She was
experiencing mounting dissonance in her life--the split
between home and school/work, child and adult, dependence
and competence. She is engaged in a developmental process
of system change, moving from child to adult, and feels
unprepared for it. The initial kick for this process may
have been motherhood at 16, going to college, or it may have
been an internally generated maturation process, or all of
these.

She absorbs information through watching other people.
The system is open to new information. The more she learns,
the more the tension mounts, and the more intense the
dissonance becomes. This escalating process continues until
the moment, the pivotal event.

She describes the moment in great detail; here at last
is Rabkin's saltus! Sudden, complete, triggered, and
outside of time, and complete with the little gasp of
breath, it propels her into another state of being. The
change is irreversible: "It was just a matter of how can I
be the same way I was?"

This moment is also the initial kick which begins a
long process of integration of the new organization, which

she calls the aftermath. Things do not fall into place all at once, it takes her consciousness and her life circumstances time to adjust to the change.

The moment may also be seen as a kick initiating a process of disintegration. It is clear to her at that moment that she cannot continue with life as it is, and there follows a period of dissonance and dismantling her life as it is.

From either point of view, she arrives at the end of this process with a radically altered view of herself and her place in the world, and her relationship to other people, framed primarily in terms of becoming an adult and taking charge of her own life.

She resolved the split between her self at home and her self at work by discovering a new adult self. She redefines her role at home from dependent to independent and at school/work from learner to competent adult.

Participant #9

Participant #9 recognizes a transformation point
preceded by several turning points, and followed by a period
of adjustment. At the time of the story, two years ago, she
was 34.

As an actress, an experience I had early on, which was
a peak experience, of being completely and utterly in the
flow on a stage. Words coming out of my mouth and I didn't
know where they came from, even though I had rehearsed them,
but it was like another voice, it was like being possessed,
it was like going -- you know, just totally on the flow.
And understanding that that was a place that I could be.
That was a glimpse of peace.
I decided to quit smoking, a habit that I had had for
19 years. I never went a day without cigarettes. It was so
painful it ruled my life, you know. People couldn't
tolerate my smoking. I was ostracized from a lot of things.
I would ostracize myself, you know. I'd say -- I'd say to
myself, well, I can't go there, I can't smoke. I can't do
that, I can't smoke. And it became a real tyrant to me.
And I just got to the point where I recognized my
addiction and realized that I could not survive without
these cigarettes and I was -- and I couldn't handle it, I
couldn't handle that kind of dependency. Now I understand
what it means to be addicted to cocaine and alcohol, having
been addicted to cigarettes like that. That, you know, you
hit rock bottom.
Oh, another significant thing about giving up smoking
is that giving up smoking was an understanding of all the
things I was addicted to, not just smoking. I mean, at that
point I understood that I was addicted to men, and people.
And that was horrifying, I hated that. And I learned that I
had to let go of that too. And that the only way to do
that, just as the only way to give up cigarettes, was to say
I'm hopelessly addicted, and what AA says is you give
yourself up to a higher power. And I went to a hypnotist and
was hypnotized out of it. I handed him all my faith, and
that's what did it. And I recognized that clearly. It was
my handing over my faith, belief. That was the first
understanding of what belief, the power of belief, could do.
And, uh, that started a huge chain of events. Many
physical changes that took a year to overcome.
Three months after that, my father died, which was
really a significant event. Up until that point in my life
almost everything was done in his shadow. I mean, he is the

epitome of a critical parent on my back. With the grief and the sadness, not only from the loss of the cigarettes, primarily -- which was a major grief and sadness, losing cigarettes was like losing an appendage, and a tremendous emotional addiction -- then losing my father, and I went through this, this terrific grieving process.   But shortly after my father's death my childhood friend had sent me these books, the Course in Miracles books, and they arrived on my doorstep one day. And I started doing this Course in Miracles.

Now, at this time I was in a job, I was advertising manager of a major brokerage firm. And I had taken the job because I wanted to work with this woman who I thought was wonderful. But as it turned out, she got promoted and I got this horrible guy as a boss, and, you know, which brought into play, you know, the last straw of all the work experience of my life, which was always about having some controlling asshole male boss over my head that wouldn't let me do -- you know, much like my father, right? OK. My father was dead, I still had to deal with this boss, and I blamed myself a lot for it, and I just couldn't get straight on this issue. And these books arrived and I discover God. Which essentially was discovering the, the nurturing parent. ... it was extremely comforting to start discovering God. Now one day in this process -- this Course in Miracles thing, every day you did a little lesson, one lesson --

And one day I walked into work and my boss had called me up on the phone and he said to me, I want you to write an ad, here's the headline and here's the body copy. And I said to him, oh, you want me to type an ad. He said, oh, no, no, I want you to write it. I just couldn't argue anymore, you know. I just said, OK, bye. And I stood and I stared out the window, and the words of that day came back to me -- the course of miracles words. And the words were, "I can have peace instead of this". So I went to the typewriter, put a piece of paper in and wrote, this is to inform you of my resignation, effective immediately. I left it on his desk, packed everything I had, and left, and never went back. Which is something you just don't do when you're an assistant vice president in a major corporation. And that was two years ago, and I never went back.

And I knew that after that day, when I said I can have peace, what that was going to be about was learning what want meant. You know, learning to understand what I wanted. Learning to understand what it felt like to feel good.

And I stared at the ceiling for six months, working through some of those conflicts and feeling the grief, tremendous grief, knowing, knowing at that point, after I said that --I went in search of psychics after that too. Needing another perspective, needing somebody to read what I was feeling in my head, knowing that I was entering a new world, and being told that by psychics.

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You know, I was entering a world that I was, that I was never going to be able -- I wasn't going to go back to where I was, that this was -- It was the step beyond. It was jumping over the chasm. Reading. I read everything I could get my hands on. Every psychology, trans-personal type psychology book I could get my hands on. And many events happened after that, but that was the decision point in my life to take peace instead of confusion. To, to trust in the universe, to begin living a life of choice rather than of should. And so, in effect, what had happened was, the death of my father was an extremely liberating thing. And when he died, that was -- you know, that was permission to live my life. And there was a lot of letting go to let that happen.

I'm happier than I've ever been in my life, and I probably can say unequivocally now that I truly want to live, and I've never said that before. And the happier I get -- and it's been a progression of happiness -- tremendous progression and very fast. I mean, I just -- at a moment's notice I'll break down and cry over how much pain I endured for so long. That's, uh....I think that the world doesn't understand, people don't understand that when you finally get that it's OK -- not only OK to be happy, but it's imperative, that it's an absolute imperative, that that's what we're doing here. That our very presence of happiness is the greatest contribution to the world that there can be. That helping other people isn't going out and doing things external to ourselves. Helping other people is being. . . being. . . being happy, being centered.

If you have faith, if you just ask for it, it will come. And it came to me in so many ways. I mean, everything I asked for came to me. There's something about when you allow yourself to be happy, or even sad, or when you allow yourself to be whatever it is you are -- I really believe this -- that all that you need will be there. And the more --I know that the more I trust that and believe that, the more it happens.

Analysis of Interview #9

The theme of this story is the polarity of being

driven, by addictions, father's criticism, boss, vs.

autonomy, choice and self-expression.

This story, like many of these stories, includes a

flashback to a "preview" of the coming change. For #9 it

was a moment on stage when she felt "in the flow", a preview

of what she would later call "peace". This indicates an
openness to the information when it came around again, and
the potential for and beginnings of reorganization around
this new information.

The initial kick in this story, quitting smoking, is
actually a mini-process of morphogenetic change in itself.
She realized that smoking was "so painful it ruled my life",
i.e. and this realization provided the initial kick. The
dissonance caused by this realization increases, including
realizations of other addictions and of inability to handle
them. The turning point is the "handing over my faith" to
the hypnotist--hitting bottom and giving up, at which point
the old organization, the polarization between wanting to
smoke and wanting to quit is abandoned, and something new
can occur: not smoking. This process itself entailed a long
adjustment period afterwards: "Many physical changes that
took a year to overcome", and a grieving for the lost
component, smoking. Dissonance increases. The resolution
of the first problem forms part of a larger problem.

The second kick is the death of the father, which
intensifies the grieving process, creating more dissonance,
as the old status quo disappears.

During this grieving process a friend sends a piece of
significant information, the Course in Miracles books, which
begins the process toward integration.

The transformation point, where she can reorganize on a higher level, is provided by the moment at her job: "And I stood and I stared out the window, and the words of that day came back to me . . . . 'I can have peace instead of this'. So I went to the typewriter, put a piece of paper in and wrote, this is to inform you of my resignation, effective immediately." She chooses a new path.

Her description of the alternative is clearly of dissolution: "I'd be working at a job I hated for a man I hated, a life I hated. Well, actually, where do I think I'd be? I think I'd be very, very sick. I think I'd probably have cancer. I think I'd be on my death bed."

The new path, however, does not unfold immediately, and there follows a period of grief and loss and "jumping over the chasm", of piecing together the new organization: defining what peace means for her. She is willing to let go of the old organization, and when asked what made it possible for her to change, she replied "my mode of operation is to destroy. You know, it's like, if it gets to be too much I will wipe out everything and start from scratch. It's that drive that has kept me alive and healthy. Always carrying around that glimpse of peace, and knowing that there was something more." Like #8, the transformation point is also the initial kick for a process of disintegration, followed by integration.

Her description of the qualitative difference between the beginning and the end state is framed in terms of happy and unhappy: "prior to that was, oh, such a struggle, it was so painful. It was physically ill. It was, it was -- oh, god, it was awful. I'm happier than I've ever been in my life, and I probably can say unequivocally now that I truly want to live, and I've never said that before." It is also framed in terms of choice: "To trust in the universe, to begin living a life of choice rather than of should." She resolves the polarity of addiction vs. autonomy in peace and happiness, where there is no longer a conflict.

Her experience of going into the new state is of going into a new world, a step beyond, and of not being able to go back. The change is irreversible.

Her chapter divisions provide interesting new terminology from dramaturgy:

"Exposition": circumstances leading up to quitting smoking.

"Inciting Incident": quitting smoking. "That's when the apple cart gets upset, and then that gives way to rising action".

"Climax": Father's death

"Recognition Scene": "I can have peace instead of this" moment. "That's when the hero recognizes some profound truth that alters the course of their life."

Denouement: the resolution.

This terminology recognizes the initial kick, the point

of maximum dissonance, and the transformation point. It

divides the transformation into two parts, the

transformation point and the reorganizing process.

Participant #10

    Participant #10 experiences several turning points in a

transformation process. The story takes place over two

years, ages 36-37. She is now 39.

    My previous patterns in my life had always been to --
my only sense of purpose had been to experience life. And,
you know, I never held down a job for more than two years.
When I had learned everything I could I'd move on to
something else. I was always experiencing, moving, grow --
you know, mastering different things. But I had no real
sense of uh ..continuity there other than just experiencing,
dealing with a very physical, concrete world, and I had
really pushed anything spiritual away because of growing up
in such a religious background that it was just like really
-- you know, I'd just cringe when somebody said the word
god. And then, my last job I had I went sailing for two
years on a sailing schooner, and....
    I was dissatisfied with sailing just because of the
lack of depth, the impermanence, the transit, and, you know.
During the end of that time I would say, when I get done
sailing I'm going to go settle down somewhere and I'm going
to, you know, pay attention to myself. I'm going to go on
an inner journey. I mean, it was almost like I had set that
up without really realizing it. And, there were, there were
sort of seeds planted along the way, as I look back.
    It basically started with moving back to P_____ and
finally getting a place of my own. I went through like about
six jobs in six months, and I, you know, I was like -- how
old was I? You know, thirty-six or something like that.
And, you know, here I am at thirty-six and I still don't
have a clue? And then it's like, how many more years can I
keep starting over and doing this and finding interesting
things to do without really having any clear direction. Can
I, can I really sustain this, can I keep on doing this, or
is there something else here that's supposed to be?
    I would come home from work and sit in a chair for
hours and have no idea that the time would pass and have
this real sense of a lot of things working under the surface
that I had no idea what they were. And it was like at that
point nothing in my life had any meaning, any interest for
me at all anymore, and I was like -- and my friends, they
didn't -- I didn't really want to be with them. I mean, I
was taking my phone off the hook all the time, and I was --
you know, nothing had any meaning. I almost felt as though I
were walking around in an alien world, like nothing had any
relationship to anything that was important to me. Nothing
I had done previously in my life, you know, I mean, it was
just like, what does all this mean, you know, what's this

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for, what's it about? And I would -- all the things I used
to entertain myself with, it was like, this is bullshit, you
know. it was just all -- and I, I think something had to
give, because I wouldn't have wanted to hang out in that
state very long. So there was a real search for meaning
there.

     And I spontaneously starting to pay attention to my
dreams and explore all kinds of metaphysical things. So I
started tip-toeing around the edges of the possibility that
there was something else in this realm that I could handle.
And finally it got to the point where things were coming so
thick and fast for me -- I mean, I felt like a walking
volcano, I felt like there was all this stuff in there, and
I didn't know what it was, where it was coming from, where
it was going, or anything. Waking up in the middle of the
night and feeling like the air was just thick with this --
you know, and sort of feeling like, OK, I'm ready, you know.
I'm sort of waiting for it to kind of land on me. And, uh,
and then, I finally just quit work. I realized that I just
had to have some time to just really do this. And so I took
about five months off and did nothing but sit around and
meditate and read.

     I went and I decided to seek counseling for the first
time in my life. In my family there's not even any frame of
reference for anything like that. You know, you don't do
stuff like that. So that was pretty amazing in itself.

     One of the sort of distinct turning points I think was
I had my chart read and I went -- my astrological chart
read, and I went to see this woman and I said, I have the
sense that there's something I'm suppose to be doing. And
she looked at my chart and she said, yes, you have a divine
purpose. You're supposed to be a healer. She said one of
your major obstacles in developing this will be fear. And
I'm going, "huh?" [Laughter]   [Added in a note after
reading the transcript: The "huh" was not a response to
hearing that I was to be a healer....the "huh" was because
at that time in my life I really was not aware of any fears.
And the laughter was because I could see, in retrospect, how
little understanding I really had of the process that was
later to unfold and the depths of my fears.]

     I was experiencing such intense fear that, you know,
didn't have any relationship to anything. I think initially
the first fears were that I wasn't going to get there
somehow, I wasn't going to be wonderful, I wasn't going to
somehow realize this awesomeness. And then of course there
was the fear that I would. But there were also times during
that time when I would be just like so filled with joy and
excitement, I mean, I would be just like jumping up and down
and laughing and just -- I mean, and it was -- there wasn't
anything specific going on, it was just this, you know,
totally.... There was such a sense of expectation, you know,
of something really big that I think a lot of stuff happened

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before I even recognized it because I was looking for it to
be something else.

And then quite by total chance I saw a poster
advertising Introduction to Psychosynthesis class. And I
read what it was about, you know, and it was, like, guided
imagery and things like that, and I kind of read it and
went, oh, god, because I'd always hated stuff like that.
But I was nevertheless drawn to it. I have no idea why,
because there wasn't much appeal in the -- but I went. I
went into the first class and it was like food, it was like
I couldn't get enough of it. I was just like a sponge, I
was just totally receptive, and I felt like I could have sat
at P.L.'s feet for, you know. And I also remember around
that time reading a book called The Wounded Healer, and
feeling like, well, how can I be a healer, I haven't been
wounded. I had no sense of any issues or anything, you
know. It was like I had this sense that I -- OK, I'm
supposed to be a healer, you know, I maybe have some powers
here that are going to, you know, land on me, that are going
to sort of -- but, you know, it took, it was a long, long
process for me to sort of start seeing all of that.

Then gradually from that unfolded a sense of very clear
purpose for the first time in my life.

It started with the first psychosynthesis class, you
know, where I was just like this is it, you know. And then
making a choice to work with P. in therapy, which was
terrifying as hell but it was just like I have to do this,
you know. I mean, it was this very strong -- and then, uh,
I remember going to him and just saying in utter terror, I
think I'm supposed to do this work, you know. And I am
ready to do whatever it takes to learn how to do this. And
of course P. at that time to me was like God (laugh), and
for me to say that to him was like really -- you know, I
don't think I've ever in my life said this is it, this is
what I want to do, I'm going to do whatever it takes to do
it, I'm putting it out there and I'm going to do it, you
know. I don't have any money, I don't know how I'm going to
get there, I don't -- but, you know, I'm going to do this.
And there was very clear commitment and sense of purpose
there.

Now I have a very strong sense of purpose, and -- I
wouldn't say, I wouldn't say that I've reclaimed old
interests, although I have a little bit, but more I've
found, you know, a lot of other dimensions. I just have a
real sense of overall, the overall magical pattern of the
universe, you know, and how things fit into that and how
they unfold and develop and. . . .that must have definitely
been a part of my belief system before, because I was pretty
excited about life for most of my life, you know, until I
hit that point. But there definitely is something new added
in terms of -- I think in terms of purpose, basically.

Analysis of Interview #10

Participant #10 has inklings of the process to come while she is on the sailboat, a sort of preliminary push from inside that something needs to change. The theme is living in the moment vs. commitment.

There is no identified pivotal event which initiates the process. She is aware of internal dissatisfaction which increases. When she returns to her city, at first she attempts to maintain equilibrium in the same way; she has six jobs in six months. This increases internal dissonance: "Can I, can I really sustain this, can I keep on doing this, or is there something else here that's supposed to be?" This is her first chapter: "Awareness of Something Going On".

This dissonance increases as the system disintegrates: "Nothing had any meaning. I almost felt as though I were walking around in an alien world, like nothing had any relationship to anything that was important to me. Nothing I had done previously in my life." She reverts to an earlier level "sitting in a chair for hours".

The difficulty increases until she finally gives in to and quits work to pay attention to what is happening to her. She seeks out new information, investigating "metaphysical things", going to counseling, and consulting the astrologer, who provides her with a major piece of significant information. This information begins a turning point in the

process. This is the chapter "Gathering Self-Knowledge", which overlaps the next chapter "Inner Exploration".

At this point she begins to experience previews of integration in the form of joy and excitement and expectations of things to come, as well as intense fear as the old system dissolves.

She next encounters the most significant piece of new information, the Psychosynthesis Class, and the transformation point, when she makes the commitment to continue in Psychosynthesis. This was followed by a process of integration and adjustment: "gradually from that unfolded a sense of very clear purpose for the first time in my life".

When asked what would have happened if she had not been able to change, she had difficulty imagining the possibility, and said: "I suppose it would be possible for it to get worse. It's hard to imagine. It was pretty weird. I think something had to give, because I wouldn't have wanted to hang out in that state very long."

She frames the difference between before and after in terms of ". . .perspective. Like before was just sort of experiencing life sort of moment to moment and getting what it -- and after was more sort of a big picture and, and the unfoldment of patterns and purpose". She has resolved the polarity of immediate experience and commitment in her sense of spiritual purpose, and they are no longer opposed.

Participant #11

Participant #11 experienced increasing dissonance, a turning point and a transformation point. In a way his realizations are the opposite of #10: he rejects long range goals in favor of living in the moment. The story takes place two years ago, when he was 33.

I took this other job in West S_____, and we moved, and the job was very high stress. The -- it was becoming, being a supervisor as opposed to -- in a telemarketing department as opposed to working by myself. It was the first thing I thought of when I thought about things I could do that would make money. Now I also thought I would enjoy doing it, but it wasn't the first thing I thought of. That's a really important distinction.

And I discovered very quickly, actually in about two weeks, that I did not enjoy being a supervisor. I thought maybe I wanted to be a manager. I thought maybe that would sort of solve it, but the more I got into the job the more I realized that for whatever reason, I wasn't happy in that kind of supervisory slash management -- although I wasn't a manager -- capacity. I'd be thinking to myself, can't stand this, you know. Choose not to want to be here or something else. But what kept coming up was can't stand to be here, so. Which also showed me the level of intensity.

And just -- it sort of got more and more and more intense and, umm, I found I was sleeping a lot, just, you know, a lot of things led up to it. But I just, I kind of assumed it was just going to keep going, you know. I really didn't feel like looking for anything else and this was the highest paying job I could -- I mean, outside of being specifically in sales. I looked at a lot of jobs, I assumed I was going to stay in management, kind of, I just figured I needed to find something at a higher level and push forward there. And, really mostly for monetary reasons didn't really think about leaving. I just sort of -- went on the assumption that somehow I could work it out, it would straighten out. Things seemed to be picking up a little bit.

And then, at the same time, I'd been getting sick a lot more. I'd be fine during the week and I'd just have a cold all weekend. Every other weekend just about, sometimes two or three in a row. And Monday morning I'd wake up and gradually through the day feel better. Manage to pull through for the week and, you know, end up going to sleep early most week nights and just sort of a downturn to my health.

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I started seeing a homeopathic physician who said to me, "I almost never say this to anybody", and he sort of hemmed and hawed for a couple of minutes and then he said, "I think you're spiritually drained." And he suggested that I start meditating And I went to an introductory workshop and it really hit home.

At some point I decided I needed to leave my job. I talked with my wife about it. I talked about selling the house, buying a bus, traveling around. I was ready to just chuck it all because I just didn't know what else to do. All of which were very difficult to talk with her about because that kind of threw her security up in the air. Umm, so we kind of talked about different options and decided to take it one step at a time. It became clear that selling the house or moving and renting was not going to be practical. She wasn't going to be comfortable with that and I --the relationship at that point was not something I wanted to toss in the air as well.

Oh, I know. I did a couple of workshops. I took the Art of Empowerment. I went there intending to work on a workshop that I wanted to do myself, and the stuff at work kept coming up so I finally just let it come up -- those images kept coming up. Finally decided just to go with that but also figure out why, since I was not particularly into it, and realized that I was actually keeping myself from getting into it in a way. Which was making it more difficult. Like I was deliberately drawing a very clear line between that work and other things I did in the rest of my life. And it became clear to me that I was going to have more and more difficulty as long as I continued to do that, and also looked at why I was doing it and realized it was because I wasn't particularly interested in what I was doing. And didn't want to get into it. That was kind of the first step.

And then I took the Advanced Empowerment. And I don't know if this was before I decided to leave or after. I think it was before. And that's a very spiritual workshop. Spend a lot of time just meditating or writing or being mindful. And I think it was actually at that workshop or very soon after --I decided that I had to leave.

Right before I decided to leave I was having this major, major stress. You know, should I or shouldn't I, what am I going to do. And people [at the workshop] were talking about how they got this,.... some other examples. People just left jobs, families, houses. well I picked those people out. I sat down and I ate with them. I just said, tell me more. Because I really wanted to learn from examples, I just wanted to see how, how -- not that I was going to do it that way, but, I mean, they're still alive, right? Uh, and -- so going through this, then having this big crisis, and my thinking, my god, these people are courageous. People -- you know, really thinking what a big

decision it is. And then I decided. And it's almost like built up and built up and built up and built up, and then I decided, and all of a sudden, [snaps fingers] what's the big deal? I mean, it was that, and it was like it happened in a split second, I'm convinced, although it might have happened over a day.

It feels -- even a week after I remember I was saying to somebody that, umm -- I, I tried to give an example, I said it's like seeing somebody -- driving down a street and seeing a car hit something and start to catch on fire. OK. You've got a split second when you're thinking about am I going to stop the car and get in there, and how am I going to get in and all. And you just do it. I mean, you just go on automatic pilot and you don't think. This is why heroes always -- I mean, somebody says that was brave -- I just did it.

What do they call it with the point? Vertex? No....That point is like that fine, and I'm convinced it's as fine in the decision I made, and just as instantaneous. And then people started telling me, boy, that's really -- it must have taken a lot of courage, and I just sort of like, I said, yeah, I thought that before I did it but now it just seems perfectly natural. I feel much better and I can't imagine -- didn't seem like, doesn't seem like such a big deal now. What's the big deal, you know.

Which kind of pulled the rug out from under my wife. She's an artist. And she was doing her artwork -- not selling it, but doing it, and having the time, and having three days of daycare and being home with J. [son] the rest of the time, and sort of, you know, falling into more standard roles All of a sudden I pull the rug out. Well, you know, she's not going to be able to do that anymore. I'm leaving my job. And we started seeing a counselor at that point because we really didn't know how to deal with all the stuff that was coming up about that. Because it really was kind of an ultimatum. I mean, I didn't mean it that way, I didn't come at it that way, but for me it was. It was like I've had it, I'm just not doing this anymore.

I'm going to back up a little bit, somewhere in there, R. announced one night that he needed somebody to work in his office. And I just got this -- I'd love to do that, you know. Can't do it, I have this other job.

So I approached him again, before I'd given my notice. I met with him, and said I would start, and then I gave my notice at work.

I just kind of totally shifted the whole way I was looking at what I was doing. - I realized it was always because I had this -- I always had this problem with goals, and I also had this thing I was doing it for money or whatever, that was always out there, and I always struggled trying to make myself set goals. And realized that that's one of the things that I'd been using to short circuit

myself in fact, is focusing on the future thing. I mean, I kept saying when I was in the business, you know, well, I really would rather be doing this right now, but I'm going to do this because in two years it should pay off. And, you know, then it was next year, and then it was next year, and that future payoff business doesn't work for me. I actually don't think it works for anybody at this point, although it seems to. Didn't work for me.

Uh, and that led to the opposite extreme of, well, let's not have any goals, let's sort of, you know, take it day by day. And I'll barter, you know. I need gas? Well, we'll go up to a gas station and see if I can, you know, clean his floors for gas. The most, the real important thing is that we're together and that we're happy doing what we're doing. You know, I mean, if the house burned down and we were totally broke, we'd still be together. Is that more -- what's more important?

One of my lessons in all of this is to stop questioning the either why did it happen or, well, what's going to happen next. And just to say it's there.

In trying to juxtapose, find that, that center between being focused on the money and forgetting about it, and being able to be very present and do what I need to be doing in the moment and have that sometimes be making money, and maybe doing something just for the money, and have that be part of what I want to be doing too. And that's the real challenge, the growing edge for me right now, about that.

Analysis of Interview #11

The theme of this story has to do with work, and the conflict between earning money and doing what he wants to do.

For Participant #11 dissonance gradually increases after the pivotal event, the job change and move. He does not like his new job, and he begins to have health problems. He tries to maintain equilibrium: "I just sort of -- went on the assumption that somehow I could work it out, it would straighten out."

Things degenerate until he sees the homeopathic physician who recommends meditation, providing a useful

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piece of significant information. From here the process

begins of finding the new organization. He considers

quitting his job, talks it over with his wife, who keeps him

realistic about their options. He takes the first

Empowerment Workshop, where he has important insights about

the old organization, acquiring more significant

information.

He takes the second Empowerment workshop. During this

workshop he gathers more information from other people

because he is feeling "major stress". He acquires more

information from them: the idea that it is truly possible

for him to change. He considers this the turning point. It

is the initial kick of the process which leads to the

decision to change, which is the point of transformation:

"[It] built up and built up and built up and built up, and

then I decided, and all of a sudden, [snaps fingers] what's

the big deal? I mean, it was that, and it was like it

happened in a split second".

His response to the question about what might have

happened is:

>   I probably would have stayed there, maybe I
> would have gotten fired, and that would have been
> a positive thing in that case, or would have
> gotten really sick, or just something else, would
> have gotten -- something would have happened. I
> think things would have changed. Maybe gotten a
> lot worse first. But I just don't see things
> staying that way.

As with many other participants, the moment of

transformation is not the end of the story, but rather the

beginning of a process of adjustment to the new organization

and what it means in practice. He gives his notice at work,

comes to an agreement with his wife, and takes another job

that is more in line with his new orientation.

> He frames the change in terms of present vs.
> future:
> One of the things that I'd been using to short
> circuit myself in fact, is focusing on the future
> thing. I mean, I kept saying when I was in the
> business, you know, well, I really would rather be
> doing this right now, but I'm going to do this
> because in two years it should pay off. That led
> to the opposite extreme of, well, let's not have
> any goals, let's sort of, you know, take it day by
> day.

> He feels very different since the change:

> Before was striving and struggling, and now would
> be, uh, well, living and learning I am much more,
> feel much more centered and calm. Uh, feel, feel
> more energized, energetic, feel more like I'm
> learning, being able to play more, learn more, do
> more. Freer, feel more open, feel, uh, also feel
> more solid.

He does not consider the process finished. He sees

himself as having experienced both sides of a polarity, and

as trying to integrate the two:

> In trying to juxtapose, find that, that center
> between being focused on the money and forgetting
> about it, and being able to be very present and do
> what I need to be doing in the moment and have
> that sometimes be making money, and maybe doing
> something just for the money, and have that be
> part of what I want to be doing too. And that's
> the real challenge, the growing edge for me right
> now,

He wants to redefine work and personal freedom so that they

are not opposed--work is not necessarily something he

doesn't want to do, and working for money does not preclude

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personal satisfaction.

His chapter divisions are very complex, but do shed
light on the process:

> Prologue, that being the part before -- when
> I was just working and not feeling particularly
> well but not seeing anything to do but be in that
> situation and sort of deal with the externals.
> Introduction to the First Part is when I started -
> - came to the workshop with R. Umm, and sort of
> starting to learn some tools.
> Sifting would be the first chapter. I'm sitting, I
> make myself walk at work, I'm going out and sometimes
> meditating out on the lawn at work, and being more
> present there. Now, how do you integrate this stuff
> into work? How do you know when to make a change?
> Insight, that's -- would be the advanced
> empowerment workshop. Seeing how I've stopped myself
> and blocked myself in some ways.
> Realization and Decision. Realizing that I needed
> to leave and deciding to leave. And that incorporates
> telling L. and not having a date yet.
> Turmoil at home would be the next chapter. That's
> sort of the fallout, and L. and I started to go see a
> counselor and try to figure out how we're going to deal
> with this.
> More insight I guess is another....deeper insight.
> Sort of realizing that.
> Giving Notice would be another chapter. that's the
> end of the first part also.
> Epilogue to the first part is, finishing details--
> just the working out of health insurance and when I'm
> actually going to leave and....
> The second part is when I started working for R. -
> - that's the prologue for the second part, because I
> was doing both jobs at once there. So that's a new
> beginning.
> Catching Up and Settling In. Catching up on a lot
> of stuff, house stuff, and things that were supposed to
> have been done last year and never got done. Also
> things that never were planned on me doing that I'm
> doing and not worrying about stuff. getting a schedule
> worked, sort of getting a new routine.
> And the third chapter is the ongoing adventure,
> which is where I am now.

He sees it as a constant process of reorganization,
rather than a disintegration and reorganization. He marks

all of the events, turning points, and significant
information that went into the new organization and its
integration into his life.

Participant #12

This story took place very recently, when the participant was 33. This is the story of an intentional change, where the impetus for change is the participant's will to grow and develop herself.

After a year of working with my therapist on what I thought were career issues but were really separation and individuation issues with my family and my folks, I decided that when my parents were going to visit this time that I was going to talk about the bad things that we don't talk about. And that was that when issues came up that I would probe, which normally what we do is just to drop it.

Normally what happens is -- would happen is that my father changes the subject or just, uh -- for instance, with the bed and breakfast a couple of years ago when they came to visit. I took them over to see it, and this is a descriptive pattern of what happens, and I said this is the bed and breakfast house, this is the one we're going to buy, and what happened is they kept walking and didn't look at, and they would turn their heads, just kind of nodded... Yeah, just kind of nodded and talked about something else. So, that was normal. I never recognized that as being abnormal, that was just kind of a -- I thought that was how it was supposed to be. With the bed and breakfast place, I was not ready at that point, and I was devastated by their reaction, and so it made me want support even more.

I already had some messages from them -- two situations, messages from them about the house and how they didn't like the idea of the house, me buying it, and they didn't like the house period, because they saw it. Umm, what I decided to do was to ask them, you know, what it is about the house they didn't like and so we got at some concrete pieces.

So the times that my father would change the subject I would bring it back to the house. And at one point we were in the car driving to a restaurant, and I was so distraught about what they were asking me and the, the process, that I couldn't find it. I'd been there many times but I was going around in circles around these blocks.

And finally I burst out crying and I said -- because it was a very core level, I said, you know, one of the things that -- I'm not sure I'll get this right -- one thing that I recognize or realize, and it wasn't this rational because I was crying, is that you don't think that this is a good idea, about me buying the house. And I said whether or not you approve or not, it doesn't matter, I mean it's -- I would like it if you approved but if you don't approve

there's nothing I can do. But the thing that worries me,
kind of bothers me, is that you won't love me anymore if I
do this.

And I was crying and my father was crying, he was in
the front seat, and we were -- and he was saying, you know--
and I said, just tell me that you don't -- rather than
asking me all these questions that lead to me understanding
at some level that you don't approve, just tell me you don't
like it and tell me you don't approve. But, you know, I
need to know if you're going to still love me or not. And
my father was crying, was saying, you know, you're right, I
don't think it's a good idea and I'll always love you.

But the turning point in that whole piece was what my
mother did. She was in the back seat in a very nervous way
saying there's no need to cry, it's all right, you know.
It's all right, it's all right, we don't need to get upset
here. In a real nervous way.

And I got that that's what I grew up with, that that's
why I don't express my emotions, that's why I can talk
emotions but I don't feel them. And it just clicked for me.
It was a turning point to recognize that. So, so that was
the major piece.

I also saw the same thing happen, we were in Boston and
D. was playing down at _____, his group had a gig down
there. And we were on our way, we were going to go there
that day, and I told them, you know, that --I've never --
this is another piece about a turning point in terms of
recognizing things with my folks is I -- for the first time
ever I told them about a person I'd been seeing. I've never
told them anything about relationships. And I never
realized why until this time, which is the same thing that
happened with the bed and breakfast. They -- their silence
-- they listen, they don't interrupt me, then they change
the subject. So I don't ever get any recognition for that,
so why tell them, because it's a very vulnerable place for
me.

So I told -- I said I'm going to do that this time,
and I told them about D. and that's when I realized that
that was the pattern, was when they changed to subject. And
they didn't talk about it at all. At one point just in
passing my mother looked at me with this -- she had like a
scared deer look that she gets, and said, now C., this isn't
serious, is it?

Anyway, so we went to F_____ and D. was playing. And
as we walked up -- the other people were around him -- as we
walked up he was playing and he saw me, and I looked over
and my folks were gone. Just pptshoooh. Disappeared. And
evidently went into a store. I mean, I -- it was just, it
was the same thing as the bed and breakfast. And then when
they came back, I introduced them to D. and they shook hands
and there was no -- after that there was no conversation at
all.

And, uh, well, there is a turning point with this, which comes afterwards. My sister-in-law, S., in T_____ - - my mother went down there about a month after she saw me, and -- to visit J.(nephew), and R. (brother) and S., and I had told S. and R. what had happened because we're close, and so my mother did talk some to S. about what happened.

And what S. told me about was -- without having to go into it, was, it was more of the way that I did it, the way that I related to them and the way that I introduced D. was very different from their way. They had different expectations of how that would happen. Literally, concretely, like I would invite him to dinner rather than introduce them.

And I had a real, umm, kind of a very deep sadness that happened as she was talking about this, because it was a realization that it was never going to be how I wanted it to be. Real sadness, that it's going to be different, that it's -- but I need to just move forward with whoever I am. On of the things that I realized that a part of me was really leaving, and I was disappearing, and there was a loss ...it was a part of me that had been in relationship with my folks the way I had been with them, and that was not how it was going to be any more. And, that, uh, but I was going to have to let go of that support. My image has been that that's where my major support is. And the truth is I've never had support there . . . at all. I've had things given to me, but I haven't had support -- material things given to me, no acceptance of who I am.

My folks call at least once a week, always have. And it's different in that I, uh, in some ways I don't look forward -- I don't not look forward to it, but I don't have any energy there for their call. I did once since then, but other than that -- and I also am much more cognizant of how surface the conversation is. And -- I guess I have been cognizant of that, and I'm just more accepting of it, that that's what it is. That's how it's going to be. And there's sadness with that too, every time I talk to them. Sometimes on the phone there's been times when it's been like I'm glad that's over with. It's hard for me to say that. It's kind of like, well, got that over with.

And I guess it has freed up the career stuff, because I know, you know, that I've always been very fearful in talking with them about changing career, as what happened with bed and breakfast, know that it influenced me. And I don't have a sense that it would be influential anymore. I think I'm different by being connected more to what I want and how I want my life than how they want it. The major thing is that I went ahead and bought the house. And I am still managing my relationship with D.

I don't know why this has happened but it has, is that my relationship with R. and S. has changed dramatically. I never felt as close to them as I do, and part of it is, in

particular with R., we've never -- he was here visiting soon after they were here. And he was -- he really was there for me. And I've never had a sense that -- even though I've really admired him and had some, have had a good relationship with him it's been more of a -- it hasn't felt quite as peer _____ and supportive.

Analysis of Interview #12

The theme is dependence vs. independence in relation to her parents.   She recognized five chapters: "Therapy", "Planning", "Mom", "D.", and 'Conversation with S.".

There are four turning points in this account. The first actually takes place in therapy before the story begins, when she made the decision to change her relationship with her parents. This was presumably the result of the realization in retrospect of a long period of unsatisfactory relationship with them, which escalated to the point that she went into therapy in the first place, creating a change in the system. This system is open to changes.

The second turning point is the scene in the car, where the dissonance increases as she tries to shatter the old system. She is reduced to tears, regression to an earlier level. She acts in a different way, and comes to a realization about her mother's influence on her: "that's why I can talk emotions but I don't feel them. And it just clicked for me. It was a turning point to recognize that." This is the beginning of the process toward integration.

The next major event is very similar: she chooses to

change the rules, receives the same response, and understands another major piece: "I told them about D. and that's when I realized that that was the pattern, was when they changed to subject". Dissonance increases, there is a turning point and new piece of information results.

The transformation point comes when she talks to her sister-in-law on the phone about her parents, and her sister-in-law provides some significant information that is the catalyst for a sudden reorganization. Participant #12 suddenly lets go, gives up, surrenders to the situation. She stops clinging to the old order, and is shifted immediately into the new one:

> And I had a real, umm, kind of a very deep sadness that happened as she was talking about this, because it was a realization that it was never going to be how I wanted it to be. Real sadness, that it's going to be different, that it's -- but I need to just move forward with whoever I am. On of the things that I realized that a part of me was really leaving, and I was disappearing, and there was a loss ...it was a part of me that had been in relationship with my folks the way I had been with them, and that was not how it was going to be any more. And, that, uh, but I was going to have to let go of that support. My image has been that that's where my major support is. And the truth is I've never had support there . . . at all. . . .I was going to need to take care of my own self and support myself.

Her parents' behavior and her response to it suddenly appear in a new light, redefined by her new point of view.

When asked what might have happened, she said: "My guess is that it would have been similar as with the bed and breakfast place. I was not ready at that point, and I was

devastated by their reaction, and so it made me want support even more." The cycle would have continued, presumable to eventually escalate to the point of change: "I think that it was inevitable for me". She recognizes that rigidity of response would ultimately have forced change.

She frames the difference in terms of her relation with herself: "I think I'm different by being connected more to what I want and how I want my life than how they want it."

She reconciles the conflict of her relationship to her parents by finding a place in herself that exists outside of her relationship to them: providing her own support and acknowledging what she herself wants.

Analysis of the Profiles

In analyzing the profiles, several stages of the process were identified. On the most basic level, the elements which emerged as invariant in the participants' experience consist of:

1. Previews.

2. Movement toward disintegration, which may include escalating dissonance, regression to an earlier level of functioning and/or attempts to regain equilibrium.

3. Movement toward reorganization.

4. Pivotal events, which may initiate the process, further it, or occasion the transformation, and can be referred to as turning points.

There is also mention in every story of an encounter with significant information which is indispensable to the process.

Previews may be pivotal events or significant information which gave the participant an inkling of things to come. They are generally incongruous experiences of the new organization before it has actually taken place. Two kinds are noted in these interviews: those which take place long before the process actually begins, and those which herald the new organization and begin to appear as soon as the motion turns toward integration.

Significant information appears in every story as information from either outside or inside which is used by the participant to further the process in some way. Significant information is the reason for the shift from movement toward disintegration to movement toward integration. Significant information is mentioned by the participant as such--some new input which was noticeably useful in reorganizing.

Pivotal events seem to take place in three possible places in the process: 1. the event which initiates the story--death, illness, traumatic event, and initiates the movement toward disintegration; 2. the event which marks the beginning of the reorganization (whether or not it marks the end of the disintegration), a kind of "bottoming out" (the moment at the window in #3) or just a fortuitous happening that adds the right information at the right time; 3. the event which marks the transformation or shift (the gift of toast in #1). These are not necessarily all present in any give story.

The same event may serve more than one function in a story. In interview #7, the moment of discovery of the husband's affair signals the transformation and the end of an escalating process of disintegration of the marriage, and also functions as the initial kick of her internal process of reorganization.

Participant #8 experiences a total transformation in the moment with her son; it is disorienting, irreversible, and definitive. It signals the end of a way of being in relation to her family and herself. It is also the initial kick in the process of reorganization and rebuilding, which is long and laborious afterwards. She spends a long time in figuring out what happened, adjusting to it and making changes in outward manifestation in her life. In this case all three turning points happen in the same event--the system simultaneously falls apart and is reorganized, although her consciousness cannot keep up.

In interview #9, quitting smoking is the resolution for the first change which centers around smoking, and the incident initiating disintegration of the second change which centers around loss and autonomy. Participant #9 experiences a transformation point in the moment when she decides to quit her job, but then experiences dissonance after that while she adjusts to her new self and finds a new direction. The transformation point for one process, her relationship to choice and faith, may be the initial dissolving kick for another, her relationship to work.

Other elements appeared often enough in the stories to be considered frequent elements in the process. These are:

1. Surrender or giving in.

2. The existence of a gradual and sometimes painful adjustment to the new organization.

3. The accompanying of the transformation point or
establishment of the new organization with:

Perceived irreversibility of change.

New interpretation of old information.

Perception of a new organizing principle.

Surrender or giving in to the process involves a
significant change in attitude toward what is happening.
Participants went from fighting the process to an acceptance
of some vital piece of information. An example of this is
in #12, who finally accepted that her relationship with her
parents was not what she had thought or wanted. Surrender
generally accompanies either the turning from disintegration
to integration, or the transformation point.

The gradual adjustment period occurs in experiences
that include a transformation point, as well as in
experiences that do not include this. In those without a
transformation point, this adjustment period culminates in
the finished reorganization. This period may be accompanied
by acute pain of loss of the old organization, and
disorientation and confusion about the new one. It may also
include attempts to integrate and manifest the new
organization into the life circumstances.

The change is frequently accompanied by statements that
indicate that the participant could not return to the old
way, and/or the new one seems so obvious that he or she

would never consider it. Sometimes the old way begins to emerge again, but never gains a foothold.

Participants mentioned a new perception which created a new interpretation of old information and required a change in way of being. For example, participant #12 sees her parents actions as unsupportive instead of supportive. This new perception leads to the new organizing principle. Participant #12 expresses this clearly : "And the truth is I've never had support there . . . at all. . . .I was going to need to take care of my own self and support myself."

In compiling this information, it is important to distinguish between those components which were noticeable to the participants, and those which were noticeable to the researcher but not specified by the participants. All of the components above emerged from the participants' own punctuation of the process, with the exception of one: the existence of a turning point when the movement toward reorganization begins to be apparent. This was not always apparent to the participants at the time.

This component emerged out of the interviews as a result of a similarity in many of the stories. The participants in those stories spoke of increasing dissonance, and then at some point began speaking of previews of the coming integration, or of the beginnings of integration, feeling better, etc. After looking more closely at the data, there emerged in each of those stories

Table #1: Components of the Process

Previews or advance changes-openness of system
#1   #4   #6   #8   #9   #10   #12

Pivotal event as beginning of disintegration
#1 #2 #3 #4 #5 #6 #7 #8* #9#9   #11   #12

Attempts to regain equilibrium in old ways(1st order change)
#1 #2 #3 (#4) #5 #6 #7   #10   #11

Regression to earlier level of functioning
#1 #2 #3   #6 #7   #10   #11   #12

Turning point to reorganization
  #2 #3 #4 #5 #6 #7   #9   #10   #11   #12

Previews of integration (joy, perfection) during the process
  #2 #3   #5 #6 #7   #10

Previews only follow turning point to integration
  #2 #3 #4   #7   #10

Previews during process before turning point to integration
  #6

Surrender
  #2 #3 #4   #7 #8 #9 (#10)   #12

Surrender accompanies turning point to reorganization
  #2 #3 #4   #7

Pivotal Event as transformation point
#1 #2   #5   #8* #9 #10 #11 #12

Transformation point not pivotal event--gradual integration
  #3 #4   #6 #7

Turning point to integration same as transformation point
#1   #5   #8

Period of integration/ dissonance following transformation
  #5(1st event) #8 #9 #10 #11

Perceived irreversibility
#1   #4 #5   #7 #8 #9   #11   #12

Clear new interpretation of old information
  #2   #5   #7 #8   #12

Clear organizing principle of new system
#1 #2   #5   #8 #9 #10 #11 #12

These components arrange themselves in several patterns
or sequences. These have been divided into two types: those
with transformation points and those without transformation
points. Variations within these categories involve the
existence or nonexistence of any component in the process,
such as a pivotal beginning point, a period of escalating
dissonance, or the existence of a gradual or painful period
of adjustment to the new organization. There are also three
patterns which differ radically from the general pattern by
the deletion of several stages.

Table #2   Patterns

Processes with transformation points

(#2)
1. Pivotal event
2. escalating dissonance/ disintegration (long)
3. turning point toward reorganization
4. previews of reorganization
5. pivotal event as transformation point.

(#12)
1. pivotal event
2. escalating dissonance/ disintegration (short, repeated)
3. turning point toward reorganization
4. pivotal event as transformation point

(#9)
1. pivotal event
2. escalating dissonance/ disintegration
3. turning point toward integration
4. Previews of reorganization
5. pivotal event as transformation point
6. painful adjustment after transformation
7. gradual integration into life

(#11)
1. pivotal event
2. escalating dissonance/ disintegration
3. turning point toward integration
4. pivotal event as transformation point
6. gradual integration into life

(#10)
1. escalating dissonance/disintegration
2. turning point toward integration
3. pivotal event begins transformation point
5. gradual adjustment to new organization finishes transformation

(#5)
1. pivotal event-preview begins disintegration or transformation point produces reorganization which is rejected
2. escalating dissonance/long disintegration
3. turning point toward reorganization
4.previews of reorganization
4. pivotal event as transformation point.

(#1)
1. pivotal event=disintegration
2. pivotal transformation point
3. painful adjustment to new organization

(#8)
1. pivotal event as disintegration and beginning transformation
2. escalating process of reorganization.
3. long adjustment (integration into life)

Processes with gradual transformation

(#7 #3)
1. pivotal event
2. escalating dissonance/disintegration
3. turning point to integration
4. gradual transformation

(#6)
1. pivotal event
2. escalating dissonance/disintegration
3. turning point to integration
4. previews of reorganization
5. gradual transformation
6. gradual integration into life

(#4)
1. Pivotal event
2. turning point toward integration
4. gradual transformation

This information is presented again in chart #2 in another form. This chart makes possible a visual comparison of the stages of the various experiences, and clearly shows which elements are common to which stories.

Table #3: Pattern and Sequence

Participant	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
Pivotal event	x	x	x	x	x	x	x	x	x		x	x
escalating dissonance		x	x		x	x	x		x	x	x	x
turning point to reorganization	x	x	x	x	x	x			x	x	x	x
previews of reorganization		x			x	x			x			
Pivotal event as transformation	x	x			x				x		x	x
pivotal event begins transformation								x		x		
painful adjustment after transformation	x							x	x		x	
no pivotal event-- gradual reorganization			x	x		x	x					
gradual integration into life				x		x			x	x	x	x

From an examination of this data, it is obvious that although it is possible to outline a general series of elements of which the process may be composed, no one process includes all of these elements.

Two theories may be derived from this information: one which takes into account on those elements which are common to all experiences, and one which includes all of the

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elements which appeared either in all of the experiences or in a significant number. If the criterion is the appearance in a significant number, say 50%, the theory would leave out several elements which seem significant, among which are previews of the reorganization, painful adjustment to the new organization, and any transformation which is not instantaneous. Even 25% would leave out important information, due to the small sample size. This seems unwise, especially since these elements may become important in further research. It is therefore more useful to derive a theory consisting of all elements which appeared to the researcher.

There are obvious pitfalls to this path. A theory is designed to bring order to chaos and profusion, and profusion certainly exists in these interviews. One researcher, one mind with inevitable bias, is hardly sufficient to catalogue all the elements which appear in the data, especially considering that in that same mind, at another time, different elements might emerge. In fact, a million researchers would hardly be enough, so great is the variety and subtlety of human experience. It is important to bear this in mind, and to realize that this can only be a theory consisting of those elements which emerged in the mind of one researcher, at one point in time..

A theory comprised of only those elements which all the

interviews have in common mentions only the larger motions
of things:

Something happens which begins a process of
disintegration. This disintegration is painful and produces
dissonance, which keeps the process going. At some point
along the way, some significant information is encountered,
which eventually forms the basis for the transformation of
the system. The movement eventually turns from
disintegration toward reorganization. This process includes
one or many turning points, which may come at several
different stages. The new organization is radically
different from the old one.

A theory comprised of all of the significant elements
of that emerged from the interviews is much more complex:

The process of morphogenetic change may be prepared for
long before it happens in either of two ways: a gradual
process of growth in the direction of the change, or the
experience of incongruous flashes of perception which
resemble the eventual end state.

The actual process itself proceeds thus:

A pivotal event sets in motion a process of
disintegration. This is usually an event, a death, illness,
or other incident which shocks the system and requires it to
adjust to something that it cannot encompass in its present
form.

Sometimes the event is so shocking that the system reaches sufficient disequilibrium immediately, and is shattered very quickly. In this case the transformation may follow, or be rejected. If it follows, it may require a painful adjustment that includes grieving for the lost organization. If it is rejected, the system may attempt to regain its equilibrium. This will only appear to be successful, and this attempt itself will eventually create enough dissonance to drive it to the edge again.

If this does not occur, the disintegration continues, causing dissonance, which escalates the process. The system often attempts to solve the problem with old coping mechanisms, which do not work, which increases the dissonance. Sometimes there is a regression to an earlier level of functioning.

Several things may happen in the middle of the process, during which time the system is very sensitive to any input. It may reach sufficient dissonance, and fall apart. A period of surrender may result from this. A turning point is possible, which may be a pivotal event, the appearance of some significant information, or the result of the surrender, and the reorganization begins.

The system may not reach maximum disequilibrium, but may continue to encounter significant information, so that the disintegration and the reorganization are happening simultaneously. The person does not experience a breaking

point, but at some point the movement toward reorganization takes precedence.

Generally after the movement has begun toward the new organization, the system may experience flashes or previews of it, brief experiences of existence on a higher plane.

The process of reorganization may be short, long, or instantaneous. The period of surrender may be a pivotal event which is the catalyst for the transformation point, and so this stage is very short. The process may be long and gradual and end with a transformation point when the system is sufficiently prepared.

The transformation point may be followed by a painful and difficult grieving and readjustment process, particularly if it has been very fast, and resulted in major life changes. It may also be followed by a gradual period of integration of the new state of being into the life circumstances.

There may be no transformation point at all. Instead the system may experience a gradual transformation, with no identifiable moment when it occurred. It may appear to be a long and gradual process which combines the movement toward reorganization with the adjustment to it as an unbroken continuum.

The transformation. once accomplished, may be perceived as irreversible. There may even be disbelief that the old way could have existed. The end state is qualitatively

different from the beginning state. It often seems surprisingly obvious after the fact. It may involve a new insight, gathered from significant information during the process, which the system is reorganized around. This new organizing principle provides a new frame of reference for interpreting previous events and reactions. The past may take on new meaning, as may the present and future.

Findings Related to the Literature Review

This section will compare the experience-based theory derived from the interviews with the process description derived in the theoretical section.

It is interesting, in beginning this comparison, to return to two descriptions of the process. The first is Lynn Hoffman's, a somewhat behaviorally oriented description:

> The natural history of a leap or transformation is usually as follows. First, the patterns that have kept the system in a steady state relative to its environment begin to work badly. New conditions arise for which these patterns were not designed. Ad hoc solutions are tried and sometimes work, but usually have to be abandoned. Irritation grows over small but persisting difficulties. The accumulation of dissonance eventually forces the entire system over an edge, into a state of crisis, as the homeostatic tendency brings on ever-intensifying corrective sweeps that get out of control. The end point of what cybernetic engineers call a "runaway" is either that the system breaks down, creates a new way to monitor the same homeostasis, or else may spontaneously take a leap to an integration that will deal better with the changed field. (Hoffman, 1981, p. 56)

This matches the processes as outlined by Prigogine and by Rabkin, involving a period of increasing dissonance, positive feedback processes and a sudden and discontinuous leap.

This pattern is not present in its entirety in most of the experiences of the participants. There is not always a long (or even a short) period of escalation; sometimes the disintegration is instantaneous. There is not always a recognizable moment which could be called a "leap". Sometimes the change is described as gradual change, sometimes it is described as a period of recovery before which the new organization did not make sense, although it may have existed. Some participants need time for consciousness to integrate the change before it is recognizable. Certainly this description would not serve as a model. It is presented as a sequence in an order in which each new stage results from the last. The process varies too much from this sequence, although in spirit they are very similar.

The less behaviorally and more structurally oriented description by Caple diverges less from the participants' experience:

> Fluctuations are created by the continuous
> flow of energy through a system. Many
> fluctuations are absorbed and adjusted to by the
> system without altering its structural
> [organizational, in Maturana's terminology]
> integrity. This is called first order change. If
> and when fluctuations become sufficiently
> turbulent and increase the number of different and

significant interactions within the system, which results in elements of the old pattern interacting with each other in new ways, the system transforms itself into a higher order in which structural [organizational] changes do occur. This may be referred to as second order change. Each new level is more integrated and connected than the previous one, and requires a larger flow of energy. (Caple, 1985, p. 175)

This description provides a bare outline which seems to correspond: the components of a system are fluctuated beyond the parameters of the system, and it reorganizes itself to include new relationships between components. The basic message of this description is that things have to come apart before they can get put back together differently.

Any one of the participants' initial pivotal events can be seen as resulting in turbulent fluctuations which produce unaccustomed or new responses which are outside of the system's customary ways of adjusting to fluctuations. "Elements of the old pattern" interact "with each other in new ways". Participant #1 connects his perceptions of others with his perceptions of himself in new ways, #2 relates separateness and trust in new ways, #3 reacts to death in a new way, #12 relates loss and independence in a new way, and so on for each participant. Some of these new connections contribute to the disintegration, and some form the organizing principle for the new organization.

Let us turn now to the crucial elements of the theory and examine them in the light of the participants' experiences.

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Beginning state

The first attribute of the system which is necessary for morphogenetic change is openness, internal and external. One participant (#1) specifically mentioned an openness to change. Participants #6, #8 and #12 were involved in a process of growth and development when the pivotal event occurred, #4, #9, and #10 had had experiences previously which predisposed them to the change. These circumstances would tend to indicate this condition was true in the majority of the cases.

Another attribute that may ultimately lead to change is rigidity of response. Participant #3 may be an example of this, when she persisted in her lifestyle despite increasing nervousness. Participant #5 is also an example of this. At the initial experience, the first transformation point, rather than reorganize, she returns to the status quo, which proves impossible in the long run and drives her to the edge again.

Another attribute of systems which reorganize is hierarchical organization and differentiation. This attribute may be represented by the fact that these are complex human beings capable of doing many things at once. Participant #8 is a good example of differentiation--she is able to function independently as a student, as a mother and wife, and as an adult worker. The change comes in the realm

of mother and wife, and she continues to function normally in other areas. Even within this area, at the moment that the change is occurring, disorienting as it is, she continues to function as a mother, considering the effect of her state of being on her child and modifying it. Other participants show similar divisions although not so clearly.

The process of change

The process in the theory begins with an initial kick, as a result of which the system is required to go beyond its parameters. Only one story (#10) does not begin with an identifiable pivotal event. Each participant (including #10) was faced with the integration of some new circumstance which requires major redefinition of self.

Each participant is driven far from equilibrium in the process of reacting to this circumstance. They all experienced dissonance, although this dissonance increased in varying amounts. For some it reached its peak immediately or soon after the initial event.

Nine participants gave evidence of trying to restore equilibrium according to old coping strategies. Participant #2 tried to stay connected to her father by being like him; #7 tried to redefine her marriage to keep it together rather than redefine herself; #11 tried to think that his job would improve and that he could keep it, etc. None of these

coping strategies served to restore equilibrium, and some of them made things worse.

All the participants were initially involved in resisting the change, and thus were involved in a polarity in which they were aligned with one side. Participant #1 screams "No, no, no", participant #2 tries to continue to function, participants #3 and #4 are terrified of their illnesses, and so on. They are involved in the struggle between stability and change, and are dealing with what appear to be mutually exclusive elements. These mutually exclusive elements are the themes of the transformations:

#1 relation of self/other, wife/no wife
#2 separateness/connection
#3 stress/health, control/loss of control
#4 life/death
#5 everyday consciousness/consciousness of connection to universe
#6 emptiness/life direction
#7 family/individual, old/new self-definition
#8 dependence/competence
#9 smoking/not smoking, bondage/freedom
#10 living in the moment/committment
#11 work/personal satisfaction
#12 dependence/independence

The next aspect of the theory is the existence of positive feedback proceses, set in motion by the initial kick, which serves to further the disintegration. This was often mentioned. For #1 and #8 the disintegration occurred too quickly to count this as a process which was experienced.

It is not clear what more differentiation and separation of components, the next aspect of the process,

would mean in these cases. It is clear, however, that regression to an earlier level is one response that some participants had these events.

There are very few clear statements that the system had reached maximum or sufficient dissonance at any particular point. This was not a perception of most these participants. No one said that things got so bad that they could not get worse, or that they perceived a breaking point, with the exception perhaps of #2. This seems to be true for #1, 8, and 9, but it is not expressed as such.

At this point the participants add an element of the process that does not appear in the theory: the point where the process turns toward reorganization. As mentioned above, this is also not part of the participants' expressed experience, but appeared in every story, and so warrants mention here. There seems to be another event, or a piece of significant information that appears at some point in the process. This could be seen to be the second initial kick which sets the reorganization in motion if it were not for the long periods of time between the two events in some of the stories. In the theory, the process happens suddenly; in experience this is not the case.

This turning point sometimes coincides with a kind of surrender, or acceptance of the process, but not always. Sometimes the turning is the result of information which begins to provide a new organizing principle. The stage of

surrender is certainly not universal, and there does not
seem to be a "neutral zone" or "incubation period" of
relative calm when the old order has broken down and the new
one has not yet formed, although sometimes the
transformation point is accompanied by a surrender.

In all cases the participants were more than usually
sensitive to certain sources of new information while they
were far from equilibrium, another crucial attribute in the
theory.

The shift

The theory then moves to the bifurcation point.
Although this did appear in the stories, it was by no means
universal, and when it did occur, it was not always
dramatic. Rabkin's "saltus" does not seem to be "sudden",
"complete", or "outside of time", (although those that are
dramatic do seem to be "triggered"), at least in the
perceptions most of these participants. Even #1 did not
perceive the incident with the toast as the major turning
point, although he did consider it very significant.

A possible explanation for this is found in the fact
that we are dealing with a complex situation in which there
are many other contents of consciousness at the same time.
Participant #1, for example, is preoccupied with the pain of
his loss, and it is no wonder that at that moment in the
hospital he does not stop to mark the reorganization of his

relationship with other people as the main event taking place. The key factor here is to identify and define the system which is undergoing change, or to define which process is transforming, since the perception of the transformation is influenced by subsequent or simultaneous processes in the same system.

Another explanation for this is the fact that we are dealing with human consciousness, and the report of the perceptions that this consciousness has of the process. In many of the stories the transformation seems to take place, but there is a period of adjustment while the consciousness works to understand and integrate the change. At any rate, it appears to be possible to go through a radical system reorganization without being conscious of a point of transformation.

It is possible to say, however, that the transformations which occurred, whether by dramatic shift or gradual recovery, were in fact centered around a "meaningful source of the random" which participants derived from either internal or external sources and which was used as a central principle of the new organization. The change was a result of internal processes as the participants discovered something new or made new sense of their experiences.

End State

The characteristics of the end state in the theory describe the end state in experience fairly well. The new organization is built around something new which forms the organizing principal. This organizing principle involves a co-existence of what have been perceived as opposites. These opposites appear different in the context of the new organization, they have different attributes, properties, qualities. The issue appears to be simple and clear in many cases--a satisfying new way of looking at things that involves less struggle.

This new equilibrium may not, however, appear right after the transformation point. The participants' experience adds a whole new section to the process: the aftermath. A period of adjustment is sometimes necessary, sometimes accompanied by considerable difficulty, as the system adjusts to the loss and the new organization.

Summary

In summary, many components of the experience are present in the theory. All of the components of the theory exist in some story, but none appear in all stories. It is clear from these twelve interviews that the experience of human beings is not nearly so regular, in terms of stages, as the theory of system change would imply. It is also

clear, that in spite of this lack of regularity in stages, the processes are very similar in many ways, and all consist of basically the same components, even though no single component is universally present.

There are many similarities, and several crucial differences. Although the process in essence is similar, that is, involving a disintegration, a reorganization, and the processes accompanying these, the differences are significant. The participants' stories serve to emphasize the uniqueness of human experience, and the fact that human beings are not predictable, and do not follow prescribed paths.

Although it might perhaps be useful if one could describe an invariant sequence of morphogenetic change which could then be used as a model to assist in the process, the fact that the processes differ offers another sort of comfort.

There are as many forms that the process can take as there are human beings to undergo it. The fact that there exists a general blueprint means only that there is something to have faith in: it is possible to change. The fact that the process differs so widely means only that it is pointless to compare one process or one person with another. The process of morphogenetic change is a celebration of human ingenuity. We create endless

variations on the theme in the process of our personal
evolution toward integration.

The fact that the process can vary so widely is the
first piece of information that is directly applicable
toward facilitating it. This variation indicates that
creativity is at work in even the most difficult and
terrifying experiences of change, and that whatever form the
process takes, it may end up at the same place:
transformation on a higher level. For the person assisting
in the process, this is an essential frame of reference.
For the person undergoing it, it offers an inexhaustible
source of hope and faith.

In the next section, other information applicable to
the facilitation of the process is gathered from the
participants.

Assisting the Process

The purpose of this investigation is not only to
compare the theoretical process with the experiences of the
participants and to demonstrate their relationship. The
larger goal is to shed some light on a human process of
change in order to learn something that might enable us to
facilitate that change. The process of morphogenetic
change may be experienced as very painful and difficult by
those undergoing it. They are often surrounded by people
who do not understand what they are going through, as they

do not understand it themselves. They may ask for help or not, but for those who would like to help them, be they therapists, teachers, medical people, family members or friends, any information to this end may be welcome.

Participants were asked several questions to gather information about facilitating the process. The answers to these questions have been compiled here.

Each Participant was asked to comment on anything that was helpful or noticeably not helpful while they were undergoing this process.

Connection with other people was important to several participants:

#1   Just giving me attention, showing concern, just the most basic things.

#2   One of the other things that was helpful was being nurtured, finding, working with a therapist in this time who was very nurturing and who was just there for me.

#3   It was important to be able to talk to people, and, well, different people did different things, but I think they all in one way or another, professionals or friends, what was important that they express a quality of kindness and compassion.

#4   And another thing is that I did share with my children, who were very young at the time, everything that was going on with me. I would cry with them and I would tell them I was scared, and I would just share exactly what was going on with me. They were the only ones, surprisingly enough, that accepted my sharings.

#6   I saw one counselor at _____.___ who had been trained humanistically, and what he told me is that I would get better and that I should do things that I liked myself for. Two phrases. And I, you know, I remembered those phrases through the whole

thing, just two phrases. So, just encouragement and belief in me.

There was one more thing that was very helpful, is that my mother is a very patient and giving person. And so I -- when I was on that medication, when I was living with her, I wasn't functioning very well, and, like, I would just get depressed and just want to sit in one place and not do anything. And she would, very gently and lovingly, like take me -- almost take me by the hand and say, J., let's go look at the flowers or -- you know, just great love coming my way.

#7   People. I think people helped me. A counselor that I was seeing helped me.

These people provided information, love, validation, and guidance for the process.

#3   And it helped me to talk when I was very depressed. It was important to talk because that would, you know, let me, try to articulate what I was feeling, to my husband, for example. They listened, and they didn't say, oh, it's nothing, you know. They just -- but at the same time they didn't let me, especially the therapist, they didn't let me spin, spin in this stuck place.

#3   The stress manager, for instance, made me see that I was really grieving for something, lost of illusion. And it was OK, and it was OK to go through, and it was OK also to cry, that I should cry, not -- I felt like I couldn't even cry because that would make my blood pressure go up. So she sort of gave me permission to do that and that really helped.

#9   Just having, you know, having a friend that would say things like, when a door closes another one opens, or, you know....
People who could give me a world view of the universe that was trans-rational. Because, you know, I was schooled in rational thought and academic ....

#10   There were many things that helped me, like, like what the astrologer said, for instance.

#12   Therapy, recognizing how. . . dependent I was in what I viewed as support from them [my parents].

One person mentions support from other people, but clarifies that one should not rely entirely on validation from outside.

#5   I think validating the experiences was the most helpful, but I had to do a lot of it on my own. Individuals were helpful to get the process going. That I was able to communicate from not a mental environment, but the stuff that I was sharing with them was coming from much deeper within, and that they were saying that that was valid and that was OK, and we're not discounting anything. I then realized that the validation I need would have to come from within me and that I no longer -- there was a point when I needed to hear it from someone else, and occasionally I still do need to hear it from someone else. But the only one who can really make it true for me is myself.

When there were no people in this supportive role, the participants mentioned their absence, and the absence of support from people from whom they might have expected it:

#4   My adult family members would not even want to hear about me being scared. My friends didn't want to even talk about me, about cancer. Everyone would freak out about it. And it was very lonely.

#10   Most of the people around me thought I was crazy. And I, I don't feel like I got a lot of support one way or the other, either negatively or positively.

#8   I didn't have a way of getting any help or support. It wasn't a skill I'd developed yet [laugh],

#8   I think it was a real lack of support [From husband's parents].

They also mentioned interactions with others that were not helpful. Too much, or the wrong kind of help was not helpful:

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#1   There were times when people were being too
      helpful. I mean, there was one time, you know,
      they said, well, we'll get you something to eat,
      blah, blah, blah, blah. And it was like, I just
      wanted to be left alone.

#2   What wasn't helpful was people who gave me advice or
      having to be there for other people. Many times when I
      was really needing to be there for other people.

#3   I guess friends of people, with good intentions,
      would say, oh, well, that's nothing, you know, I
      mean, everybody has high blood pressure and don't
      worry. Just take drugs, that's nothing. I could
      see that it was meant well but it didn't do much
      help. It didn't help me any.

#5   My family. Umm, they were sort of supportive in
      sort of like a five-year-old, pat her on the head,
      she'll be fine type of attitude. it was OK for
      them to give me the space but what I didn't need
      was the five-year-old, pat her on the head
      attitude. This is just a phase she's going
      through.

#7   My father. He worried about me. His way of loving
      me. He also worried a lot about a children, which
      wasn't helpful. That was the worst thing, that
      was the least helpful. I was trying to stay clear
      and positive, and every time he'd call on the
      phone it was just this dark cloud.

#9   Most therapists, no. No, it was -- and in fact it
      was damaging, a lot of the therapy was damaging,
      because they kept harping on pre-personal issues,
      and although they were clearly pre-personal
      issues, the outlook was not pre-personal, it was
      trans-personal. And I felt like no one understood
      that.
            Living in a world where everybody was telling
      me that there wasn't something more, wasn't peace.

#6   The medical profession really didn't understand
      what I was going through. And because of that
      used a method of treatment that wasn't helpful. I
      mean, it may have deadened some of the pain that I
      was feeling, but it also caused me not to be able
      to read, because my vision was blurred, not be
      able to drive, and not be able to sit in the sun
      during the summer because of the side effects of
      the medication. So it alleviated a

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little bit of inner pain, but it caused me all
kinds of other pain. So, uh, I can't really say
that it helped.   It was not always misguided
help that was unhelpful, but also negative
attitudes on the part of other people:

#3   The attitudes that, indeed, it was my fault, that
       I was like that because I was so nervous and just
       an hysterical woman, and just the careless
       attitudes like saying, oh, my god, this is high
       [blood pressure]. And
#7   Something about the way my friends acted. It
       seems like people withdrew from me for a while,
       because they couldn't handle my -- nobody could
       believe that it had happened. I mean we were like
       this ideal couple and nobody could believe it.
       And I guess they needed to pull back because they
       didn't want to touch it with a 10-foot pole, you
       know.

#11   L. [wife], her fears around that and her being
       upset about that and tense and fearful and so
       forth, and insecure, all the rest of it, I'd say
       is an external factor, -- I don't know if they so
       much impeded it -- when I think of impeded I think
       of something that I sort of accept as an obstacle.
       I didn't specifically accept it as an obstacle,
       but it was something else that I had to deal with
       at the same time. So to make an analogy, I'm a
       train and I'm going down the track. I didn't hit
       a wall but I got into some deep drifts. So she
       was sort of part of the deep drifts, so I was
       still going and I'd like -- there was no real
       obstacle, but it was like more stuff I had to deal
       with.

To one person it was important to be away from people:

#2   Time to be alone and away from my familiar
       environment. And time to just, just totally
       unstructured time. Time when I wasn't
       concentrating on anybody else. It enabled me to
       have moments of, "Yeah, something about this is
       just right." it discouraged me from distraction.

Other people had other internal or solitary resources

that were helpful:

#4   And I remember that what helped me with really
       being with the fear and being, you know, with

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whatever was going on with me moment by moment was my, my study of, uh, Vipassana meditation, which I had done before somewhat. And with just like being more in the moment with what's true for you and just going into it. I never have taken any pills. I never have taken anything to sleep or anything. I mean, sure, at the beginning I had a hard time sleeping and I would be scared. I would just be with it. And I find that it just kind of started moving, because I was with it. I allowed it to be there.

#4   Getting in touch with my highest values I think was another thing that helped a lot.

#7   There were several books that were really important to me during this time. One book during that time was The Aquarian Conspiracy. There's a chapter in there on relationships, and I started seeing that my view of relationship was very narrow from reading that chapter.

#9   Writing a journal was extremely helpful. Any act of creation, the creating, stuff that I could create -- my work, the advertising that I could create, was helpful, and the writing was very helpful. Reading. I read everything I could get my hands on. Every psychology, trans-personal type psychology book I could get my hands on.

One participant did not recognize that anything was not helpful, but saw everything as part of the process:

#12   Doesn't feel like it [that there was anything that was not helpful]. It feels like all the way along what happened was what needed to happen to....

From the answers to these questions there is not much doubt as to what is helpful from other people: acceptance, validation, understanding, compassion, respect, love, encouragement, good listening and information. What is not helpful is advice, making light of it, condescension, patronizing, worrying, mis-understanding, blame, and withdrawal, or any other unsupportive behavior. This is

important information for those in the position of influencing or assisting the process.

Information for the people undergoing the change is also valuable so that they may understand more about what is happening to them. Participants were also asked what advice they would have for other people going through a similar process. The answers to this question add some more information which is useful to an understanding of the process and how to facilitate it.

Four people stressed finding support, primarily from other people:

#1   They probably need to know that they're not alone, and that other people have experienced what they're experiencing, and other people -- there are other people in the world who do understand how you feel, and they do understand what they're experiencing. And they're not totally isolated and alone.

#3   Really try -- I know that it's hard when you are feeling so bad, you know. You think that people don't want to hear bad news and listen to you, but people do, people really want to help, and it's very important to find other people to listen to you and support you. Maybe it doesn't necessarily mean people. It might be going out in the woods and to a beautiful place, and just be....

#7   I guess I would say to really find out what supports you, you know, in your life, like your friends, you know. For me it was being outside, taking walks, nature. Also to find a counselor....somebody who's -- I don't think a friend could handle all the deepest grieving.

#8   Just that idea, that one like a seed, you know, that you have to go through it, that you can't protect them from it. You can only help them survive it. You know, give them the strength, the support, you know.

One person stressed the importance of finding the right
kind of help:

#6   Well, the first thing that came to my mind was to
stay away from the medical profession. Uh, but
it's hard to know who to go to. I think
definitely try to get help, but -- it's hard when
you're in a crisis to take the time to evaluate
whether you like your therapist or not.

One person recommended talking to other people, but in

the context of information that will help with intentionally

finding a solution:

#11   Talk to other people. I mean, you know, do -- I
mean, if you said you were thinking about
something, I'd say, do you really feel it's
possible? And talk to people who are doing it.
Explore it. Try it on a smaller level. Bring it
into the present and try to find a workable piece.
Make it manageable, and look inside a lot. Uh,
learn some sort of intuitive skills. Take a
workshop. You can become conscious of what you
want to be doing right at this moment.

Eight of the participants stress awareness of the
process and allowing oneself to experience it fully:

#3   And let your fears and your feelings of fear or
sadness, just let them come out and don't be
afraid of them, just let them come out.

#4   Stay with what's meaningful. Exactly. Being in
the present, living moment to moment. Staying
with what's going on. And really make choices
about what's more important to you.

#5   So it's just, like, hang out with it and it's OK
to be -- as miserable as you may be feeling it's
OK to be there and accept that and work with that,
and don't fight it but welcome it as a gift, as
something to work with rather than fighting
against it.

#6   I like to think that if I had had enough support I
could have explored -- well, maybe, I could have
explored the material that was coming up as it

came up. Because it was all available to me, it
was right there. All the feelings, all the
memories, and just gotten it cleaned out.

#7   Just to really let it out and to really grieve as
      much as you can right from the beginning. To let
      the feelings come out, the anger and the sadness
      and everything. I mean, the advice is that, you
      know, there's a lot that you're going to have to
      go through anyway, no matter how you do it, and
      you might as well get all the help you can to go
      through it, support around you. It also includes
      spiritual help of some kind. Whether you've got
      the source already, within you, or, you know, find
      somebody or something that gives you that
      strength, outside of yourself.

#9   I guess I'd say just, just whatever feeling comes,
      allow yourself to feel it and, and don't judge
      yourself for it. And know that this too will
      pass. To allow the grief to wash over you. . . .

#10   To just really honor what is happening instead of,
      like, trying to distract yourself from it by
      making more superficial changes or whatever. Just
      to make space for it, to really be there.

      Three participants stressed being able to see past the

immediate stressful experience. For them it was important
to have faith in the outcome:

#2   Aphorisms come to mind. . .Let go and let God.
      (laugh) Yeah. Uh huh. Just...even if you don't
      believe it, hang on to the fact that you'll make
      it through, and that there's a reason behind
      everything. And that some day you might know what
      that reason is.

#5   Don't give up. Don't give up. The only advice
      that I can give is, as messy as it looks, it gets
      better. There is a light at the end of the tunnel,
      the smoke does eventually clear. And it's sort of
      like the longer that you -- maybe the more you're
      feeling distressed and the more you're struggling,
      and the longer it goes on, it's like at the point
      where the smoke clears, that's the -- the next
      experience is that much deeper and that much
      sweeter. It's just so much more intense.

#9 To know that that [grief] gives way to another place, and that --and that when you feel most misunderstood and alone, know that, that it --that whatever you need will be there. And, you know, if you have faith, if you just ask for it, it will come.

#12 Trust the process. I did really, uh -- and I paid attention. I think part of it was for me that, as my therapist said, you know, this isn't life lab, you know, this is the real stuff and, hey, you know, pay attention, enjoy it. There's a lot of learning here, and I did. I kept moving through it and paying attention. I think I could have easily done it without paying attention and not been where I am now.

The answers to this question emphasize the need to find the right kind of support. Two other very important ideas are also expressed. The first is the need to allow the experience in all its intensity, to feel and acknowledge all that one is going through. Stay in the present, pay attention, do not run from the process.

The other important aspect is trust in the process. Keep your perspective, believe that you can make it through and that there is a purpose behind it. In order to take this advice, it is useful to have some knowledge of the process, that others have gone through it, and that there is indeed a purpose to the disintegration, because without it there can be no new organization. This study can potentially add to this general knowledge, and in that way furthers the processes of morphogenetic change happening in the world.

Participants were asked about the relationship between the difficulty that they experienced and the amount or

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quality of the change that they underwent. This question was designed to discover whether people who have finished with this process perceive the disintegration to have been necessary or valuable in retrospect.

#1   I think that -- I think it has to do with how seriously they were injured. I mean, if they were just lightly injured, it would have made me think about, really, my values and everything like this, and if they had been really seriously injured I'd have been more seriously impacted. Yeah. And if they were killed, well, you know, there's just no going back. It was total, total.

#2   I think it would be hard to acknowledge the existence of something else had I not been so incredibly uncomfortable. I think it would have been really hard to let go of the comfort of familiarity if there was the slightest comfort. I don't think it is a step I would seek out.

#3   I guess the higher the obstacle, the more, the more you have to dig inside for your own resources. Because if you just have a little obstacle, you just take a little jump, you don't have to stretch that much. I love ....to be happy and to enjoy this life of pleasure, but I know also that the times we're most alive in a way is in times of pain. And for that reason I think there's much opportunity for learning, just because you're so awake.

#4   I think that the more serious the problem, the more you change. I think that crises bring changes, and, I mean, at least in my experience ... and what I've noticed is that when I'm confronted with challenges that are not so powerful I sort of roll by and go over them without making too much effort. But when the challenges are really tremendous and enormous, then, then, then there needs to be a lot more commitment and a lot more...

#6   I experienced the high, you know -- by going . deeply into the shit I experienced the beauty of life too, and they were like equal.

#7   I think it's true, you know. If you -- how much

loss or you have is directly proportionate with how much change you are able to go through.

#8   From here where I am now I can look at that and say that the struggle was immense. I would have never been able to say that while I was in it because I just don't do that, because there are never any problems (laugh).

#9   The only way to give up cigarettes, was to say I'm hopelessly addicted. I had to give myself over to another power to do it because I really felt that I did not have the strength to do that myself. And I didn't.

#10   I think that if I hadn't been that uncomfortable I probably wouldn't have been that driven to, you know, search. In particular, one of the -- one of the major decisions in deciding to go into therapy with P. -- I mean, I had never really experienced a fear before like this, but I was experiencing such intense fear that, you know, didn't have any relationship to anything. It was just this massive -- and that was what really moved me to....

#11   I don't know what, how I am now with this, but I know that in the past major changes for me have tended to happen with major struggles, stress, or struggle first.

#12   The discomfort had to do with movement for me to change it. and: If I hadn't have had the loss, that I would not have taken, I mean would not have been where I am now, taken the next step of, uh, feeling my own person.

Among those who answered the question, it is unanimous that there is some relationship between the difficulty, crisis, pain, or dissonance and the amount or quality of the change itself. Everyone acknowledged the necessary connection between the two.

The suffering involved is one of those things which looks different in the light of the new organization. Before the transformation it seems like something to be

alleviated; afterwards it seems to be an integral part of the process.

Participants were also asked "what made it possible for you to change"? This question was designed to produce any information missed by the other questions, and to see if there was any common factor.

The first participant sees his ability to change as stemming directly from previous changes:

#1   There were changes in attitudes leading up to
       that. The change from letting go of the community
       to the, to going into the totally new scene, the
       family scene.

Six of the participants pointed to personal qualities of their own:

#5   Stubbornness. I was just -- I wasn't willing to
       back down and give up. Stubbornness is like --
       sort of just to believe in myself that, look, I've
       been living in this body a hell of a lot longer
       than you have, and I know that what's going on, I
       mean, is valid. You know, it's like I feel lousy,
       and it's not in my head.
            Homesickness. I mean, it was this intense,
       internal longing to get back to that place that I
       had been to.

#6   I remained clear thinking during the whole thing.
       But emotionally I was just a total disaster area,
       you know. But in -- my thinking remained clear
       during the whole thing.

#7   And in order to let go I needed to feel that there
       was something that was going to come in for me,
       that I couldn't see yet but I needed to have the
       faith that it was part of this bigger picture and
       if I could only let go that I could embrace the
       new thing. And I felt a lot of strength coming
       for me from that attitude.

#9   My mode of operation is to destroy. You know,
       it's like, if it gets to be too much I will wipe
       out everything and start from scratch. it's that

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drive that has kept me alive and healthy. Always
carrying around that glimpse of peace, and knowing
that there was something more.

#10 Real commitment to myself and to knowing and
honoring what was going on under there.

#11 I'm what -- to put a label on myself which is not
restricting but describes a lot of the way I tend
to do things, the go-for-it person. So that when
things aren't feeling right I tend to do something
about it.

#12 I think that internal strength -- I think that no
matter what would have happened I would have -- if
they would have said we can't love you anymore,
that I would have been able to go on. I think
that I'm, was, I am at a point in my life where I
knew that, so I was able to deal with this, so I
was able to support myself.

One participant saw it as a combination of personal
growth and a natural process:

#8   I was also becoming into a time of competency
away from the home. And that was like it gave me
some strength. That along with seeing how other
people thought, felt, expected things. I think it
was just like a baking, I mean, it was like things
had to bake and that was why -- you know, he was
the buzzer on the oven on it, you know.

Strength, action, committment, clear thinking, faith,

stubbornness--these all indicate a quality of being, of

persistance. These people held on, kept going, took action.

In summary, the perceptions of what is helpful and

unhelpful, what qualities and attitudes make the change

possible, and the significance of the dissonance are very

consistent among the participants. People undergoing this

kind of change need to be treated with compassion and

respect, not condescension or blame. Personal strength is

needed, as is the attitude of openness to the experience.

These are made easier by an ability to maintain a vision of the process, or at least a faith in its ultimate purposefulness and positive outcome. In retrospect, it is clear that the difficulty was a necessary and useful part of the process, without which the transformation could not have occurred.

C H A P T E R   V

CONCLUSIONS AND IMPLICATIONS

Conclusions

This study has set out to compile a theory of morphogenetic change from various theoretical sources, to derive a formulation of the process from the experiences of human beings undergoing morphogenetic change, and to compare the two descriptions of the process with each other. The goal was to determine whether or not the experience matched the theory, rather than to have the theory determine the analysis of the experiential material.

What occurred was, in a sense, a combination of the two. Since the primary vocabulary used in analyzing the experiential material was that of system theory, to that extent, system theory shaped the analysis. Beyond this, however, the experiences were not shaped to fit the theory, but yielded their own data.

The experiences provided a view of the process that differed significantly from the theory, primarily in its diversity of sequence and emphasis, and the fact that not all of the elements of the theory appeared in any one experience.

The experiences also added elements which were not part of the theory, notably the possibility of a painful and

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difficult period of integrating the new organization which is an integral part of the process, and often follows the transformation.

Some the differences between the theory and the experience may be explained by the fact that the theory is mainly derived from General System Theory and from the sciences, and then transferred to application to human beings. Perhaps the elements which may be unique to human systems, including awareness, creativity, will, imagination, etc.; as well as the complexity of human systems, cannot be included in a theory derived from non-human systems. The theory may be accurate insofar as human systems are systems, but inaccurate insofar as they are human, leaving much room for variation and the unexpected.

This brings up the question of whether there is need, or even possibility of devising a more accurate theoretical formulation that might better represent the experience and serve as a model in the future. It may be that a theory would be better formulated from studies of specifically human systems, and how human beings change. It may also be that, because of the diversity and complexity of human experience, it is be impossible to ever capture the process in theory, at least until the culture has evolved a vocabulary to express it. In this sense the theory is a measure of cultural evolution. As our culture evolves, we will develop common languages for experiences which we are

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only just beginning to identify, such as the experience explored in this paper.

In spite of their differences, however, the theoretical formulation and the experience-based formulation matched fairly well in essence. The basic premise that things have to disintegrate before they can reorganize is carried throughout, as is the fact that the new organization emerges from the old one-- from the person him/herself--rather than from any outside agent, although information from outside may contribute to it. The new organization is self-generated, and the process is self-perpetuating. In these elements, the theory provides a useful basis for a theory of human morphogenetic change.

The fact that the experiences differ from each other means several things for this study. First, it serves to point out the diversity of human experience and the futility of normative comparison. This becomes a reminder to the facilitators of the process: above all, have respect for the infinite creativity of the human being.

Second, it also serves as a comforting fact to those undergoing the process: there is no one way to do it. It is unwise to conclude that one is not undergoing morphogenetic change just because one's experience does not match the theory or someone else's experience.

Third, it means that extensive further research needs to be done on the subject.

Another goal of the study was to gather information from the participants relevant to assisting the process. Information was gathered regarding what was or was not helpful to the participants. They were asked for an advice they might have for others, and if there was any factor to which they attributed their ability to successfully negotiate the change.

Much of the information gathered in this section was what one might expect. Participants reported that it was most important to stay in contact with sympathetic others who would provide non-judgmental support. They also reported that personal strength and perseverance were essential. The most universal prescription, and the single most important element in successful change was the willingness not to run from the process, but instead to stay open to it and to one's experience, however unpleasant it may be. Another very important prescription was to have faith in the process, to maintain a kind of overview of it, which enables one to persevere rather than to lose heart. As one participant put it, to remember that "there's a light at the end of the tunnel".

Implications

It would appear from the data that the process of morphogenetic change does indeed play an important part in adult development. Many experiences which tend to be

labeled as simply unfortunate or to be avoided at all cost may actually be pivotal events that have the potential of initiating the process of change toward more integration and complexity, the process of growth, development and evolution.

People universally experienced the end state as more desirable than the beginning state, more inclusive, more realistic, more satisfying, or more "true". Many participants were aware of a sense of inevitability of the process, that they would have ended up in the same place somehow even if these particular events had not taken place. It seems clear that this kind of change, unpleasant as it may be, is more to be desired, that to be avoided. If this were universally recognized, management of these experiences would be radically different.

The usefulness of the information gathered on assisting the process is obvious. Non-judgmental support and information are essential, as is encouragement to experience as fully as possible. This information is also useful for those undergoing the process. This study may begin to serve the purpose of identifying the process as a constructive part of development and growth, thereby providing a useful perspective from which to view it. The process of morphogenetic change may someday become part of common knowledge, occupying a well known and understood place in people's lives, and supported by cultural tradition. This

will in itself facilitate the process, making it infinitely easier for those involved.

If this does in fact come to pass, perhaps one of the obstacles encountered by the participants along the way, that of iatrogenic damages or difficulties incurred by the medical and psychological professions in the process of misguided helping, will be circumvented. Until these professionals are able to understand the constructive nature of the stressful disintegration phase, and of the adjustment phase, there will continue to be helpers who in fact retard or abort the process of morphogenetic change through intervention designed to alleviate dissonance and discomfort, or to eradicate symptoms of the process. This may include anything from medication to advice, when it is applied without an understanding of the process. The difficulty will be in distinguishing between morphogenetic change and pathological phenomena, if in fact any such line can be drawn at all.

This need for understanding of the process by the medical and psychological professions has implications for training, supervision, and even perhaps licensure of these professionals.

Recommendations for Further Research

This study has yielded rich and diverse data on the experience of morphogenetic change. The diversity of these

twelve participants implies that there is a wealth of
further information to be found in other populations, as
well.

The experience of these twelve participants varies
sufficiently from the formulations of the process derived
from theory to warrant further investigation. It is likely
that a much larger, more diverse sample would yield
interesting and perhaps surprising results.

This study was not designed to provide any definitive
information, but rather to shed some light on the process of
change in human systems, and to begin the process of
formulating a useful, experience-based theory. It is very
much a preliminary study. Further studies would need to
expand in the following ways:

1. Collection of data from individuals who are not
white, educated, and in midlife. A wide range of
participants differing in culture, age, social position,
education, religious and philosophical orientation, and
profession should be included.

2. Collection of data from systems comprised of more
than one individual: couples, families, businesses, peer
groups, and other groupings.

3. Collection of data from individuals still engaged
in the process. This study includes only individuals who
are articulate about a change in retrospect. An interesting
study might follow several subjects, who seemed to be in the

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beginning stages of a morphogenetic change, throughout the process.

These subjects might be found through therapists, crisis centers, support groups or other places where people go for help when they begin to sense an approaching difficult change. Since major life changes often result in morphogenetic change, such subject might also be found among the people surrounding a marriage, a divorce, a birth, an illness or a death; or among people involved in career changes.

4. A study could be done regarding sex differences and the ways in which men and women experience change.

5. An alternative theoretical base might be derived from theories of human change from clinicians such as Carl Rogers, Stanislov Grof, Abraham Maslow, and others. This might in turn be compared to the more scientifically derived theory and to the experiences to create an even fuller picture. Another possibility along this same line would be to also investigate sources from autobiographies and/or fictional accounts of morphogenetic change. Perhaps the most complete study would include all three sources, scientific, psychological, and from literature, in comparison with the experiential data.

APPENDIX A

LETTER REQUESTING PARTICIPANTS

a piece of significant information or a pivotal event which
seemed to divide the process at this point, although the
participants did not necessarily speak of it in these terms.
Because it appeared so often, this component has been
included in the discussion.

Table (#1) indicates the components of the process
which emerged from the interviews, and the interviews in
which they occurred. In the case of an interview including
two or more processes, the one leading to what the
participant designated as the significant transformation is
used. This is generally the one preceding the final
transformation point in the story, or the one to which the
participant seems to give the most weight.

39 Paige St.
Amherst, MA 01002
September 17, 1987

Dear

I am a doctoral student at the University of
Massachusetts, looking for people who are willing to
participate in my study as subjects of my research.

I am investigating the way people change. I am
particularly interested in the process of major
reorganization of world view, values or lifestyle which is
sudden and which involves a period of difficulty or crisis
which seems to precipitate it. I am looking for people who
have undergone a major change in their lives. This change
need not be a total personality change. It may be a
reorientation to career, family, religion, or any other area
of life. It may also be the experience of solving a
difficult problem. The main criterion is that the change
itself appeared to be sudden (although there may have been a
series of events leading up to it), and was preceded by
difficulty.

The purpose of this study is to learn more about how
people undergo major transitions in their lives. My
hypothesis is that crisis, rather than being something to be
avoided, is an important part of growth and development. I
hope to provide guidelines for helping people to make the
best use of crisis situations as opportunities for growth.

If you have had an experience like this, and would like
to be part of this study, I would like to interview you for
approximately one hour. I will ask you to recount your
experience, and will also ask you some specific questions
about it. If you would like to do this, please call me at
(413) 253-3367 any evening after 7:00. If you know other
people who might like to do this, please give them this
letter.

Thank you for your help.

Sincerely,

Jean Reid

APPENDIX B

REVISED LETTER REQUESTING PARTICIPANTS

Appendix B

39 Paige St.
Amherst, MA 01002
September 25, 1987

Dear

I am a doctoral student at the University of Massachusetts, looking for people who are willing to participate in my study as subjects of my research.

I am investigating the way people change. I am particularly interested in the process of major reorganization of world view, values or lifestyle. I am looking for people who have undergone a major change in their lives. This change need not be a total personality change. It may be a reorientation to career, family, religion, or any other area of life. It may also be the experience of solving a difficult problem. The main criterion is that this change be a radical reorientation that involved a definite shift of perception, behavior, thinking or feeling.

The purpose of this study is to learn more about how people undergo major transitions in their lives. I believe that there may be a consistent pattern or sequence to this kind of change. Major transitions are often accompanied by difficult or crisis, and my hypothesis is that these difficult situations, rather than being something to be avoided, are an important part of growth and development, and a useful stage in the process of change. I hope to provide guidelines for helping people to make the best use of crisis situations as opportunities for growth. I am also interested in whether or not people can undergo major transitions without difficulty or crisis.

If you have had an experience like this, and would like to be part of this study, I would like to interview you for approximately one hour. I will ask you to recount your experience, and will also ask you some specific questions about it. If you would like to do this, please call me at (413) 253-3367 any evening after 7:00. If you know other people who might like to do this, please give them this letter.

Thank you for your help.

Sincerely,
Jean Reid

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APPENDIX C

PARTICIPANT CONSENT FORM

Appendix C

PARTICIPANT CONSENT FORM

1.   I agree to participate in a study entitled
"Metamorphosis: A Phenomenological Study of the Psychology
of Morphogenetic Change in Human Systems" conducted by Jean
Reid, a doctoral candidate, as part of her research at the
University of Massachusetts, Amherst. I understand that the
objective of this study is to provide information about
change in human systems through an in-depth interview about
my particular experience. I understand that my role in this
research involves one taped interview of approximately one
hour.

2.   I understand that the information generated from my
participation in this study will be used initially to
prepare a written doctoral dissertation. This same
information may also be used at a later date in other
written articles. I understand that I may request more
information at any time regarding the use of this interview
material.

3.   I understand and agree to the following conditions
regarding the collection and safeguarding of information
collected by this study:

     a.   All information will be recorded anonymously. A
code will be used to identify tape and transcriptions of
interviews. No individually identifiable information will
be used. Confidentiality is assured.

     b.   I may request that any or all of the interview not
be   included at any time.

     c.   My participation in this study is voluntary, and I
may   withdraw at any point.

     d.   There will be no monetary compensation for my
     participation.

     e.   There is no anticipated risk in my participation.

4.   I understand that the results of this research will be
made available to me.

5.   If I have any questions in the future about this study,
I may obtain more information by calling Jean Reid at (413)
253-3367.

                    Signature_____
                         Date_____

APPENDIX D

INTERVIEW GUIDE

Appendix D

INTERVIEW GUIDE

name
age
occupation
educational level
age when experience occurred

. Tell me about your experience.

. If you had to describe this experience in stages or
    chapters, what would you say?

. When did you first notice that things were different?

. What made it possible for you to change?

. What do you suppose might have happened if you had not
    changed? (had given up, chosen to go back, etc.)

. Was there a relationship between the difficulty and the
    amount that you changed?

. What was helpful to you while you were having this
    experience?
    (External or internal conditions or interventions)

. What was not helpful to you while you were having this
    experience?

. What advice do you have for people going through something
    like this?

APPENDIX E

DEMOGRAPHIC INFORMATION

Appendix E

Demographic Information

Participant	sex	age at exper.	education	profession
#1	M	35	3 y.college	unemployed
#2	F	25-27	M.A.	psycho-therapist
#3	F	41	B.A.	Homemaker
#4	F	45	M.A.	Homemaker
#5	F	17-31	M.A.	Research technician
#6	F	20-21	M.S.W.	State admin.
#7	F	31-36	B.A.+grad work	Counselor
#8	F	20	M.A.	Social work supervisor
#9	F	34	M.A.	Owner of small ad agency
#10	F	36-37	M.A.	YWCA assistant residence director
#11	M	33	B.A.+grad work	office manager, father
#12	F	33	M.A.	Management devel.

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