CONNECTION AND COMPLETION:
CONFIGURATIONS OF CHANGE

By

DOUGLAS GARFIELD FLEMONS
B.G.S., Simon Fraser University, 1981

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES
(Department of Counselling Psychology)

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

November 1986

© Douglas Garfield Flemons, 1986
In presenting this thesis in partial fulfillment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Counselling Psychology
The University of British Columbia
1956 Main Mall
Vancouver, Canada
V6T 1Y3

November 14, 1986
Abstract

Connection and Completion:
Configurations of Change

Douglas Garfield Flemons

This thesis attempts to construct a conceptual map for thinking about family therapy in a recursive way. The axes used for this map are 1) the Taoist philosophy of change in the Chinese classic *I Ching*, and 2) the cybernetic epistemology of Gregory Bateson. Each is used to help explicate the other.

The relational character of patterned change in the *I Ching* is explored in depth from five different perspectives. The first discusses the elusive and paradoxical subject of the Tao, the meta-pattern which interweaves stability and change, and connects all living systems in a dynamic recursive balance. The Tao is process, the context of all change, and is closely related to Bateson's notion of immanent Mind.

The second perspective examines the nature of the relationship between yin and yang, the complementary opposites that are both distinct (separate) and mutually dependent (connected). The relation between connection and separation is the basis of the recursive balance of life and death, and is an important theme in therapy.
The third perspective presents a model for the understanding of gradual development and sudden transformation as part of a cyclic process of completion. Like a plant going to seed, the maturation of a situation or relationship heralds both death and renewal. But such completion is only possible when there is a flowing connection between parts of the system. The counsellor uses various techniques for helping the family connect in ways which allow old patterns to disperse and new ones to emerge.

There are some indications that the authors of the *I Ching* were directly influenced by the Chinese philosophy of music. The fourth perspective discusses this possibility in some depth and then turns to modern jazz theory as a means of characterizing the relationship between family and therapist, and of explaining the way change is introduced into the therapeutic system.

The fifth perspective explains the nature of the *I Ching's* curious diagrams of change known as "hexagrams." Based on the relation between yin and yang, and illustrated with mantic, philosophical, and poetic phrases, hexagrams, in both structure and image, are metaphoric expressions of process and connection.

The thesis concludes with a case-history of a dysfunctional family and a description of their changes in terms of the principles outlined in the previous chapters.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>List of figures</td>
<td>v</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>vii</td>
</tr>
<tr>
<td><strong>Chapter</strong></td>
<td></td>
</tr>
<tr>
<td>1. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2. The Tao of Change</td>
<td>20</td>
</tr>
<tr>
<td>3. The Complementarity of Change</td>
<td>37</td>
</tr>
<tr>
<td>4. Cycles of Completion: The Phases of Change</td>
<td>74</td>
</tr>
<tr>
<td>5. The Music of Change</td>
<td>96</td>
</tr>
<tr>
<td>6. Patterns of Change</td>
<td>131</td>
</tr>
<tr>
<td><strong>Appendixes</strong></td>
<td></td>
</tr>
<tr>
<td>1. Sample Hexagram</td>
<td>156</td>
</tr>
<tr>
<td>2. Comparison of Equal Tempered and Natural Fifth Scales</td>
<td>161</td>
</tr>
<tr>
<td>References</td>
<td>162</td>
</tr>
</tbody>
</table>
## Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Sixty-four Hexagrams of the <em>I Ching</em></td>
<td>7</td>
</tr>
<tr>
<td>2. The T'ai Chi Symbol</td>
<td>9</td>
</tr>
<tr>
<td>3. The Eight Trigrams</td>
<td>9</td>
</tr>
<tr>
<td>4. Trigram Images and Relationships</td>
<td>11</td>
</tr>
<tr>
<td>5. The Three Levels of Existence</td>
<td>12</td>
</tr>
<tr>
<td>6. &quot;The Birth of God&quot;</td>
<td>45</td>
</tr>
<tr>
<td>7. The Dynamic Unity of Polar Opposites</td>
<td>46</td>
</tr>
<tr>
<td>8. The Knot of Complementarity</td>
<td>48</td>
</tr>
<tr>
<td>9. The Rigidity of Denial</td>
<td>54</td>
</tr>
<tr>
<td>10. The Interpenetration of Three and Two in the Structure of Hexagrams</td>
<td>100</td>
</tr>
<tr>
<td>11. The Twelve Lù</td>
<td>103</td>
</tr>
<tr>
<td>12. The Pattern of Connection between the Lù and the Chromatic Scale</td>
<td>104</td>
</tr>
<tr>
<td>13. The Association of Lù and Months</td>
<td>106</td>
</tr>
<tr>
<td>14. Yang and Yin Lù</td>
<td>108</td>
</tr>
<tr>
<td>15. The Movement of Trigrams</td>
<td>109</td>
</tr>
<tr>
<td>16. The Pa-Kua (Eight Trigrams) and Pa-Yin (Eight Sounds)</td>
<td>113</td>
</tr>
<tr>
<td>17. Chart of &quot;My Funny Valentine&quot;</td>
<td>117</td>
</tr>
<tr>
<td>18. Structural Levels in &quot;My Funny Valentine&quot;</td>
<td>120</td>
</tr>
</tbody>
</table>
19. "My Funny Valentine" in Waltz Time ........................................... 121
20. A Vicious Circle ........................................................................... 126
21. A Musical Proposition of Change .................................................. 127
22. Corresponding Lines of Hexagram 49 .......................................... 140
23. The Inverse Relationship Between Hexagrams 49 and 50 .............. 141
24. Latent Patterns in Hexagram 49 .................................................. 141
25. The Complement of Hexagram 49 ............................................... 142
Acknowledgements

Larry Cochran made this thesis possible. He encouraged me from the beginning, and skillfully guided me in the writing of it. Suggesting relevant books, pointing out problems, making connections, he was mentor, advisor, and editor. That he agreed to chair my committee despite his being on sabbatical speaks to his commitment and dedication. I am indebted and honoured.

Many of the ideas developed here were first given form in a lecture that Marv Westwood asked me to do. I must thank him for that incentive, and for his continued interest and support in this project. Our discussions and informal conversations are always stimulating.

The real beginning of this thesis dates from the fall of 1976, when I met Titus Yu and began studying the /Ching with him. In subsequent years, in the process of translating this fascinating book together, he taught me how to think differently, and in so doing changed my life. It has been a distinct pleasure—and an important "completion"—to have had him as my external examiner on the committee.

Friends and family have all helped me through, but one person in particular, my friend and colleague Moyra Jones, was a great critic and constant source of inspiration.
Chapter 1
Introduction

The cybernetic epistemology of family therapy corresponds in many ways to the Taoist world-view found in the ancient Chinese classic *I Ching* (*Change Book*). Fundamental to both are the notions of pattern, interactive relationship, and recursive change. This thesis explores the philosophy of the *I Ching* in detail, distills from it a number of principles of change which are relevant to the context of therapy, and makes connections between these ideas and the work of Gregory Bateson, and family theorists such as Keeney, Haley, Minuchin, Whitaker, Madanes, and the Milan Associates.

---

1 The Chinese character *I* is a picture of the head and body of a chameleon. As a living organism it symbolizes change in a number of ways. It is able to change its color in relation to its surroundings, its body temperature changes in response to the ambient temperature, and perhaps most importantly, it follows a life cycle, from birth to death, during which time it grows, sheds skin, breathes, eats, and so on.

Strictly speaking, "Taoism" as an organized school of thought did not appear until sometime between the fifth and third centuries B.C. Thus it could be argued that the *I Ching*, which was written prior to this time, should not be considered a part of this tradition. It would perhaps be more accurate to describe it as the *wellspring* of Taoism (and Confucianism too for that matter), but since its orientation is in accord with the writings of Lao Tzu and Chuang Tzu (the two most famous Taoist writers), I shall continue to refer to it as a "Taoist" text.
Using the example of binocular vision as a metaphor, Bateson (1979a) talks about the new insights, the extra depth of understanding which results when information from two different perspectives is juxtaposed. The bringing together of ideas from systemic theory and Taoist philosophy has enabled me to derive an orientation to therapy which benefits from both the similarities and the differences between the respective sources. The resulting synergistic model explicates the connecting, cyclic nature of therapeutic change and the role of the counsellor in the process.

Following Auerswald (1973), Keeney (1983) categorizes family therapists into three classes according to their epistemological points of view: "(1) those who follow a traditional lineal epistemology, (2) those who follow a nonlineal [i.e. cybernetic] epistemology, and (3) those who are in transition from the former to the latter" (p. 15). Those in the first category work within a paradigm which

is exemplified by psychiatric nomenclature and the classical medical model of psychopathology. It is atomistic, reductionistic, and anticontextual and follows an analytical logic concerned with combinations of discrete elements. Therapists who view their work as an attempt to correct, dissect, or exorcise bad, sick, or mad elements of their clients operate within a lineal epistemology. (p. 14)

The limits of this perspective have been highlighted by a number of authors (see for example, Bateson, 1972, 1978, 1980a; Berman, 1984; Laing, 1970, Maslow, 1966; Selvini Palazzoli, Boscolo, Cecchin, & Prata, 1975/1978; Szasz, 1978, Watts, 1961; Wilden, 1972), most of whom criticize its narrow focus as being destructive of relationship and potentially pathological.

Nonlineal epistemology, on the other hand
emphasizes ecology, relationship, and whole systems. In contrast to lineal epistemology, it is attuned to interrelation, complexity, and context. This alternative epistemology is manifested by therapists who view their relationship with clients as part of the process of change, learning, and evolution. (p. 14)

But noting that "it is unlikely that anyone has fully realized a nonlineal epistemology" (p. 16), and that "what one sees will always be shaped by the world in which one is presently operating" (p. 15), Keeney points out that we are all caught in the murky stage of transition, attempting to bootstrap ourselves into thinking and acting in a recursive way, but unable to quite make the necessary leap. How can we proceed without being able to see where we are going?

Perhaps ancient Chinese philosophers can help. Judging from the I Ching, Tao Te Ching, and Chuang Tzu, it does appear as though the authors of these books, conducting their lives in accord with the recursive balance of the Tao, were able to live and think in a distinctly non-lineal way. Can their exemplary writings provide something of a guiding light, and thereby lead us to a new, cybernetic, understanding? Unfortunately, the road is not so simple or direct. Reading their work in translation, from within our own world-view, it is quite inconceivable that we could see or understand their perspective as they did. We are confronted with the paradox that viewing "an alternative world requires being in that world" (Keeney, 1983, p. 15).² It is thus clearly impossible to fully or accurately explain the philosophy of the I Ching in Chinese terms and use it to illumine a straightforward route to a new level of

² Of course paradox never bothered the Taoists. Rather than attempting to avoid it, they embraced it, weaving it into their thought and practice, and utilizing it for the teaching of insight.
insight. A lineal methodology such as this would be doomed to failure from the outset. With such a direct path blocked, I have chosen to proceed recursively.

Taking seriously Bateson's notion that the benefits which ensue from double description derive from the juxtaposition of perspectives, this thesis continually moves back and forth between a Taoist, and, for the lack of a better word, a Batesonian view. It is the cyclic movement between which engenders information; thus it would be as accurate to note that the thesis uses Bateson to explicate the philosophy of the I Ching as it would be to say that Taoism is used to inform the theory of family therapy. Both must necessarily be true if we are to begin to weave a different worldview.

Accurate translations are of course critical to a cross-cultural enterprise such as this. Quotations from the I Ching are drawn from Dr. Titus Yu's and my (1983) translation of the book, those from Lao Tzu's Tao Te Ching are from John Wu's (1961) rendition, and the passages from Chuang Tzu are from Burton Watson's (1964) version. The I Ching, certainly the oldest of these works, is a rather strange compilation of mantic, philosophical, and poetic phrases drawn from divers sources and appended to symbolic diagrams. To the casual Western observer, it can appear as a hodge-podge of mixed
metaphors and curious pronouncements—an impression which will not be attenuated by the culture-specific symbolism and historical references, nor by the textual difficulties created when translating such an idiosyncratic work. For these and the reasons cited above, portions of the book and its world-view will doubtless always remain obscure and out of reach.

This must be considered an important—and inevitable—limitation of this study. A translation, never a transparent window, at best functions as a prism, defracting the language and ideas in some kind of consistent way—and this, only if it interprets the text within what is known of the cultural and historical context of its inception and manages to retain something of its linguistic integrity. Nevertheless, if these conditions are met, I believe a translation can re-present a significant measure of the wisdom of the original work. Before discussing the way in which we translated the I Ching, it is necessary to first provide some important background information on the nature of the book itself.

The written texts of the I Ching are organized around sixty-four core diagrams, each composed of a different combination of six broken (— — yin) and/or unbroken (— — yang) lines (see Fig. 1).

---

3 The eclecticism can also be seen as a strength: "The essential thing is to keep in mind all the strata that go to make up the book. Archaic wisdom from the dawn of time, detached and systematic reflections of the Confucian school in the Chou era, pithy sayings from the heart of the people, subtle thoughts of the leading minds: all these disparate elements have harmonized to create the structure of the book as we know it. Its real value lies in its comprehensiveness and many-sidedness. This is the aspect under which the book lives and is revered in China" (H. Wilhelm, 1960, p. 38).

4 It should be obvious that translation is nothing but interpretation.
These "hexagrams" symbolize unique patterns of change whose course is charted by the particular sequential arrangement (from bottom to top) of the two kinds of lines. By studying a hexagram it is generally possible to follow a pattern from its inception (the bottom line) through a period of growth (lines two to four), and on to its maturation (usually the fifth line) and eventual decline (the top line).5

The upward direction of the change is significant, as it imitates the growth of a plant. The *I Ching* was born in an agricultural environment (Shchutskii, 1979, p. 195), so it isn't surprising that it embodies what could be described as a biological epistemology. Change is not conceived within a causal framework, but in terms of development. And integral to this view is the notion of pattern:

> Things influence one another not by acts of mechanical causation, but by a kind of 'inductance'. . . . The key-word in Chinese thought is *Order* and above all *Pattern* (and if I may whisper it for the first time, *Organism*). The symbolic correlations or correspondences all formed part of one colossal pattern. Things behaved in particular ways not necessarily because of prior actions or impulsions of other things, but because their position in the ever-moving cyclical universe was such that they were endowed with intrinsic natures which made that behaviour inevitable for them. . . . They reacted upon one another not so much by mechanical impulsion or causation as by a kind of mysterious resonance. (Needham, 1969, pp. 280-281)

---

5 Appendix 1 presents a representative hexagram with detailed notes explaining its structure, language, and layout.
Figure 1

The Sixty-Four Hexagrams of the I Ching

An organic view of the world will of course see organization (i.e., the relations between things) as fundamental. The development of a hexagram, like the development of a plant, can best be understood not in terms of discrete component parts (i.e., from an atomistic perspective), but as an evolving network of relationships. Bateson (1978) explains that

when you use language rightly to describe a flowering plant you will say that a leaf is a lateral organ on a stem which is characterized by having a bud, namely a baby stem, in its axil. So the definitions [become]: a stem is that which bears leaves, and a leaf is that which has a stem in its angle; that which is in the angle of a leaf is a baby stem; and so on. Each component of the anatomy is defined by its relation to the others [my emphasis]. (p. 45)
This same understanding can be applied to hexagrams. No line, no stage in the unfolding pattern can be understood except in relation to other lines, and the constellation as a whole. And an individual hexagram must be studied within the context of other hexagrams, and so on. The foundation of this systemic orientation towards change is the interdependent, interpenetrating relationship between yin and yang.

The archaic form of yin is a picture of clouds, whereas the ancient form of yang depicts the sun shining from above the horizon. In Taoist thought, yin and yang are conceived as interactive polarities which propose and define each other. Each have qualities or attributes associated with them, but they only make sense if they are understood in relation to their complement. Thus yin is dark to the extent that yang is light, yin is inward as yang is outward, yin is empty to yang's fullness, yin is passive while yang is active, and so on. The T'ai Chi symbol elegant portrays the nature of this relationship—yin and yang together define a continually moving balance in which each is in the process of transforming into the other (see Fig. 2).

Modern characters can differ significantly from their archaic roots. The etymologies can usually be traced, but there are sometimes different interpretations of what the pictures represent. Unless otherwise indicated, my explanations of the characters draw on the scholarship of my teacher Dr. Titus Yu, who based his analyses on many etymological dictionaries, most notably Shuo Wen. Of course, I take responsibility for extrapolations and any omissions or errors.
The Emporer Fu Hsi (2852? - 2738? B.C.) is traditionally given credit for having taken the first step towards creating patterns of yin and yang by arranging them in three-level diagrams called kua or "trigrams." Two aspects (yin and yang) and three levels produces a total of eight different configurations: $2 \times 2 \times 2 = 8$ (see Fig. 3).

Each of the trigrams is associated with an important part of nature—heaven, earth, thunder, wind, running water, fire, still water, and the mountain—and have many secondary images and qualities attached to them. For example, Li
is fire, the sun, lightning, the middle daughter. It means coats of mail and helmets; it means lances and weapons. Among men it means the big-bellied.

It is the sign of dryness. It means the tortoise, the crab, the snail, the mussel, the hawkbill tortoise. Among trees it means those which dry out in the upper part of the trunk.

( _I Ching, Shuo Kua,_ R. Wilhelm, 1967, p. 278)

There are similar descriptions of the other seven figures in the "Shuo Kua" (Discussion of the Trigrams) section of the book. The relationships between the trigrams are expressed in a number of different ways. In Figure 4 I have included two—their corresponding positions on the compass and their familial designations. And yet, just as yin and yang are constantly changing, so too trigrams are symbols of movement and transition. It is most accurate to think of them not as things or states, but as constellations of change.

The three lines are also symbolic of three levels of existence: earth, human, and heaven (see Fig. 5). Each is distinct, yet interconnected. The processes of change are thought to be analogous in every realm.

---

7 This text is one of the "Ten Wings" or appended commentaries. We did not include it in our translation, but it can be found in R. Wilhelm (1967) pp. 262-279.
<table>
<thead>
<tr>
<th>Trigram</th>
<th>Name</th>
<th>Image</th>
<th>Direction</th>
<th>Family Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ch'ien</td>
<td>Heaven</td>
<td>South</td>
<td>Father</td>
</tr>
<tr>
<td></td>
<td>K'un</td>
<td>Earth</td>
<td>North</td>
<td>Mother</td>
</tr>
<tr>
<td></td>
<td>Chen</td>
<td>Thunder</td>
<td>Northeast</td>
<td>Eldest Son</td>
</tr>
<tr>
<td></td>
<td>Sun</td>
<td>Wind</td>
<td>Southwest</td>
<td>Eldest Daughter</td>
</tr>
<tr>
<td></td>
<td>K'an</td>
<td>Running</td>
<td>West</td>
<td>Middle Son</td>
</tr>
<tr>
<td></td>
<td>Li</td>
<td>Fire</td>
<td>East</td>
<td>Middle Daughter</td>
</tr>
<tr>
<td></td>
<td>Ken</td>
<td>Mountain</td>
<td>Northwest</td>
<td>Youngest Son</td>
</tr>
<tr>
<td></td>
<td>T'ui</td>
<td>Lake</td>
<td>Southeast</td>
<td>Youngest Daughter</td>
</tr>
</tbody>
</table>

Figure 4

Trigram Images and Relationships

The sixty-four six-line figures—hexagrams—were created by pairing trigrams together, one on top of the other: 8 trigrams x 8

---

8 According to Hellmut Wilhelm (1960), "there are many indications that the hexagrams were the original images from which the trigrams were then later abstracted. In favor of this hypothesis is the fact that the numbers two and six on which the hexagrams are based have a long history of special emphasis while three and eight seem to have gained attention much later" (p. 37). For reasons I will outline in the chapter on music, I believe there is support for the view that trigrams preceded hexagrams.
Heaven

Human

Earth

Figure 5
The Three Levels of Existence

trigrams = 64 hexagrams\(^9\) (see Fig. 1). Each hexagram has a title (for example, "The Well," or "Enflaming Inspiration," or "Thunder Cracks") which functions as a chapter heading, indicating the tenor and orientation of the pattern it represents. King Wen, the progenitor of the Chou dynasty (traditionally dated 1150 - 249 B.C.), is said to have added images and pronouncements to each of the configurations as a whole (designated in our translation as the PRIMARY TEXT), and his son, the Duke of Chou, is supposedly responsible for writing the texts which attach to the individual lines (LINE IMAGES).\(^{10}\) Confucius (551-479 B.C.) and his students are traditionally credited with writing the "Ten Wings," a number of appended commentaries which serve to clarify the meaning of the images and apply the patterns to an understanding of social affairs.\(^{11}\)

\(^9\) In Chinese, both "trigram" and "hexagram" are the same word: \textit{kua} \(\text{癸}\).

\(^{10}\) See Appendix 1 for a sample hexagram, complete with the texts and commentaries.

\(^{11}\) Some of these Wings are included in our translation under the headings COMMENTARY, PRIMARY IMAGE, and the COMMENT portion following each of the LINE IMAGES; also included are the EXPLICATIONS of Hexagrams 1 and 2.
Scholars do not agree on the dating of the text, the authorship, or even its historical significance. Fung Yu-lan (1931/1952, pp. 379-382) questions the reputed antiquity of the book; he believes that the trigrams and hexagrams were not created until early Chou times (circa 1100 B.C.), and he rules out any possibility that Confucius wrote the Ten Wings, suggesting instead that they were written sometime during the Han dynasty (206 B.C.-A.D. 220). Helmut Wilhelm (1960) on the other hand, says that although ascribing the creation of the trigrams to Fu Hsi does indeed seem legendary, "it is certain at least that the fundamental idea of complexes of whole and divided lines goes back to remote antiquity" (p. 10). He also notes that it is possible that two earlier versions of the I Ching existed in the Hsia dynasty (traditionally dated 2205 - 1766 B.C.) and the Shang dynasty (traditionally dated 1766 - 1150 B.C.). These books were also based on hexagrams, but differed in their arrangement and names of the individual hexagrams (p. 10). As for the Ten Wings, Wilhelm (p. 12) suggests that they were written by disciples of Confucius who gathered their teacher's oral discussions together and set them down as commentaries or introductory chapters.

Blofeld (1965) is rather vague about specifics when he states that "the actual Text of the I Ching . . . surely dates from a period long antecedent to the emergence of Taoism and Confucianism as separate entities [i.e., long before circa 500 B.C.]") (p. 38). Blofeld's caution is probably the wisest course given the scanty historical evidence available for the construction of a reliable argument.

Fung (1931/1952) believes that the I Ching was first of all a book of divination, and only later acquired wider significance as a work of
philosophy (pp. 379-381). This is in accord with Shchutskii's (1960/1979) conclusions:

The basic text of the Book of Changes is originally a divinatory and subsequently a philosophical text which took shape from the materials of agricultural folklore in the Chin or Ch'in territories between the eighth and seventh centuries B.C. (p. 195)

Hellmut Wilhelm (1960) is also certain "that it was regarded as an oracle book and used as such at a very early date" (p. 8).

Watts (1975) dates the book differently from others and considers it to have been of little or no consequence in the development of Taoist thought:

My guess is that in the [5th and 4th centuries B.C.] it was circulating as an orally transmitted folk wisdom, of indeterminable antiquity, comparable to the art of reading tea-leaves or the lines on the palm of the hand. There might have been written versions of it, but they would have been of the status of the Farmer's Almanac or popular guides to the meaning of dreams. (p. 27)

H. Wilhelm (1960) has a much different view of the I Ching's significance. He concludes that the book's many textual layers are products of different times, stretching over a millennium and involving the best minds in China:

We see, then, that about a thousand years have gone into the making of this remarkable book. Its beginnings go back to times when a rational separation of objective from subjective nature did not yet exist. Those who have collaborated in making it are the personalities who have formed China and its culture. (p. 12)

Following Helmut Wilhelm and Titus Yu, I assume that the book evolved over a long period of time, and that the earliest strata date from the beginnings of Chinese civilization. Wang Pi (226-249

12 I will discuss the significance of divination to the notion of change in Chapter 4.
A.D.), author of the oldest extant commentary on the *Tao Te Ching*, found many correspondences between this work and the *I Ching*, and I consider it fruitful and justified to consider the two books as derivative of a common vision—an orientation towards the world that is based on an understanding of the Tao.

Dr. Yü and I collaborated for five years in our translation of the *I Ching*. In so doing, we sought to present the book in a manner which reflected, as much as possible, its Chinese origins. To this end we researched the etymologies of many words, analyzing their pictoral components through bone and bronze inscriptions, and incorporating the images in our renderings. For example, the title of Hexagram 18, *Ku* (龜), means decay, something rotten. The character is a picture of insects together with a container. We used the English expression "Can of Worms" to capture the image. *Kuan* (観), the name of Hexagram 20, is composed of a bird, branches, eyes, and an eye with rays (which means "to see"). The word means to contemplate, to have an overview of a situation. Of course a bird peering from the treetops will have a "Bird's Eye View." The title of Hexagram 38, *K'uei* (睽), refers to dissension, or conflict. The character depicts eyes looking in opposite directions. This character was translated as "Not Eye to Eye." Wilhelm's (1967) versions are, respectively, "Work on What Has Been Spoiled (Decay)," "Contemplation (View)," and "Opposition."

Classical Chinese has no formal punctuation connecting and separating phrases, and thus there is often a multiplicity of ways in which one can read the same passage. To accommodate this, we
designed a poetic style of presentation which retains the syntax of the original: the open relationship between phrases is maintained by separating them horizontally (by means of blank space) and vertically. For instance, consider the following LINE IMAGE from Hexagram 40, Hsieh Hsi ("Cutting Through"):

6/3
  carries a load rides in a carriage  
  incurs swooping outlaws  
  will be adverse

Wilhelm (1967, p. 156) translates the same passage this way:

Six in the third place means:
If a man carries a burden on his back
And nonetheless rides in a carriage,
He thereby encourages robbers to draw near.
Perseverance leads to humiliation.

Notice Wilhelm's use of the male pronoun and subject. They are not present in the Chinese text. Generally in the I Ching, unless specific reference is made to a particular person (i.e., the sage, exemplar, and so on), the subject is assumed. This has the effect of emphasizing the verb in the sentence, which makes sense given that the book is the Book of Change. Wilhelm's insertion of pronouns shifts the emphasis of the phrase from the action to a non-existent, male subject, thereby distorting the orientation of the original. In our translation, we attempted to emulate the laconic and pictographic form of the Chinese, while taking care to protect the integrity of the English.

The notions of change in the I Ching are not presented as a reasoned argument, are not listed or organized, cannot be "located"

---

in any one place where they can be isolated and categorized, and thus are "no-where" to be found. Like the Tao, essentially empty and insubstantial, they reside in relationship.

Thirty spokes converge upon a single hub; It is on the hole in the center that the use of the cart hinges.

We make a vessel from a lump of clay; It is the empty space within the vessel that makes it useful.

We make doors and windows for a room; But it is these empty spaces that make the room liveable.

Thus, while the tangible has advantages, It is the intangible that makes it useful. (Tao Te Ching, Wu version, 1961, p. 15)

The intangible may be useful, but it is very difficult to discuss without losing or mangling in the telling. This is why I have relied on the relational, recursive method of exploration described earlier. By continually oscillating between cybernetic epistemology and Taoist philosophy, I am able to maintain a continual balance between West and East, and, as in the images of a hexagram, to find the meaning of change in the relation between them.

The next chapter introduces the elusive and paradoxical subject of the Tao, the meta-pattern which interweaves being and non-being, stability and change, and connects all living systems in a dynamic recursive balance. The Tao is process, the context of all change, and is closely related to Bateson's notion of immanent Mind.

Chapter 3 examines the nature of the relationship between the complementaries yin and yang. Whereas dichotomous opposites are generally thought of as being mutually exclusive (eg., good versus evil), complementary opposites such as yin and yang are
understood as being both distinct (separate) and mutually dependent (connected). The relation between connection and separation is the basis of the recursive balance of life and death, and it is a recurrent theme in therapy.

The fourth chapter develops a model for the understanding of gradual development and sudden transformation, not as disparate phenomena, but as part of a cyclic process of completion. Recursive change in the *I Ching* is divided into four phases, like the seasons of the year: "originating" (beginning), "flows freely" (development), "bears fruit" (maturation), and "diversifies" (death). As is implied in the phrase "going to seed," death and new life are inextricably linked. Applied to the context of therapy, this four-phase model can serve as a useful tool for characterizing the nature of health and dysfunction, and for clarifying the role of chaos or dissolution in the creation of therapeutic change.

Modern philosophers such as Bergson, Langer, and Bateson have recognized what the Chinese knew long ago: that music in its formal and rhythmic completeness is an analogue of the "pure" change of living systems. Chapter 5 discusses ancient Chinese music and explores the possibility that the authors of the *I Ching* were directly influenced by the philosophy of music. It then draws on jazz theory as a way of: (1) examining Bateson's notion of context, (2) characterizing the relationship between counsellor and family, and (3) explaining how change is proposed in the family-counsellor ensemble.

The final chapter describes hexagrams as "stories of change." One such pattern is interpreted in depth by analyzing the textual
and structural relationships both within the hexagram and between it and other configurations. The chapter concludes with a story about therapeutic change which incorporates in its description many of the ideas developed throughout the thesis.
Chapter 2
The Tao of Change

Lao Tzu's *Tao Te Ching* 道德經 (Book of Tao and Te)\(^1\) begins with the following six words:

道可道非常道

Rump and Chan's (1979) translation is representative of most: "The Tao that can be told is not the eternal Tao" (p. 1). Essentially, the phrase can be understood to mean that the Tao defies description, that it cannot be captured in language. Nevertheless, Lao Tzu proceeded to write five thousand words on the subject. This prompted the ninth century Tang poet, P'o Chü-i, to comment humorously:

Those who speak do not know;
Those who know do not speak.
This is what we were told by Lao Tzu.
Should we believe that he himself
was the one who knew;
How could it then be that he wrote
no less that five thousand words.
(P'o Chü-i)
(Chang, 1963, p. 30)

The word Tao 道 is a picture of a foot (denoting movement, or more specifically, according to Wieger, 1965, p. 789, "going and

\(^1\) "Tao" is commonly left untranslated, for reasons that will become clear in the following discussion. In our translation of the *I Ching*, Dr. Yü and I translated *Te* 德, as "heart-directed actions."
pausing") and a head (symbolizing a person). Wieger (p. 326) says that it means "to go ahead," while Watts (1975, p. 40), with a little more panache, suggests that it can be thought of as "intelligent rhythm." Common to both is the essence of Tao as process.

But in saying this, I have already lost this essence. The difficulty, in part, lies in the way language structures our way of knowing, our epistemology: "The relation between language and experience is often misunderstood . . . [it] actually defines experience for us by reason of its formal completeness and because of our unconscious projection of its implicit expectations into the field of experience" (Sapir, 1931, p. 578). Far from being transparent to the world, a window through which we objectively peer, language participates in shaping and molding the "who" we think we are, and what we think of things "out there." According to Shands (1971),

language prescribes for us a linear ordering of data in discursive sequence. Overwhelmingly and unconsciously influenced by linguistic method, we then decide and enforce acceptance of the notion that the universe is organized on a linear basis, in cause and effect patterns of general relevance. Since language demands subject and predicate, actor and acted upon, in many different combinations and permutations, we conclude that this is the structure of the world. (p. 32)

In reifying process, language demarcates the world into "things" and creates dichotomous splits between body and mind, self and environment, therapist and client, and so on. If I say, for example, that "the Tao is process," or "the Tao is unity," I define it as an encapsulated thing which is then distinct, separate from other things. But this is precisely what the Tao is not.
Lao Tzu manages to eschew this problem, at least in part, by weaving paradox into his work. Let's take another look at the first line of the *Tao Te Ching*:

道可道非常道

What Rump and Chan's rendition doesn't reveal is that the word Tao is repeated three times. Literally translated, it reads: Tao 能 able to 可 Tao 道 not 非 continuum 非 Tao 道. In order to retain something of the second "Tao" I have embedded it in a pun: "Tao endowed is not the Continuum Tao." The Tao which is endowed with attributes is not the Tao which is pure process, pure continuum. And yet the word "continuum," which describes the nature of the "real" Tao, functions in the sentence as an adjective, and is therefore itself an attribute. Thus the sentence affirms and denies itself in continual oscillation. And it is this, the oscillation, which says what the words, at the level of content, cannot say themselves. The recursion created by the internal paradox of the sentence is analogous to the recursive process of the Tao.

Analytic thinking mirrors the chunk-like structure of language—confronted with complexity, it breaks things down into simpler, more manageable component parts. Knowledge is increased by amassing information. Berman (1984) describes this perspective or state of mind "nonparticipating consciousness," where

the knower, or subject "in here," sees himself as radically disparate from the objects he confronts, which he sees as being

---

2 I am indebted to Titus Yu for my understanding of the meaning of these words. However it is I who must take responsibility for the extrapolation which follows.

3 To appreciate the pun it is necessary to realize that "Tao" is pronounced "Dow."
"out there." In this view, the phenomena of the world remain the same whether or not we are present to observe them, and knowledge is acquired by recognizing a distance between ourselves and nature. (p. 355)

Applied to a study of the Tao, this approach will come up empty handed, and the analytic thinker will judge his or her effort a failure. But Lao Tzu would say that an empty hand is the first step towards truly understanding the Tao:

One who fusses over anything spoils it.
One who grasps anything loses it.
The Sage fusses over nothing and therefore spoils nothing.
grips at nothing and therefore loses nothing.

(Lao Tzu, Ch. 64, Wu version, p. 93)

Since the Tao is empty (Ch. 4) there is nothing to grasp. The sage, recognizing the limitations of accumulated knowledge, practices the wisdom of letting go:

Learning consists in daily accumulating;
The practice of Tao consists in daily diminishing.

Keep on diminishing and dimishing,
Until you reach the state of No-Ado.
No-Ado, and yet nothing is left undone.

(Lao Tzu, Ch. 48, Wu version, p. 69)

"No Ado" is John Wu's—I think quite good—rendering of the most pivotal concept in Taoism: \textit{wu wei}. Most other translators use the term "non-action" as the English equivalent, but this can be misinterpreted to mean "not doing anything at all."

Richard Wilhelm (1956/1979) explains that \textit{wu wei} "is not quietism in our sense, but is the readiness to act the part in the phenomenal

\footnote{I have altered Wu's translation slightly, removing the male pronouns which are not present in the original Chinese.}
world assigned to man by time and his surroundings" (p. 7). In other words, it means to act in accord with the context.

*Wu* 無 is a negation which originally meant "to vanish" (Titus Yü, personal communication, January, 1981). It conveys the sense of emptiness, immanence, and boundlessness, and is thus closely associated with the Tao itself. *Wei* 行 means "activity," but it has a double meaning, captured in part by the word "act." "To act" can simply mean "to do," or it can imply a certain artificiality or forced quality. Thus the phrase *wei wu wei* 無行為 (found, for example at the beginning of Ch. 63) means to "act without acting," or to "act empty of artificiality," or to "act without straining." This is the means of following the Tao.

Hoff (1982, p. 68) remarks that

practically speaking, [Wu Wei] means without meddlesome, combative, or egotistical effort. It seems rather significant that the character *Wei* developed from the symbols for a clawing hand and a monkey, since the term *Wu Wei* means not going against the nature of things; no clever tampering; no Monkeying Around.

Lao Tzu's 37th chapter relates *wu wei* directly to the Tao:

道常無為而無不為

Tao never makes any ado,  
And yet it does everything.  
(Wu version, 1961, p. 53)

Missing in the English are the two negations in the second sentence—wu 無 and pu 不. The translator presumably decided that they cancelled each other out, and chose to render the phrase positively. But saying something with a double negative is much
different that just stating it affirmatively. Like yin and yang, a double negation contains its own opposite.

Hypnotists have long known that to make sense of a simple negation one has to first represent whatever is negated. Because "negation exists only in language and not in experience" (Grinder & Bandler, 1981, p. 67), a person can't experience the suggestions "don't get too comfortable" or "I wouldn't ask you to relax," without imagining the feelings of comfort and relaxation. The hypnotist makes use of this phenomenon to help facilitate trance induction. If a simple negation sends us to its opposite in order to make sense of it, then a double negative sends us in a circle, to both poles of what is being said and not said. Lao Tzu's use of negation fulfills a similar function as the paradox in the first chapter: it generates recursion through oscillation. To retain this quality of the original Chinese, I suggest the following modification to Wu's version:

Tao never makes any ado,
But is never not doing.

The interpenetration of yin and yang are imbedded in the language, and the resulting recursion is formally related to the circular nature of the Tao:

反者道之動

The movement of the Tao consists in Returning. (Lao Tzu, Ch. 40, Wu Version, p. 59)

The word *fan*, translated here as "returning," was originally written as: 反. According to Wieger (1927/1965, p. 120), it depicts the motion of a hand turning over. He says it means "to turn over, inversion." A synonym of this word is used in

**Turning Back**
- flows freely outward and inward
- unafflicted
- friends come  no dissonance
- turns and returns  back to the Tao

The last line can be read in (at least) two ways: that one is returning to the Tao (presumably having strayed from its course); and also that the motion of the Tao itself is one of turning and returning. In other words, one attunes to the Tao by following the nature of its movement, by acting recursively. This is made more explicit in the COMMENT portion of the hexagram's fourth LINE IMAGE:

```
walks in the center
turns back alone—
follows the Tao
```

(p. 100)

Walking in the center denotes balance-in-action, another important way of harmonizing with "the central Tao" 道. ^6^ And the balance of the Tao is maintained through circuitous process. This can be clearly seen in the COMMENTARY^7^ of Hexagram 15, *Ch’ien*, "The Emptied" 謙 (p. 72):

**The Emptied**
- flows freely—
  *the tao of heaven flows downward*
  *shines brightly*
  *the tao of earth lies low*
  *moves upward*

---

^5^ In fact, Wilhelm translates *Fu* as "Return."

^6^ This phrase is used in Hexagram 18, *Ku* 既 , in the COMMENT on the second LINE TEXT.

^7^ One of the "Ten Wings."
the tao of heaven spills off the filled up
gives to the emptied
the tao of earth rechannels the filled
streams to the emptied

the tao of people loathes the filled
loves the emptied

When heaven, earth, and people follow their own true and unique
natures, their actions, though different from each other, continually
renew the recursive balance of the Tao, filling the empty and
emptying the full. The same theme is echoed in Chapter 22 of the
Tao Te Ching:

Bowed down then preserved;
Bent then straight;
Hollow then full;
Worn then new;
A little then benefited;
A lot then perplexed.
(Lau version, 1963, p. 79)

Wang Pi (226—249 A.D.), commenting on the last two lines of this
passage, says that

the Tao of tzu-jan [i.e., being true to one's nature] is like a
tree. The more it grows [becoming "a lot"], the more distant it
is from the roots; the less it grows (to have little), the less
distant it is from the roots. If one always increases, then one
becomes removed from the true essence. [my emphasis]
(Rump and Chan, 1979, p. 68)

Gregory Bateson also recognizes the importance of recursive
balance when he makes the point that there are no "monotone
'values' in biology," (i.e., values that only increase or only decrease).
In ecological systems—indeed for anything that is alive—uni-
directional change is always only a subset of the more complete
truth of circuitous interaction.
Desired substances, things, patterns, or sequences of experience that are in some sense "good" for the organism—items of diet, conditions of life, temperature, entertainment, sex, and so forth—are never such that more of the something is always better than less of the something. Rather, for all objects and experiences, there is a quantity that has optimum value. Above that quantity, the variable becomes toxic. To fall below that value is to be deprived. (Bateson, 1979a, p. 59)

Recursive balance is the second of two basic criteria which Keeney (1983) proposes as being necessary for discerning a cybernetic system: "a cybernetic system . . . must have feedback structure, that is, the recursive process must involve self-correction" (p. 117). This self-healing is a product of the recursive balance generated by the complex interactive dance between the parts of the system. Healing is the wholeness (they share the same etymology—the Old English word *hal*), and the wholeness is the interactive process. *Wu wei* is the practice of respecting the wisdom of the Tao, of letting the dance proceed without interference—not by standing back and keeping out of the way, but by whirling and twirling in time with the rhythms that by dancing you help create. The recursive balance which interweaves all three levels of existence is a *Whole* which renews itself. Unity is not a thing, or a conglomerate of parts, but a process of relationship. *Unity is emergent*, and immanent in the *connections* between parts of the system. Bateson (1972) would call this layered, interactive, recursively balanced system a Mind:

---

8 The first rule is simply that "recursive organization must be perceived" (p 117).
9 Bateson (1972, p. 146) defines wisdom as "a sense or recognition of the fact of circuity."
We get a picture, then, of mind as synonymous with cybernetic system—the relevant total information-processing, trial-and-error completing unit. . . .

The individual mind is immanent but not only in the body. It is immanent also in pathways and messages outside the body; and there is a larger Mind of which the individual mind is only a subsystem. This larger Mind is comparable to God and is perhaps what some people mean by "God," but it is still immanent in the total interconnected social system and planetary ecology. (Bateson, 1972, pp. 460-461)

This resonance between Tao and Mind recalls Watts' analysis of the etymology of Tao as "intelligent rhythm." The Tao's rhythmic nature is further suggested in Chapter 5 of the Tao Te Ching where Lao Tzu likens it—by implication—to the action of a bellows:

Between Heaven and Earth,
There seems to be a Bellows:
It is empty, and yet it is inexhaustible;
The more it works, the more comes out of it.
No amount of words can fathom it:
Better look for it within you.10
(Wu version, 1961, p. 7)

A bellows moves rhythmically like the pumping of the heart, and this pulsing generates the flowing movement of air (ch'ê). It is here that flow and pattern (in this case rhythm) weave together as different expressions of the same process (Tao).

Bateson views Mind as "the pattern which connects," a meta-pattern which connects the patterns of thought, evolution, embryology, and ecology. Analogously, the Tao can be conceived as the meta-pattern which connects and is thus immanent in the sixty-four patterns of change in the I Ching.

As Keeney (1983, p. 108) notes, there is an identity in Bateson's thought between living process and mental process. The question of 10 The words "within you" render chung , or center.
how we know is thus inseparable from how we live, and the answer lies not inside our heads but in our interactive relation with the world. This is why the Nature of the Tao can only be known through natural action. One cannot subject it to relentless scrutiny as an isolable object of study and hope to learn anything, because this would involve separation (boundaries) and a kind of forced striving. When one can act truly naturally, the Tao is as much "inside" as "outside." Chang (1963) explains that

the understanding of Tao is an inner experience in which distinction between subject and object vanishes. It is an intuitive, immediate awareness rather than a mediated, inferential, or intellectual process. Tao does not blossom into vital consciousness until all distinctions between self and nonself have disappeared. (p. 19)

The distinctions disappear when one moves in accord with the natural rhythms in nature. Then there is only the interactive relationship between self and other, the recursive process of the connection. The Tao is the flowing connection. It is not "out there" like a transcendent God, but is immanent in the relationships between all things.

It is interesting to compare this approach to knowledge with "the overall framework of scientific experimentation, the technological notion of the questioning of nature under duress, [which] is the major Baconian legacy" (Berman, 1984, p. 18). Bacon is responsible for the Western scientific notion that "knowledge of nature comes about under artificial conditions. Vex nature, disturb it, alter it, anything—but do not leave it alone. Then, and only then, will you know it" (Berman, p. 17). Berman (p. 18) detects a dark hint [in Bacon] that the mind of the experimeter, when it adopts this new perspective, will also be under duress. Just as
nature must not be allowed to go its own way, says Bacon . . . so it is necessary that "the mind itself be from the very outset not left to take its own course, but guided at every step; and the business be done as if by machinery." To know nature, treat it mechanically; but then your mind must behave mechanically as well.

This of course makes sense given the relationship between mind and Mind. The subject/object split created by non-participating consciousness (Berman, 1984) will operate not only in the world, but also "inside," building walls between body and mind. In contrast, the ancient Chinese believed that one knows the Tao, or Nature, not by manipulating it, but by attuning to it, by continually adapting oneself to its course, and staying with events to their natural completions. It is only through the non-purposive practice of wu wei that one can know the Tao in the completeness of its process. If we try and comprehend a river\(^{11}\) atomistically, we might put part of it in a test tube and analyze the contents, and in so doing its most essential character—the flow—would be lost. The alternative then is to learn by following the flow without interference. Chuang Tzu (369?-286? B.C.), the famous Taoist philosopher, tells a fictional story about Confucius and a hermit which conveys this very well:

Confucius was seeing the sights at Lü-liang, where the water falls from a height of thirty fathoms and races and boils along for forty li, so swift that no fish or other water creature can swim in it. He saw a man dive into the water and, supposing that the man was in some kind of trouble and intended to end his life, he ordered his disciples to line up on the bank and pull the man out. But after the man had gone a couple of hundred paces, he came out of the water and began strolling along the base of the embankment, his hair streaming down, singing a song. Confucius ran after him and said, "At first I thought you

---

\(^{11}\) The river is one of Lao Tzu's favorite metaphors for the Tao (eg., Chs. 8, 28, 32).
were a ghost, but now I see you're a man. May I ask if you have some special way of staying afloat in the water?"

"I have no way. I began with what I was used to, grew up with my nature, and let things come to completion with fate. I go under with the swirls and come out with the eddies, following along the way the water goes and never thinking about myself. That's how I stay afloat." (Chuang Tzu, Section 19, Watson version, 1964, p. 126)

Berman (1984) would describe this as "participating consciousness," which embodies the notion that "in a literal or figurative sense, everything in the universe is alive and interrelated, and that we know the world through direct identification with it, or immersion in its phenomena (subject/object merger)" (p. 351). If we see the interactive relations of the world as primary, then it makes no sense to sever them as a method of knowing. Wheeler (1973, p. 244) discusses how this realization informs physicists who grapple with quantum theory:

Nothing is more important about the quantum principle than this, that it destroys the concept of the world as "sitting out there," with the observer safely separated from it by a 20 centimeter slab of plate glass. Even to observe so miniscule an object as an electron, he must shatter the glass. . . . One has to cross out that old word "observer" and put in its place the new word "participator." In some strange sense the universe is a participatory universe. (Cited in Capra, 1975, p. 145)

As Berman explains, "our consciousness, our behavior, becomes part of the experiment, and there is no clear boundary here between subject and object" (1984, p. 137).

Western science has thus made an important step towards constructing an epistemology of relationship, of reckoning the observer into any description of a system. Alan Watts writes:

We have been seeing all along that although Western science started out by trying to gain the greatest objectivity, the greatest lack of involvement between the observer and the observed, the more diligently this isolation is pressed, the more
impossible it is found to be. From physics to psychology, every department of science is realizing more and more that to observe the world is to participate in it, and that, frustrating as this may first seem to be, it is the most important clue of all to further knowledge [my emphasis]. (1961, p. 88)

Within the field of cybernetics, this understanding has meant a jump in an order of recursion, from simple cybernetics, which recognizes circles "out there" as observed systems, to the cybernetics of cybernetics, which is the cybernetics of observing systems (Keeney, 1983, pp. 76-78).

Bateson (1972) believed that conscious attempts to rectify situations often backfire because "consciousness deals only with a skewed sample of the events of the total mind" (p. 444), and hence it will tend to apply lineal solutions to complex, recursive relationships:

But, if the total mind and the outer world do not, in general, have this lineal structure, then by forcing this structure upon them, we become blind to the cybernetic circularities of the self and the external world. Our conscious sampling of data will not disclose whole circuits but only arcs of circuits, cut off from their matrix by our selective attention. (pp. 444-445)

Wu wei is the means by which we can know and act in the world in a circular way as part of, or complementary to the Tao. Successfully applied,\textsuperscript{12} it means the dissolution of a "skin encapsulated ego" (Watts, 1961, p. 12). If the observer isn't separate from that which is observed, then there must be more than just delimited conscious awareness. This is anything but easy:

Let me say that I don't know how to think that way. Intellectually, I can stand here and I can give you a reasoned exposition of this matter; but if I am cutting down a tree, I

\textsuperscript{12} Of course, the purposiveness suggested by the notion of "successful application" is itself a guarantee that \textit{wu wei} will be lost.
still think "Gregory Bateson" is cutting down the tree. I am cutting down the tree. "Myself" is to me still an excessively concrete object, different from the rest of what I have been calling "mind." (Bateson, 1972, p. 462)

Wu wei is not a skill which can simply be added to an already existing repertoire of behaviours, thinking modalities, and aptitudes—it is a reorientation, a paradigm shift which sees recursive change as primary, and participating consciousness as necessary for an understanding of ourselves in relation to the Tao, as participants in the pattern which connects. Without making the shift, we fall into the trap identified by Bergson (1946), where we look at change but we do not see it. We speak of change, but we do not think about it. We say that change exists, that everything changes, that change is the very law of things: yes, we say it and we repeat it; but those are only words, and we reason and philosophize as though change did not exist. (p. 131)

What then is the tao of Change? The answer, in true Taoist fashion, turns the question around. The tao of Change is the change of Tao. It is the change of change, the cyclic metapattern of change which connects all patterns of change. A circle is empty, recursive process is inexhaustible, and circuitous connections of interaction between all things is the Wholeness of Unity. The tao of Change can't be separated out as an object of study, but can be known only in relation to ourselves. And because "conscious sampling of data will not disclose whole circuits but only arcs of circuits" (Bateson, 1972, p. 444), it inherently lies beyond our conscious grasp:

Life is the follower of death, and death is the predecessor of life; but who knows their cycles (and the connections between them, i.e., the Tao)? [my emphasis]. . . (Life) is accounted beautiful because it is spirit-like and wonderful. (Death) is accounted hateful because it is foetid and putrid. But the foetid and putrid, returning, is transformed again into the
spirit-like and wonderful; and then the reverse change occurs once more. Therefore it is said that all through the universe there is one ch'i,\(^{13}\) and therefore the sages prized that unity. (Chuang Tzu, Ch. 22, Legge version. Cited in Needham, 1969, p. 76)

As Unity, the Tao connects all opposites. Thus there is no "not-Tao" opposite to and outside its boundaries. As \(Yu\) it is Being, manifest and embodied in all things; as \(Wu\) it is Non-being, latent and empty. So too with Change, which encompasses both change and non-change, pattern and chaos, as it continually recreates the wholeness of recursive balance.

Keeney (1983) warns against depicting change and stability as a dualism of polar opposites: "One cannot, in cybernetics, separate stability from change—both are complementary sides of a systemic coin" (p. 70). Insofar as change forms stability (as when the movement of water maintains the shape of a fountain), the change of change transforms stability. The change of change, termed "second-order change" by Watzlawick, Weakland and Fisch (1974) is the essence of creativity and therapy, but it is not separate from or the opposite of "first-order change," or stability. The tao of Change embodies both.

The \textit{wei wu wei} (doing without ado) of Change would then refer to the natural course of stability and transformation, or the balance of change and the change of change. Because "change of change" implies recursion, it can be seen that transformation is not something which involves separation from the self, but a \textit{turning back} to the self.

\(^{13}\) Ch'i can be thought of as the life-breath of the Tao.
The movement of the Tao consists in Returning.
(Lao Tzu, Ch. 40, Wu Version, p. 59)

The transformation is not a lineal change to a "some-thing else" but a folding in of the self into a more encompassing level of recursion.

Jung, speaking in 1932, called this process acceptance:

*We cannot change anything unless we accept it.*

Condemnation does not liberate, it oppresses. . . . If a doctor wishes to help a human being he must be able to accept him as he is. And he can do this in reality only when he has already seen and accepted himself as he is. Perhaps this sounds very simple, but simple things are always the most difficult. In actual life it requires the greatest art to be simple, and so acceptance of oneself is the essence of the moral problem and the acid test of one's whole outlook on life.

Self-acceptance is the *wu wei* of Return, the *tao* of the self. It is the self-healing of recursive process.

As "the origin of heaven and earth" and "the mother of all things" (Lao Tzu, Ch. 1, Rump and Chan version, 1979, p. 1), the Tao is the context of all change. Not transcendent, but immanent, it connects. The relationship between yin and yang is a useful way of further exploring its nature; as Gregory Bateson says, "it takes two to know one."
Chapter 3
The Complementarity of Change

In order to perceive we must draw distinctions. As Dell and Goolishian (1981, p. 178) have said, "without carving the world into pieces by naming some of its 'parts' we can see nothing." Actually, our end organs do not so much perceive the pieces themselves—i.e., "things"—but rather the differences between them. "All receipt of information is necessarily the receipt of news of difference, and all perception of difference is limited by threshold. Differences that are too slight or too slowly presented are not perceivable" (Bateson, 1979a, pp. 31-32). In order to see something as foreground, there must be a background from which it stands out in relief—or perhaps more accurately, there must be a difference which makes a difference (Bateson’s, 1979a, p. 250, definition of "information"), which allows for the distinction between foreground and background. Boundaries and limits are requisite for Mind.

A world of sense, organization, and communication is not conceivable without discontinuity, without threshold. If sense organs can receive news only of difference, and if neurons either fire or do not fire, then threshold becomes necessarily a feature of how the living and mental world is put together.

Chiaroscuro is all very well, but William Blake tells us firmly that wise men see outlines and therefore they draw them. (Bateson, 1979a, pp. 223-223)
It follows from this that the Tao, which is everything and embodies all opposites, can never be perceived because there is no "not-Tao," no "other" which can serve as background. The differentiation of yin and yang creates a boundary which, because it can be discerned, brings the process of the Tao into existence.¹ The phenomenal world thus begins with the splitting of the Tao.

Tao gave birth to One,
One gave birth to Two,
Two gave birth to Three,
Three gave birth to all the myriad things.

All the myriad things carry the *Yin* on their backs and hold the *Yang* in their embrace, Deriving their vital harmony from the proper blending of the two vital Breaths.

(Lao Tzu, Ch. 42, Wu version, p. 61)

The introduction of limits, through perceiving or naming, means the loss of the Tao, but process—*change*—remains as the matrix.

Our sensory system—and surely the sensory systems of all other creatures (even plants?) and the mental systems behind the senses (i.e., those parts of the mental systems inside the creatures)—can only operate with *events* which we can call *changes.*

The unchanging is imperceptible unless we are willing to move relative to it. (Bateson, 1979a, p. 107)

Our eyes, for example, are continually oscillating, and these saccadic movements are essential to vision. If an image is frozen relative to this motion (for example by fitting the eye with a contact lense, upon which is mounted a small tower with a photographic transparency at the top of it), it disappears (R.L. Gregory, 1979, pp. 58-59). Difference is created by change.

¹ The word "exist" comes from the Latin *ex- out* + (*s)ister, to stand: to stand out, be perceptible, hence to exist.
The beginning of thinking about any sort of mental life is always related to change. You see, the difference which is static is not perceptible except by your changing your position of your eye... so that what you have is a world which is fundamentally and primarily, and is entirely built upon change, out of which world we then deduce, induce, somehow reach the conclusion that there are states which are static, there are conditions of various kinds and so on. And all that is secondary. (Bateson, 1980b)

The designation of yin and yang is at once a separation, and a connection. It is a separation because a discontinuity is introduced, a difference is created. It is a connection because the distinction—any distinction—creates a relationship in which each side mutually defines the other. Bateson (1975a) asks rhetorically "are there any total divisions between things? Is there a place or time where one thing begins and another ends? If so then clearly there could be no causal or logical interaction between them!" (p. 148, nt.). Yin only exists in relation to yang, and vice versa.

Cartesian epistemology does not recognize this. Distinctions are understood only in terms of separation, and the resulting dichotomous entities are considered to be mutually exclusive, each with the potential for an independent existence. Descartes, in his Discourse on Method (1637) wrote:

I knew that I was a substance whose whole essence or nature is only to think, and which, in order to be, has need of no locus and does not depend on any material thing, in such a way that this self or ego, that is to say, the soul by which I am what I am, is entirely distinct from the body... and even if the body ceased to exist, my soul would not cease to be all that it is. (cited in Wilden, 1972, p. 212)

Wilden (1972) comments:

Following on some aspects of classical ontology and epistemology, of which it is only a variant, the Cartesian 'revolution' made the crucial absolutist and analytical error
(for us) of unjustifiably conferring at [sic] privileged ontological status on entities ('substance') as opposed to relationships ('attributes','accidents'). In spite of Aristotle, Hegel, and Marx, the truth that entities do not create relationships so much as relationships create entities, was (and still remains) generally obscured. (p. 215)

A belief in the primacy of objects is simply a different expression of the belief that there can be separation without connection. This is an either/or epistemology which views boundaries as impermeable walls. There is nothing at all wrong with separation per se, but when it is given status as an absolute, the wholeness of recursive process is torn asunder. Since wholeness is health (they both derive from the Old English word *hal*), the denial of connection is ultimately pathological. When one or another side of a distinction is given the ontological status of a complete thing (as in Descartes' soul), problems will arise because the integrity of the defined entity can only be maintained through constant and vigilant denial of the other side. What is this but connection? But it is a constricted connection, a Berlin-like wall which precludes completion, and thus maintains alienation.

Consider, for example, the painful and destructive fusion between divorced couples who continue to fight without resolution. Their separation is at one level a severing of their connection, but at another the relationship is maintained, characterized by distrust, disrespect, competition, insecurity, discomfort, misunderstanding, and lack of support. Isolina Ricci (1986) calls this "negative intimacy." To the extent that their relationship remains unresolved, each person defines him or herself in reaction to the other, and is thus caught in a constricted connection where the flow necessary for wholeness is
not possible. Blake (1971), in "The Marriage of Heaven and Hell" (1790), said: "Damn braces. Bless relaxes" (p. 110). When the connection is damned, the flow is dammed, and the resulting interaction is a parody of yin and yang.

The problems inherent in dichotomous separation are recognized by Maslow (1966), who discusses how the cloistered insularity of orthodox science and religion has meant that "they are both pathologized, split into sickness, ripped apart into a crippled half-science and crippled half-religion. This either-or split forces a kind of either-or choice between them" (p. 119).

Both orthodox science and orthodox religion have been institutionalized and frozen into a mutually excluding dichotomy. This separation into Aristotelian \textit{a} and \textit{not-a} has been almost perfect, as if a line had been drawn between them in the same way that Spain and Portugal once divided the new world between themselves by drawing a geographical line. Every question, every answer, every method, every jurisdiction, every task has been assigned to either one or the other, with practically no overlaps. (Maslow, p. 119)

Newton in fact embodied this split. As a young man he was fully steeped in the participating consciousness of the occult sciences, especially alchemy,

but for both psychological and political reasons, Newton found it necessary to repress that side of his personality and his philosophy, and to present a sober, positivist face. In significant ways, the evolution of Newton's consciousness reflects . . . the evolution of Western consciousness in general. (Berman, 1984, p. 109)

This is the non-participating consciousness which denies connection, which follows Descartes in his attempt to "stabilize with final clarity an ancient dualism: the split between subject and object" (Lancelot Whyte, 1962, p. 23; cited in Wilden, 1972, p. 215n). The dichotomous epistemology of Newton and Descartes continues to inform us today.
Berman (1984) notes that "modern scientific thinking, if not the
classic of contemporary rational-empirical thought in general,
remains, in essence, profoundly Newtonian" (p. 108), and he considers
this a threat to our humanity and to our world:

Modern science and technology are based not only on a hostile
attitude toward the environment, but on the repression of the
body and the unconscious; and unless these can be recovered,
unless participating consciousness can be restored in a way
that is scientifically (or at least rationally) credible and not
merely a relapse in naive animism, then what it means to be
a human being will forever be lost. (p. 125)

The search for our "self," for our humanness, must lead us not inside
our heads where Descartes mistakenly located it, but to the
recursive relationship which joins us with the world. Living process
is fundamentally a connection, a Mind whose pattern begins with a
distinction—the relationship between yin and yang.

The most common way pattern is ignored or disregarded is
through reification, where a description of a relational process takes
on a life of its own and is thought of and treated as a bounded
thing. Glasser's notion of genetically encoded needs are a case in
point. He believes, for example, "that fun is a basic genetic
instruction for all higher animals because it is the way they learn"
(1984, p. 14). He has taken the lived reality of play as a context for
learning, turned it into a "need," and located it in our genes as a
cause of observed behaviour.

Another example of reification can be found in the literature
on dyslexia. In an attempt to make a theoretical contribution to the
understanding of learning disabilities, Blackman and Goldstein (1982,
p. 106) invoke the notion of "cognitive style" ("best understood as a
hypothetical construct developed to explain the relationship between
stimuli and responses"). They state: "We do not know whether learning disabilities are the cause or the result of an individual's cognitive style" (p. 106). A relationship, the context of learning, is explained by reducing it to a construct—"cognitive style"—and locating in the child, who is only one side of the learning, one side of the interaction. This abstraction is given the status of a "thing" which becomes so real that it is thought capable of being either a cause or an effect of learning disabilities. Such "imperfectly defined explanatory notions," Bateson remarks, are commonly used in the behavioral sciences—"ego," "anxiety," "instinct," "purpose," "mind," "self," . . . and the like. For the sake of politeness I call these "heuristic" concepts; but, in truth, most of them are so loosely derived and so mutually irrelevant that they mix together to make a sort of conceptual fog which does much to delay the progress of science. (Bateson, 1972, p. xviii)

To repeat Wilden's point, the problem with these notions is that they make the Cartesian error of "conferring . . . ontological status on entities . . . as opposed to relationships" (1972, p. 215). This is the equivalent of trying to explain the behaviour of a male tennis player in an important competition by looking at the action on only one side of the net. A ball appears from nowhere and returns to nowhere, and the player's staccato bursts of running, his sudden violent arm motions, and his changes in mood from ecstatic joy to self-deprecatory anger can only be explained by invoking internally localized instincts, needs, or diseases. However, within the context of a tennis set, in which some games are won and others lost, the body movements and emotional shifts are natural expressions of the unfolding relationship.
In all three examples cited—the genetic "need" for fun, the "cognitive style" of the child with a learning disability, and the spasmodic tennis player—a boundary is drawn and the resulting separation is treated as absolute; the necessary and concomitant connection which is also created by the distinction is ignored. And losing the connection means losing the context.

The word "context" comes from the Latin con—together + texere, to weave, thus meaning to weave together, interweave, join together, compose (Oxford English Dictionary, 1971, p. 536). Bateson (1975a) argues that "without identification of context, nothing can be understood" (p. 147). Take, for example, the word red. Without the context of a sentence it would be impossible to say what it means. Is it a color or a communist? And even if we specify it as the color of a person's face, does it indicate embarrassment or high blood pressure, anger or sunburn?

In contrast to the dichotomous, "either/or" epistemology of orthodox science, Taoism is characterized by a "both-and" epistemology which is sensitive to context. Within the former, Cartesian world-view, the attributes usually associated with yin—i.e., "dark," "lower," "feminine," "following," "inward," and so on—would be considered integral unto themselves, having no necessary connection to the attributes associated with yang—i.e., "light," "upper," "masculine," "leading," "outward," etc. But such is not the case. The interweaving of yin and yang means that nothing exists in isolation, everything exists in relation. Night is different from day, following is different from leading, femininity is different from masculinity, but each only exists relative to the other.
Recalling the T'ai Chi symbol (Fig. 2), this interdependence can be expressed by labelling the two polarities as YIN\textsuperscript{yang} and YANG\textsuperscript{yin}. Thus yin can be better thought of as DARK\textsuperscript{light}, LOWER\textsuperscript{upper}, FEMININE\textsuperscript{masculine}, FOLLOWING\textsuperscript{leading}, and INWARD\textsuperscript{outward}, and yang characterized as LIGHT\textsuperscript{dark}, UPPER\textsuperscript{lower}, MASCULINE\textsuperscript{feminine}, LEADING\textsuperscript{following}, and OUTWARD\textsuperscript{inward}. Because yin and yang cannot be considered separately, they cannot be conceived as entities in relation; alone they are nothing.

Lionel Kearns (personal communication, April 21, 1985) says much the same thing in a visual poem called "The Birth of God":

![Figure 6](#)

"The Birth of God"
The circularity underlying the *movement* of the two polarities is conveyed in an interesting diagram of Capra’s (1975): \[ /]

![Diagram of Yin and Yang](image)

**Figure 7**

**The Dynamic Unity of Polar Opposites**

The dynamic unity of polar opposites can be illustrated with the simple example of a circular motion and its projection. Suppose you have a ball going round a circle. If this movement is projected on to a screen, it becomes an oscillation between two extreme points.... The ball goes round the circle with constant speed, but in the projection it slows down as it reaches the edge, turns around, and then accelerates again only to slow down once more—and so on, in endless cycles. In any projection of that kind, the circular movement will appear as an oscillation between two opposite points, but in the movement itself the opposites are unified and transcended. This image of a dynamic unification of opposites was indeed very much in the minds of the Chinese thinkers. (p. 150)

And yet despite the balance, despite the interdependence, there is a curious sense in Taoism that yin is somehow favoured, somehow closer to the Tao, more “Tao-like” than yang. Needham (1961) muses

---

2 I have altered it slightly, placing yang at the top and yin at the bottom. In the *I Ching*, yang tends to move upward, while yin moves downward.
that "if it were not unthinkable (from the Chinese point of view) that the Yin and the Yang could ever be separated, one might say that Taoism was a Yin thought-system" (p. 61). I believe both statements are true: yes, yin and yang cannot be separated, and yes, in a way, Taoism is a yin thought-system.

There is a resonance here between this seeming paradox of Taoism and the relationship between connection and separation. I believe that by giving a shape to the knot of the "paradox," the nature of Taoism, perception, Mind, and of course, Change can be further illumined. To this end, I will first describe the pattern of the knot, and then use a number of examples—as different kinds of "rope"—to show how it manifests.

As far as I know, the pattern was first given form by Francisco Varela in a paper called "Not One, Not Two" (1976). I encountered it through Keeney (1983, 92-94) who calls it a "cybernetic complementarity" (p. 92). The basic form looks like this:

"the it" / "the process leading to it"

Keeney (p. 92) says that if both sides are considered different, yet related,

you approach a cybernetic framing of distinctions. This frame permits different sides to be seen as an "imbrication of levels, where one term of the pair emerges from the other" (Varela, 1976, p. 64). The relationship between the sides of these distinctions is self-referential, where one side is (re)cycled out of the other.

Keeney (p. 93) emphasizes that a cybernetic complementarity involves different orders of recursion, which demonstrate how "pairs (poles, extremes, modes, sides) are related and yet remain distinct" (Varela, p. 62). When the two sides of a distinction are at the same
level of recursion, Varela suggests that they be considered components of the right hand side of the "/", part of a larger cybernetic complementarity (Keeney, pp. 93-94). A more complete description of the formula thus becomes:

Take any situation (domain, process, entity,\textsuperscript{3} notion) which is holistic (total, closed, complete, full, stable, self-contained). Put it on the left side of the /. Put on the right side of it the corresponding processes (constituents, generators, dynamics). (Varela, p. 63, cited in Keeney, p. 92)

The cybernetic complementarity of Taoism would thus be expressed as:

\[
\text{Tao} / \text{(yin/yang)}\textsuperscript{4}
\]

The left side is inclusive of the right, but is dependent on it for expression. Note the complementarity operates at \textit{two levels}—one between yin and yang, and the other between yin-and-yang and the Tao. As Varela says, each side emerges out of the other, and this too is true at both levels. A more generalized pattern would be:

\[
\text{Unity} / \text{Difference}
\]

But the \textit{recursiveness} of the knot is more apparent if it is fully spelled out as:

\[
\text{Connection} / \text{(connection/separation)}
\]

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Figure_8.png}
\caption{The Knot of Complementarity}
\end{figure}

\textsuperscript{3} Given my discussion of Cartesian epistemology above, I would quarrel with the notion that an entity can in any way be considered complete.

\textsuperscript{4} In a sense, this is simply a different representation of the T'ai Chi symbol (Figure 2).
The slashes ("/") themselves assert the connection and separation of Connection and connection and separation. The recursion reminds us that Connection is always a process, and that the perception of difference is dependent on change. We are now in a position to explore the variety of fabrics which are tied in this knot. Some we have already encountered, some are new.

**Life / (life/death):** Life is the process of Connection—this is the governing context which makes it possible to put pattern, order, memory, and love on the left side of the "/". "Into the same river no man can step twice, 'not because the universe is in flux, but because it is organized and integrated" (Bateson, 1975a, p. 143). Barry Commoner (1971) explains it this way:

> Every living thing is dependent on many others, either indirectly through the physical and chemical features of the environment or directly for food or a sheltering place. Within every living thing on the earth, indeed within each of its individual cells, is contained another network—on its own scale, as complex as the environmental system—made up of numerous, intricate molecules, elaborately interconnected by chemical reactions, on which the life-properties of the whole organism depend. (p. 18)

Everything is connected at both a micro and macro level, but if there were no separation there could be no life and no Life. Without death there would be only lineal change, unidirectional growth and no balance. Balance depends on the recursive interaction of the distinctions on the right hand side of the "/". In the language of the I Ching, the denial of death and the desire to move only in one direction is "ex-orbitant":


"ex-orbitant" speaks of:

- knowing when to step forward but not backward
- accepting life but not death
- knowing when to grasp but not to let go

only sages know when to step forward and backward
how to accept life and death

do not slip from attunement

only sages

(Yü and Flemons, 1983, p. 26)

Connection depends on separation, and adaptiveness depends on letting go. The acceptance of death and its analogues occurs at the level of the individual; at the level of the whole—an ecosystem or the planet—this translates into an acceptance of Life. The context for death is Life.

Nature avoids (temporarily) what looks like irreversible change by accepting ephemeral change. "The bamboo bends before the wind," in Japanese metaphor; and death itself is avoided by a quick change from individual subject to class. Nature, to personify the system, allows old man Death (also personified) to have his individual victims while she substitutes that more abstract entity, the class of taxon, to kill which Death must work faster than the reproductive systems of the creatures. Finally, if Death should have his victory over the species, Nature will say, "Just what I needed for my ecosystem." (Bateson, 1979a, pp. 114-115)

**Pattern / (pattern/randomness):** We cannot perceive without imposing pattern. Bateson suggests that "the whole problem of defining what is meant by the word *pattern* can be approached through [moire] phenomena," and asks:

Do we, in fact, carry around with us (like the blind person's sonar) samples of various sorts of regularity against which we can try the information (news of regular differences) that comes in from outside? Do we, for example, use our habits of what is called "dependency" to test the characteristics of other persons? (1979a, p. 89)

Given the participatory nature of observation, it is obvious that any recognition of randomness is necessarily dependent on patterning it
as such. Randomness can only be understood within the context of pattern—in order to apprehend it, we pattern it. G. Spencer-Brown (1957) writes:

The essence of randomness has been taken to be absence of pattern. But what has not hitherto been faced is that the absence of one pattern logically demands the presence of another. It is a mathematical contradiction to say that a series has no pattern; the most we can say is that it has no pattern that anyone is likely to look for. The concept of randomness bears meaning only in relation to the observer; if two observers habitually look for different kinds of patterns they are bound to disagree upon the series which they call random. (p. 105. Cited in Keeney, 1983, p. 53).

Nevertheless, randomness is crucial to change: "the new can be plucked from nowhere but the random" (Bateson, 1979a, p. 49).

This is another way of saying that we live within the context of a patterned world, but the unraveling of pattern is essential if life is to exist.

**Memory / (remembering/forgetting):** Memory is an expression of the connection of relationship as it unfolds through time. As the pattern of "Connection / (connection/separation)" becomes more recognizable, it becomes easier to understand Bergson's (1946) assertion that memory has no need of explanation. Or rather, there is no special faculty whose role is to retain quantities of past in order to pour it into the present. The past preserves itself automatically. Of course, if we shut our eyes to the indivisibility of change, to the fact that our most distant past adheres to our present and constitutes with it a single and identical uninterrupted change, it seems that the past is normally what is abolished and that there is something extraordinary about the preservation of the past: we think ourselves obliged to conjure up an apparatus whose function would be to record the parts of the past capable of reappearing in our consciousness.
But if we take into consideration the continuity of the inner life and consequently of its indivisibility, we no longer have to explain the preservation of the past, but rather its apparent abolition. We shall no longer have to account for remembering, but for forgetting. (Bergson, 1946, p. 153)

Memory is an expression of the connection which is life. It is no accident then that philosophers in the Hermetic tradition, whose approach to knowledge is participatory, and who are interested in the connections between things, should also be interested in memory. Frances Yates (1966) remarks that she has "always found that the Hermetic or occult philosopher is likely to be interested in the art of memory" (p. 311).

The mind doesn't remember; it is memory. And given that mind is not inside our heads but is pattern in relation (Bateson), we will discover memory in our orientation to the world. We never forget how to ride a bicycle, for example, once our bodies experience the balance of body position in relation to handlebars, seat, pedals, and motion. And a piano player's hands can remember whole pieces of music without requiring focused conscious attention. There is the memory of the music, but this is woven into the memory of the orientation of the hands and body to the keyboard itself:

With eyes closed, I can sit down at the piano, gain an initial orientation with the merest touch "anywhere" on the field, then reach out and bring my finger precisely into a spot "two feet" off to my left, where a half inch off is a mistake, come back up "seventeen inches" and hit another one, and go down "twenty-three inches" and get there at a fast clip. . . . Through repeated work in chord grabbing, an alignment of the field relative to the body's distancing potentials begins to take place, and this alignment process varies in delicacy and need in accordance with the form of the music. (Sudnow, 1978, p. 16)

Forgetting always occurs within the context of patterned mind. This relates to the discussion of negation in the previous chapter.
Saying "no" to something is a denial, an attempt to push it away—but mental life is governed by connection. We cannot will ourselves to forget something, because in so doing we highlight that which we are attempting to banish. Healthy separation (forgetting) can only be a process of "letting go"; it can never be forced. And it must happen at the proper time. This is *wu wei*. As long as our relationship to something—or perhaps more often someone—is a difference which makes a difference, it is the stuff of information and is patterned as part of the recursive nature of shared Mind: "After all, the simplest cybernetic circuit can be said to have memory of a dynamic kind—not based upon static storage but upon the travel of information around a circuit" (Bateson, 1972, p. 459). We only forget when the relationship no longer matters—when the difference makes no difference; then, and only then, can the pattern unravel *on its own*.

**Acceptance / (acceptance/denial):** At the end of the last chapter (p. 36) I introduced the notion that acceptance is integral to change. Reynolds (1984) laments that we aren't taught the usefulness of accepting reality, both that part of it we can change and that part we can't. We may see acceptance as sort of giving up, a last resort. In fact, acceptance of the way things are is always the first step in changing things. Denial of reality, resistance to reality, fantasies, and even elaborate plans don't accomplish change. (p. 35)

But what is it about acceptance that makes change possible? When we deny something we fix it in place, and, as we saw in the previous example, in memory. If "no system . . . can produce anything new unless the system contains some source of the
random" (Bateson, 1979a, p. 193), then change is dependent on the capacity of a person or a system to let connections dis-integrate, to accept death within Life. Denial defines and cements connections, acceptance opens and releases them.

Acceptance is symbolized by the interpenetration of yin and yang in the T'ai Chi symbol (see Fig. 2). Their mutual and interflowing relationship attests to the fact that things don't change, relationships change. Were yin to attempt to deny yang, it would fortify the boundary between them and try to banish the other's essence from its core. Enforced separation (denial) produces dichotomous opposites whose relationship is stiff and rigid (see Fig. 9).

![Figure 9](image.png)

**Figure 9**

The Rigidity of Denial

What is this but death?
When living, a person is soft and supple. When dead—hard and rigid. When living, a plant is soft and tender. When dead—withered and dry.

Hence, the hard and rigid belongs to the company of the dead:
The soft and supple belongs to the company of the living.
(Lao Tzu, Ch. 76, Wu version, p. 109)

In a rigid relationship the only change, as in death, is decay.

Living, adaptive change is introduced through the flexible connectivity of acceptance. Fisch, Weakland, and Segal (1982, pp. 219-254) describe a case of a violinist who, though apparently a competent musician, becomes extremely anxious when performing in front of even one or two people. It was so bad when he was eighteen that he quit music entirely for 10 years. He had recently returned to playing and was attempting to conquer the anxiety by the same means he had employed before: trying hard to "get opportunities to perform, for better or for worse" (p. 228).

The client's response to the problem can be described quite accurately as denial. He either avoids it by not playing, or tries to separate from it by pushing it away, by simply trying harder to play better. This only ensconces it all the more. The therapist in the case makes a number of different interventions, all of which make connections of some sort—either to family, the audiences the client performs for, or to the symptom itself—but I would like to

---

5 This is Jou, the word Dr. Yu and I translated as "adaptive." See the knot "Adaptation / (adaptive/decisive)" for further elaboration.

6 I have altered the sentence construction of the first stanza in order to replace Wu's "man" with "person" as a translation of jen.
focus on three that most clearly demonstrate the role of acceptance in change.

The client is asked to consider the potential disadvantages of changing, and he eventually responds by saying that he might end up having to teach students with little or no talent, or he might discover that he is only a mediocre musician:

And I'd see if I'm heading—for example, more students to take, which I don't like. . . . More bad students. And . . . then I would be in a position once in a while of having to hurt people's feelings, which I really don't like to do. . . . And I would have to face my own inadequacies as a performer. (Fisch, Weakland, & Segal, 1982, p. 251)

The violinist hates his anxiety and dreams of the positive advantages that would obtain were he free from it. But by looking at some of the potential disadvantages of change, he is in a position to better accept his present problem. Rather than pushing "here" away in order to reach "there," "here" must be folded back into itself and allowed to freely evolve.

The therapist remarks at one point that instead of forgetting the music while he is performing, it is too bad he can't have a different sort of memory slip: "all you'd have to do is instead of forgetting the music, would be to forget the audience" (p. 248). As was discussed above under the section on memory, the audience will be forgotten when it no longer makes a difference, and for this to happen he must first make a positive connection with it, in terms of what is happening for him at the time. To this end, the therapist suggests: "When you are in that position, at the start of your

7 I should note that the authors do not explain their work within the framework being outlined here.
concert, you can get up and announce to the audience what your problem has been, and then you could play*8 (p. 247). He also explores the possibility of the client *deliberately* setting out to perform badly (p. 242), which would connect him positively with the symptom itself.

The Milan Associates' use of "positive connotation" can be understood in a similar way.

It thus became clear that access to the systemic model was possible only if we were to make a positive connotation of *both* the symptom of the identified patient and the symptomatic behaviors of the others, saying, for example, that all the observable behaviors of the group as a whole appeared to be inspired by the common goal of preserving the cohesion of the family group. In this way, the therapists were able to put *all* the members of the group on the same level, thus avoiding involvement in any alliances or divisions into subgroups, which are the daily bread of such systems' malfunction.

Dysfunctional families are in fact regularly, especially in moments of crisis, prone to such divisions and factional battles. (Selvini Palazzoli, Boscolo, Cecchin, & Prata, 1978, p. 56)

The dysfunctional family is held in place by virtue of its schisms. The "patient" can be understood as the embodiment of the family's problems; in negatively connoting him or her as "different," a wall is erected which dichotomously separates "those who are healthy" from "he or she who is sick." The *family* problems, denied, are sealed away *inside one person*. Boscolo and Cecchin (1985) note that whereas negative connotation freezes process, positive connotation mobilizes it. The latter is simply a way of introducing acceptance into the system—it *allows* for change precisely because it doesn't

---

8 I recently attended a conference at which the keynote speaker, Richard Bolles (1986) (author of "What Color is Your Parachute?") began his talk by explaining that he is always nervous speaking in front of crowds. He then proceeded to deliver a dazzling presentation.
demand it. When family members' actions are positively connotated by the therapist and themselves, they no longer need to become something other than they are in order to change. The desire to be different is itself a kind of denial which prevents change from happening.

By implying with a negative judgment that the system should change, one rejects that system, in that it is characterized by a prevalent homeostatic tendency. . . . One would be committing the theoretical error of drawing an arbitrary dividing line between two of the equally functional characteristics in every living system—the homeostatic tendency and the capacity for transformation—as if the two were opposites, the former "bad" and the latter "good." (Selvini Palazzoli, Boscolo, Cecchin, & Prata, 1978, p. 57)

Denial is only a problem when it takes residence on the left side of the "/", as in: "Denial / (denial/acceptance)." The change effected by positive connotation can be understood as a transformation of the family's organizing principle from this pattern, to one of "Acceptance / (acceptance/denial)." Denial within the latter context is appropriate and healthy. It is vital, for example, to set clear limits in any relationship. The ability and necessity of saying "no" to children—and meaning it—is an act of love, of Acceptance.

Complementarity / (complementarity/symmetry) In classifying interactional patterns, Bateson (1979a) distinguishes between two. He calls a relationship symmetric when it can be described in terms of competition, rivalry, mutual emulation, and so on (i.e., those in which A's action of a given kind would stimulate B to action of the same kind, which in turn, would stimulate A to further similar actions. And so on. If A engaged in boasting, this would stimulate B to further boasting, and vice versa. (p. 213)
The most illustrative example of a symmetrical relationship in the animal kingdom is surely the head butting of male Big-Horn sheep. They charge simultaneously and meet as if they were each crashing into their reflection in a mirror. As far as humans are concerned, the armaments buildup between the U.S. and the U.S.S.R. is profoundly symmetrical, in that repeated advances by one side signals the other to respond in kind.

On the other hand, Bateson (1979a) terms complementary those "interactional sequences in which the actions of A and B [are] different but mutually [fit] each other (e.g. dominance-submission, exhibition-spectatorship, dependence-nurturance)" (p. 213). A dog chasing a cat can be considered a kind of circular whole where the dog chasing signals the cat to run, and the cat running signals the dog to chase. The relationship between parents and children, or teacher and student are also complementary in that their differences complete each other in interactions of mutual fit. This is of course the nature of yin and and yang.

But it is also true, and this is where it all gets very interesting and double-tiered, it is also true that any part of a relationship or system—either symmetrical or complementary—is complementary to the system as a whole. Yin is complementary to yang, and yang to yin, but they are also complementary to their relationship, to the Tao. Species have their ecological niche, which is to say they have a complementary relationship with a network of other life forms.

What are the implications of this? For one thing it means that no part can have unilateral control of a system of which it is a part:
Consider what "in charge" is commonly supposed to mean. We say that the steersman is in charge of the ship, and by this we mean that he controls the beginning of a chain of causes and effects from the steering wheel to the pressure of the rudder upon the water through which the ship is (it is hoped) moving. This, however, is not quite true. The steersman himself is controlled by the movements of the ship relative to a (stationary) compass needle. The ship, in part, controls the steersman through the information provided by the compass. The steersman is only a part of a circular interactive system. He will do well to handle his ship with a certain humility. His control is not so complete as to justify arrogance. He is not the beginning of lineal chain of causes.

Similar considerations apply with much greater force to the human being who would control complex circuits in which the links are themselves human; and the objection to extreme dictatorship is precisely that the dictator and his people are prone to believe that he is really in charge. (Bateson, 1970, p. 361)

We run into problems when we think a part can control a whole (i.e., be "one-up" on it), or can enter into a symmetrical relationship (of "equals") with it. It is not possible for "man to conquer nature" and any characterization of this sort is hubris of the most dangerous kind.

It is not asserted that all transactions between human beings ought to be complementary, though it is clear that the relation between the individual and the larger system of which he is a part must necessarily be so. (Bateson, 1972, p. 337)

The creature that wins against its environment destroys itself. (p. 493)

Recursive balance is corrective of hubris in that there is a necessary interplay between complementary and symmetrical aspects of any relationship. Yang can be found at the core of yin and vice versa. We can thus answer Bateson's query—"is complementarity always somehow better than symmetry?" (1972, p. 336)—by saying yes in terms of the relationship of individual to
whole, and *no* in terms of the relations between individuals. A healthy complementary relationship does not fit rigidly, but has at its heart a proposition of symmetry. As a child grows up parents must adapt the nature of their nurturance to allow him or her to become an "equal" adult. And a symmetrical challenge can be thought of as a struggle to define complementarity. This is elaborated in the following example.

**Cooperation / (cooperation/competition):** Darwin's phrase "survival of the fittest" suggests that competition is the context for species interaction. It would be more accurate to reformulate the notion as "survival of the fitting." Species do not evolve in and of themselves, but co-evolve within the network of their relations. Cooperation refers to the continuation, the survival of the relationship through time. Competition is a challenge to the nature of the connection, but it is itself also a relationship, and thus is necessarily a kind of cooperation.

When male Big-horn sheep butt each other they are engaging in a competitive, symmetrical struggle to define a complementary relationship. They are fighting for consensus on how they will be organized. What stops them from killing one another? Given the context of Cooperation they need fight only so long as it takes to reach consensus on which animal will be dominant in relation to the other. They both participate in that decision and the maintenance of the resulting complementary relationship.

It is correct but difficult to recognize that the U.S. and the U.S.S.R. are cooperating in their arms race. By continuing to
threaten the other with war, they each contribute to the continuation of the relationship. Cooperation is not the opposite of competition but its complement and context. Bateson (1979c) recognizes two possible outcomes of the arms race: "One is the use of the accumulated weapons in warfare and the probable destruction of the mammalian way of life. The other involves that deliberate risk which we call trust." In a sense, both sides are acting as if their relationship were founded on the epistemological pattern of "Separation / (separation/ connection)." This knot is the essence of pathology. The only true Separation is the death of all Connection, which is the first of Bateson's projected outcomes. For the relationship to continue, for the Connection of life to persist, there really is no alternative to both sides accepting the fact of their inherent connection and cooperating in the flowing maintenance of it. Trust is Connection.

**Adaptation / (adaptive/decisive):** Two words used throughout the *I Ching* as synonyms of yin and yang are, respectively, *jou* or "adaptive," and *kang* or "decisive" (Yu and Flemons, 1983). An understanding of their relationship to each other and to Adaptation in general will help explain the question posed earlier: how can there be balance between yin and yang when yin is somehow closer in nature to the Tao?

The Chinese character for *jou* depicts a tree which is both straight and gnarled, symbolizing adaptiveness to a changing environment. The word *kang* is a picture of a knife.

---

9 Wilhelm translates them as "yielding" and "firm" respectively.
cutting the substance on the left. Its English equivalent "decisive" is derived from the Latin de- off + caedere cut. Their balance is expressed in many ways; some examples in the COMMENTARY text of different hexagrams include:

**Sprouting**

*decisive and adaptive begin entwining—
grows through obstruction*  
(Yü and Flemons, 1983, Hex. 3, p. 36)

**Treading**

*adaptive treads on the decisive
opens up and echoes with enflaming inspiration—
thus treading on the tiger's tail*  
(Yü and Flemons, Hex. 10, p. 57)

**Alienation**

*inward—yin    outward—yang
inward—adaptive    outward—decisive*  
(Yü and Flemons, Hex. 12, p. 63)

The balance between yin and yang is also clearly evident in Chapter 2 of the *Tao Te Ching*, where each can be thought of as "emerging from the other." One can arrive at yang by going to the extreme of yin and vice versa.

The hidden and the manifest give birth to each other.  
Difficult and easy complement each other.  
Long and short exhibit each other.  
High and low set measure to each other.  
Voice and sound harmonize each other.  
Back and front follow each other.  
(Lao Tzu, Ch. 2, Wu version, p. 3)

But at the level of context Taoism comes down on the side of adaptiveness, as it is essentially a philosophy of Adaptation. The Tao is the flow which connects all things in their unfolding systemic

---

10 Both words are used as noun-forms throughout our translation.
relationships; in order to attune to its changing, to not interfere, it is necessary to be "soft" like water, to adapt, as it were, to the shape of the land and seek the lowest point.

The highest form of goodness is like water. Water knows how to benefit all things without striving with them. It stays in places loathed by all people.\textsuperscript{11} Therefore, it comes near the Tao.

(Lao Tzu, Ch. 8, Wu version, p. 11)

Water always assumes a complementary position; it doesn't compete. This yin-like action is similar to the practice of \textit{wu wei}, and as such is close to the Nature of the Tao.

Herein is the subtle wisdom of life: The soft and the weak overcomes the hard and the strong.

(Lao Tzu, Ch. 36, Wu version, p. 53)

A similar orientation can be found in many other chapters, not only in the many water images, but also in the associations between the Tao and women, and the description of the Tao in terms of actions which are characteristic of adaptation and withdrawal. For example:

The Spirit of the Fountain dies not. It is called the Mysterious Feminine. The Doorway of the Mysterious Feminine is called the Root of Heaven-and-Earth.

(Ch. 6, Wu version, p. 9)

In the opening and shutting of heaven's gate, Are you able to play the feminine part?

(Ch. 10, Wu version, p. 13)

\textsuperscript{11} I have substituted "people" for John Wu's "men" as a translation of \textit{jen}.

Hesitant like one wading a stream in winter;  
Timid like one afraid of one's neighbours on all sides;  
Cautious and courteous like a guest;  
Yielding like ice on the point of melting;  
(Ch. 15, Wu version, pp. 19-21)

And perhaps most illuminating:  

Know the masculine,  
Keep to the feminine,  
And be the Brook of the World.

Know the glorious,  
Keep to the lowly,  
And be the Fountain of the World.  
(Ch. 28, Wu version, p. 39)

Know the decisive, but keep to the adaptive; know yang but recognize that the context for action is yin. Being adaptive means following the Tao—staying connected by remaining complementary to the whole. Being decisive, in contrast, means establishing boundaries (i.e., separating), discerning differences, and taking the lead. This too can be a way of attuning to the Tao—acting decisively at the right time and in the right circumstance can be most adaptive.

*decisive in place—  
*echoes with time's pace*  
*(Yü & Flemons, Hex. 33, COMMENTARY, p. 126)*

*decisive centers and echoes—  
*thoroughly free flowing with attunement:  
*heaven's tao*  
*(Yü & Flemons, Hex. 19, COMMENTARY, p. 84)*

Decisiveness is only "ex-orbitant" when it is untempered by yin, and thus unidirectional in its application.

*As for holding to fullness,  
*Far better were it to stop in time!*

---

12 Again, I have modified the male pronouns.
Keep on beating and sharpening a sword,
And the edge cannot be preserved for long.

Fill your house with gold and jade,
And it can no longer be guarded.

Set store by your riches and honour,
And you will only reap a crop of calamities.

Here is the tao\(^{13}\) of Heaven:
*When you have done your work, retire!*
(Lao Tzu, Ch. 9, Wu version, pp. 12-13)

The same two-level complementarity of "Adaptation / (adaptive/decisive)" in Taoist philosophy is also the pattern which informs the Taoist martial art T'ai Chi Ch'uan (grand polarity 极 fist 家). It is considered to be a "soft" (and thus "yin-like") style: the movements are practiced slowly and executed without relying on strength or external force, an emphasis is placed on always being relaxed, and one is always lightly touching the opponent.

One should yield at the opponent's slightest pressure and adhere to him at his slightest retreat. To conquer the strong by yielding is termed "withdrawal" 退. To improve your position to the detriment of the opponent is called "adherence" 黏. One should respond quickly to fast action, slowly to slow action...

When your opponent brings pressure on your left side, the left side should be empty. The same holds for the right side. When he pushes upward or downward against you, let him feel as if there were no end to the emptiness he encounters...

The entire body is so sensitive that not a feather will be able to be added and so pliable that a fly cannot alight on it without setting it in motion. (Wang Tsung-Yueh, Huang version, 1974, p. 400)

Relaxed alertness whilst maintaining physical contact allows one to feel the balance of the opponent and be sensitive to the first indications of an impending attack. The other's force is not met and

\(^{13}\) Wu uses "Way" here as a translation of "Tao."
stopped head-on with a hard block, as this would require an exertion of strength; rather, the attack is redirected with a minimum of effort by applying the method of the circle:

The technique of the free circle is most difficult to master; 
Up, down, following and joining, 
it is infinitely marvelous.

If we can entice the opponent into our circle, 
Then the technique of four ounces repelling a thousand pounds will succeed.

When the maximum power of the hands and feet arrives together seeking a straight line to the side, 
Then our advantage from the free circle will not be wasted.

If we desire to know the method of the circle, 
We must first find the correct point to issue from and the correct target, 
and then we will accomplish our task.  
(Yang Pan-hou, Wile version, 1983, p. 77)

The circle is everywhere in T'ai Chi—when in trouble, you circle your way out of it by turning the waist, the shoulders, the elbows, and the wrists, and by maintaining a dynamic balance between yin and yang.

Few have truly cultivated the *yin* and *yang* of T'ai-chi; 
Swallowing and spitting, opening and closing give expression to hard and soft.

Controlling the cardinal directions and corners, drawing in and issuing forth, let the opponent do what he will; All is but the transformations of action and stillness, so what need is there to worry?
Offence and defense must be intimately coordinated;
Evading and attacking must be sought in every action.

What is the meaning of light and heavy, full and empty?
As soon as we discover lightness within our opponent's heaviness, we must attack without hesitation.
(Yang Pan-hou, Wile version, 1983, p. 78)

Yin-like adaptiveness is necessary to maintain the relaxed flowing Connection through which the opponent's balance and movements can be known and directed. But within this context there must be a balance between adaptive and decisive actions. To only follow would be as uni-directional as only leading. Attacking (yang) is an important part of T'ai Chi, but the strikes are all done at the right time, and contact is always maintained (yin). The strike, if successful, is a separation—the opponent is pushed back, or pulled down, or propelled to the side—but even here one can continue to "stick" in order to make use of the opponent's imbalance.

Thus T'ai Chi Ch'uan serves as a physical isomorph of Taoism in general. The Connection between all things is adaptive in its flowing, and within this context there is the recursive balance of yin and yang. Yin adaptively maintains connections while yang decisively establishes boundaries. Thus yin and the Tao—itself an adaptive connecting pattern—are themselves connected. Herein lies the balance and paradox of the Tao. Yes, yin and yang cannot be separated, and yes, because the Tao and yin are both connections, the cybernetic complementarity "Connection / (connection/ separation)" means that in a way Taoism is a yin thought-system.
Health / (health/illness): The wholeness of Health, like the wholeness of the Tao, Acceptance, Adaptation, and Cooperation, is a process of Connection which interweaves connection and separation. Health is an expression of the dynamic balance of any system (be it body, family, society, or environment)—a process of change which joins the diverse components of the whole in intricate patterns of interaction. Chinese medicine recognizes that like the Tao, such harmony is impossible to dissect:

Health for the Chinese ... is a theoretical state in which none of the bodily signs are abnormal. The image is balanced. The important Taoist notion—that the Tao that can be talked about and described is not the Tao—pervades medicine. Harmony must be simply and effortlessly stated. It is enough to say, for instance, "The Lungs in harmony administer respiration." No elaboration is needed. (Kaptchuk, 1983, pp. 50-51)

Similarly, Boscolo and Cecchin (1985) say that a healthy family cannot be described. The dynamic and complex nature of the patterns, if discussed, will only be mangled in the telling. Thus healthy people cannot be pigeon-holed. They, according to Maslow (1970), escape the dichotomies of kindness-ruthlessness, concreteness-abstractiveness, acceptance-rebellion, self-society, adjustment-maladjustment, detachment from others-identification with others, serious-humorous, Dionysian-Apollonian, introverted-extroverted, intense-casual, serious-frivolous, conventional-unconventional, mystic-realistic, active-passive, masculine-feminine, lust-love, and Eros-Agape. (p. 179. Cited in Keeney, 1983, p. 126)

When there is Health there are no dichotomies—only the recursive balance of complementaries. Illness, then, can be viewed as an imbalance within a larger overall pattern. Chinese medical theory is a good example of this. Based on an epistemology of relationship (between yin and yang), it
considers illness a "disharmony" within the context of wholeness and balance:

The Chinese physician . . . directs his or her attention to the complete physiological and psychological individual. All relevant information, including the symptom as well as the patient's other general characteristics, is gathered and woven together until it forms what Chinese medicine calls a "pattern of disharmony." This pattern of disharmony describes a situation of "imbalance" in a patient's body. Oriental diagnostic technique does not turn up a specific disease entity or a precise cause, but renders an almost poetic, yet workable, description of a whole person. (Kaptchuk, 1983, p. 4)

The Chinese physician may employ either acupuncture or herbology as a means of restoring harmony. Both techniques have therapeutic access to the body through the Meridians—an invisible network that links together all the Fundamental Substances and Organs and is essential for the maintenance of balance (Kaptchuk, pp. 77-83).

Meridian theory assumes that disorder within a Meridian generates derangement in the pathway and creates disharmony along that Meridian, or that such derangement is a result of a disharmony of the Meridian's connecting Organ. A disorder in the Stomach Meridian, for example, may cause upper toothache because the Meridian passes through the upper gums . . .

The goal of all treatment methods in Chinese medicine is to rebalance those aspects of the body's Yin and Yang whose harmonious proportion and movement have become disordered . . .

The basic idea behind acupuncture . . . is that the insertion of very fine needles into points along the Meridians can rebalance bodily disharmonies . . . The needles can reduce what is excessive, increase what is deficient, warm what is cold, cool what is hot, circulate what is stagnant, move what is congealed, stabilize what is reckless, raise what is falling, and lower what is rising. (Kaptchuk, pp. 78-80)

That health is a function of the flowing connectedness of a system is also recognized by Maslow. He concludes that the main path to health and self-fulfillment
is via basic need gratification rather than via frustration. This contrasts with the suppressive regime, the mistrust, the control, the policing that is necessarily implied by the belief in basic, instinctive evil in the human depths. Asceticism, self-denial, deliberate rejection of the demands of the organism, at least in the West, tends to produce a diminished, stunted or crippled organism, and even in the East, bring self-actualization to only a very few, exceptionally strong individuals.

But we know also that the complete absence of frustration, pain or danger is dangerous. To be strong, a person must acquire frustration-tolerance. . . . It is via the frustrating unyieldingness of physical reality and of animals and of other people that we learn about their nature, and thereby learn to differentiate wishes from facts . . . and are thereby enabled to live in the world and adapt to it as necessary. (pp. 199-201)

In other words, health is dependent upon an epistemology and the experience of "Connection / (connection/separation)." Boundaries—in the form of frustration, illness, limitations, stumbling blocks, and so on—are part of the necessary imbalance within Balance. For example, anxiety can be viewed as an important and useful communication about our relationship to ourselves and our surroundings. Denying anxiety can introduce all sorts of difficulties, but the problem then lies in the separation, not in the anxiety per se. By acknowledging and listening to it, anxiety can be folded into our experience in a useful and creative way. Rollo May (1977) writes that

the freedom of the healthy individual inheres in his capacity to avail himself of new possibilities in the meeting and overcoming of potential threats to his existence. By moving through anxiety-creating experiences, one seeks and partially achieves realization of himself. . . . This capacity to tolerate anxiety is found least of all in the brain-injured patient, more in the child, and most of all in the creative adult. (p. 354)

Restoring health to an imbalanced system is a matter of making it whole, of freeing up the flowing interaction of
complementarity. Acupuncturists accomplish this by inserting needles into points along the *connecting* meridian or channel which is "deranged." This ability to see problems in relation to the whole of the recursive network and to act in a way which doesn’t simply exacerbate the situation is very rare and very difficult.

If, as we must believe, the total mind is an integrated network . . . and if the content of consciousness is only a sampling of different parts and localities in this network; then, inevitably, the conscious view of the network as a whole is a monstrous denial of the *integration* of that whole. From the cutting of consciousness, what appears above the surface is *arcs of circuits* instead of either the complete circuits or the larger complete circuits of circuits. . . .

Mere purposive rationality unaided by such phenomena as art, religion, dream, and the like, is necessarily pathogenic and destructive of life; and . . . its virulence springs specifically from the circumstance that life depends upon interlocking *circuits* of contingency, while consciousness can see only such short arcs of such circuits as human purpose may direct. (Bateson, 1972, pp. 145-146)

Viewing problems in terms of an epistemology of "Balance / (balance/imbalance)" can help direct our attention to the connecting meridians of relationship rather than isolable disease entities. Direct linear action can be an important and helpful technique for the relief of symptoms, but the only way of ensuring the integrity and circular process of *systems* is to recognize our complementary relation to the whole and act with the wisdom of *wu wei*.

The world is a sacred vessel, which must not be tampered with or grabbed after. To tamper with it is to spoil it, and to grasp it is to lose it.
In fact, for all things there is a time for going ahead, and a time for following behind; a time for slow-breathing and a time for fast-breathing; a time to grow in strength and a time to decay; a time to be up and a time to be down.

Therefore, the Sage avoids all extremes, excesses and extravagances.

(Lao Tzu, Ch. 29, Wu version, p. 41)

The central concern of this chapter has been to identify the shape of the "knot of complementarity" which lies at the heart of Taoism, and to apply it to an understanding of pattern in life and mind. The various kinds of rope used to tie the knot are themselves woven with the strands of change: the balance of yin and yang, never static, circles through time. There is a time for moving outward (yang) and a time for moving inward (yin), a time for diverging and a time for converging, a time for leading and a time for following, a time to live and a time to die. The balance of the sage—or the family, or any living system—is not a rigid adherence to the bland path of mediocrity, but an adaptive connection to circumstance and Time.
Chapter 4

Cycles of Completion: The Phases of Change

What we call the beginning is often the end
And to make an end is to make a beginning.
The end is where we start from. . . .
Every phrase and every sentence is an end and a beginning,
Every poem an epitaph. And any action
Is a step to the block, to the fire, down the sea's throat
Or to an illegible stone: and that is where we start.

(T.S. Eliot, *Four Quartets*)

There are four words in the *I Ching*—yüan, heng, li, and chen—which together comprise what Shchutskii (1960/1979) calls a "mantic formulae" (p. 143). They occur frequently in different combinations throughout the book, but first appear at the very beginning, in the PRIMARY TEXT of the first hexagram, *Ch'ien* (乾), or "Enflaming Inspiration":

\[
\begin{array}{l}
乾 
\hline
yüan \hline
heng \hline
li \hline
chen
\end{array}
\]

1 See Appendix 1 for an explanation of this and other section headings.
Shchutskii believes that these mantic terms belong to the oldest strata of the book, "remnants of a much earlier system of divination" (p. 143), but that their original meanings have been lost. Because of the ambiguous nature of ancient Chinese, there is no way of determining exactly how the phrase should be punctuated, and thus interpreted. It can be read as a single sentence—"Ch'ien yüan heng li chen."—or it can be understood as a kind of list—as in "Ch'ien: yüan; heng; li; chen."—where the latter four words, each relatively independent, explicate the meaning of the first. Richard Wilhelm (1967, p. 369) chose the first alternative, translating the phrase as:

THE CREATIVE works sublime success,
Furthering through perseverance.

Shchutskii finds it "difficult to agree with such an interpretation since a construction so highly developed in grammatical relations would hardly be possible in such an archaic text" (p. 136). It also produces a sentence so abstract that it is virtually meaningless. The alternative—i.e., treating the terms as different dimensions or aspects of Ch'ien—is more in keeping with the paratactic structure of ancient Chinese, and it correctly confers equal importance on all four words.² By looking closely at the etymologies of Ch'ien and the other four characters, it is possible to recover something of their original meanings, and to suggest an interpretation of the phrase as a whole.

Wilhelm's translation of Ch'ien as "The Creative," is accurate, but incomplete. The archaic form of the character ⼉

² In contrast, the hypotactic structure of English is hierarchical. In the sentence of Wilhelm's, "sublime" modifies "success," and is thus subordinate to it.
depicts the sun ☇ (heat, light, creativity) between the roots ⤵ and branches ⤶ of a plant (the beginning and end of growth). The symbol on the right ☇ is an abbreviated form of ch'i 氣, the invisible breath of life which pervades the world. To convey the awesome power and light of the sun Dr. Yû and I used the word "Enflaming"³; to this we added "Inspiration," a word which evokes the idea of creativity and whose Latin etymology (in + spirare—to breathe in) matches the breath-like nature of ch'i. "Enflaming Inspiration" is the elemental creativity of the complete life process, from beginning (roots) to end (branches).

The top stroke — of yilan 元 means "one" or "first," and thus suggests the notion of inception or beginning. The lower portion of the character 元 probably depicts the foundation from which the origin begins. We translated it as "originates."

The second word of the four, heng 恆 , speaks of unobstructed process and development: a smooth flow alach issues from an opening ▷. We used "flows freely" as an English equivalent.

Li 林 is a picture of the fruit 林 of mature crops 林 being harvested with a cutting implement 割. It thus refers to the ripeness of a situation, a time when one's effort "bears fruit."

Chen 辰 , the last of the four mantic terms, is very curious: it literally means to divine 命 with a tortoise shell 亐—a practice dating to the Shang dynasty (1766-1122 B.C.). Having been asked a question of import, a diviner would heat a tortoise shell over a fire until it cracked, and then interpret the resultant random scattering of lines. However, within the context of "Enflaming

³ An archaic form of the word "inflame."
Inspiration" and the other three characters, it is clear that *chen* is not being used in its literal sense (i.e. as "to divine"):

Enflaming Inspiration  
originates  
flows freely  
bears fruit  
*chen*

The words "originates/flows freely/bears fruit" appear to be descriptions of the phases of a life process, from the beginning, through development, and on to maturation. What then is the fourth phase of "Enflaming Inspiration"? And how does divination fit into this cycle? Part of the answer can be found, of all places, in Systems Theory.

Ross Ashby long ago pointed out that no system (neither computer nor organism) can produce anything *new* unless the system contains some source of the random. In the computer, this will be a random-number generator which will ensure that the "seeking," trial-and-error moves of the machine will ultimately cover all the possibilities of the set to be explored.

In other words, all innovative, *creative* systems are . . . *divergent*. (Bateson, 1979a, pp. 193-194)

The essential element in divination is its *unpredictability*; its incorporation of the *random* in the formulation of answers. The diviner has no control over the way in which the tortoise shell will crack. And it is to this notion of *divergence* that *chen*, in this context, most probably refers. In order for the creative cycle of Enflaming Inspiration to return to an *original* beginning, there must be a period of dis-integration, a time following maturation where seeds scatter and organic matter breaks down and returns to the soil. As Bateson (1979a) puts it: "the ongoing processes of change *feed on the random*" (p. 52). *Chen* is the unravelling of pattern, the
separation of death within the connecting context of ongoing Life:
the close-knit connections of climax must *diverge*.

Enflaming Inspiration
- originates
- flows freely
- bears fruit
- diversifies

Understood and translated in these terms, the four phase cycle of change is completed and, through dissolution, started anew:
"completion holds change" (Hex. 16, FINAL 6, Yü and Flemons, 1983, p. 76) and "the end holds the beginning" (Hex. 18, COMMENTARY, Yü and Flemons, p. 81). Bateson describes it this way:

For the creation of new order, the workings of the random, the plethora of uncommitted alternatives (entropy) is necessary. It is out of the random that organisms collect new mutations, and it is there that stochastic learning gathers its solutions. Evolution leads to climax: ecological saturation of all the possibilities of differentiation. Learning leads to the overpacked mind. By return to the unlearned and mass-produced egg, the ongoing species again and again clears its memory banks to be ready for the new. (1979a, p. 53)

The simultaneity of death and new life in *chen* is richly described by Doris Lessing in her story "Flavours of Exile" (1957), where a young teenage girl closely attends to the development, ripening, and finally rotting of a single pomegranate on the stem of a small tree.

After the MacGregors had gone, I went through the bushes to the pomegranate tree. It was about my height, a tough, obstinate-looking thing; and there was a round yellow ball the size of a walnut hanging from a twig. . . .

I went to the tree every day and lay under it, watching the single yellow fruit ripening on its twig. There would come a moment when it must burst and scatter crimson seeds; I must be there when it did; it seemed as if my whole life was concentrated, and ripening with that single fruit. . . .
I imagined it in a thousand ways, as the fruit continued to grow. Now, it was a clear bronze yellow with faint rust-coloured streaks. The rind was thin, so soft that the swelling seeds within were shaping it.

Soon, soon, it would be ripe. Very swiftly, the skin lost its smooth thinness. It took on a tough pored look, like the skin of an old weatherbeaten countryman. It was a ruddy scarlet now, and hot to the touch. A small crack appeared, which in a day had widened so that the packed red seeds within were visible, almost bursting out. I did not dare leave the tree.

For three days nothing happened. The crack remained the same. Ants swarmed up the trunk, along the branches and into the fruit. The scar oozed red juice in which black ants swam and struggled. Any moment it might happen.

There was not a sound. The sun came pouring down, hot and yellow, drawing up the smell of the grasses. There was, too, a faint sour smell from the fermenting juice of the pomegranate.

'It's bad,' said William, in that uncomfortable, angry voice.

He was looking about him in the grass. He reached down and picked up a stick.

'No,' I cried out, as he hit at the tree. The pomegranate flew into the air and exploded in a scatter of crimson seeds, fermenting juice and black ants. (115-120)

In the I Ching, this four-phase cycle of completion unfolds in counterpoint to the six lines of a hexagram. In most cases, situations peak at the fifth stage, and show signs of decay in the sixth. For example, the marriage described in the fifth line of Hexagram 11, T'ai or "Intermingling," is an image of auspicious connection, symbolic of the entwining of heaven and earth. As such, it is the culmination of the pattern which has been unfolding throughout the hexagram:

---

See the next chapter for the numerological significance of this relationship.
King I gives his sister away in marriage with a blessing, as auspicious—

(禹和弗莱蒙斯, 1983, p. 61)

But by the last stage, the order of connection has begun to break apart, and chaos ensues:

The city wall would have been built from the material excavated to create the moat. It crumbles back to its origin, and thus completes the circular process of change. "Intermingling" cannot continue forever, but must, upon reaching the limit of its development, begin to unravel.

Bateson (1979a) says that "the hint of death is present in every biological circuit whatsoever" (p. 141). Indeed, it appears to be actually programmed into our genes.

When one cell gives way to another, when it reproduces the next generation, somewhere within it there is the history of what has happened before. . . . An interesting experiment [was conducted by] some people at Northern California Medical Center Children's Hospital, mainly Hayflick and Muirhead, who did the following thing: They took some embryonic human

---

5 This means 6 line (i.e., yin) in the 5th place. See Appendix 1.
6 This was an actual historical incident. King I ruled in the Shang dynasty (1766-1122 B.C.).
lung tissue and took it out of the body, used an enzyme to turn it into millions of cells, separated them, put them in a nutrient solution . . . and incubated these cells in glassware at the temperature of the body . . . .

What happens is they start to double, and they double regularly, they reproduce the next generation of cells and they do that over and over again until they get to something like fifty doublings and then they stop . . . . There would seem to be an end. The last ones know it is time and they no longer reproduce.

Attempts have been made to fool the cells—cells have been allowed, for example, to double twenty times and then are frozen in liquid nitrogen for, say, three years. Then you unfreeze them, start the process again, they double thirty times and then that's it . . . .

If this cell reproduction is a property that is related to aging, then although we don't know how it actually occurs in the body, if we assume it is something like in glassware, then of course the whole situation is extremely interesting because it means there is basically a clock in the cell that tells you when it is time to actually stop and cell death occurs. . . .

The only cells that . . . don't seem to have a finite lifetime . . . in reproduction seem to be cancer cells. Cancer cells double and double and double and there seems to be no end to that. And so these people in California had the idea that if they treated normal cells with the cancer causing monkey virus SE 40, they might transform normal cells into immortal cells and we might then all live happily ever after. Well they did that and they did produce cells that might have been immortal, but when you inject them into laboratory animals you create tumors 100% of the time. (McKee, June 5, 1985)

Cancer cells, multiplying without limit, don't know when to stop.

With death removed from their life-cycle, they become short-circuited killers, destroying the recursive balance of their environment, whether spleen, stomach, or lung.

Growth without death produces Death on a larger scale.

Cancer cells destroy organs and organisms, just as an unchecked, always expanding economy destroys the ecology of which it is a part. Bateson (1979c) considers the Gross National Product "a precise measure of addiction." And David Suzuki makes a similar point
when he says that the industrial world's commitment to steady expansion is depleting the planet's resources, and threatening our survival.

I believe, and I know most of you will think I'm nuts, in the coming years we must aim not for zero growth but negative growth if we are to leave anything for our children. . . .

The notion of the necessity and sanctity of growth is one of the sacred myths that must be destroyed to avoid catastrophic upheavels in the near future. . . .

Continuous growth is a[n] aberration. (Cited in Wong, 1986)

Suzuki's prescription of *negative growth* is essentially an assertion that death is a necessary part of the encompassing life of an ecologically attuned economy, that growth is *not* synonymous with health, but only part of a larger, recursive cycle of completion.

To hasten the growth of life is ominous
To control the breath by the will is to overstrain it.
To be overgrown is to decay.
All this is against the Tao,
And whatever is against the Tao soon ceases to be
(Lao Tzu, Ch. 55, Wu version, p. 79)

The LINE IMAGES of Hexagram 1, "Enflaming Inspiration,"
chronical the ascendancy of a dragon from beneath the water, onto land, and finally by line five, into the heavens:

INITIAL 9
submerged dragon
do not engage

9/2
sees the dragon on the field
fruitful to see the profound person

9/3
the exemplar, in day's light, ignites enflaming inspiration
at night wary, as though in danger
no dissonance
if leaping the chasm
no dissonance

soaring dragon in heaven
fruitful to see the profound person
(Yü and Flemons, 1983, pp. 18-19)

But just as

the noon sun begins setting—
full moon begins waning
(Hex. 55, COMMENTARY, Yü and Flemons, p. 194)

so too a dragon at its peak has already begun to decline. If it ignores this and strives ever further, if it goes too far, it becomes "ex-orbitant":

ex-orbitant dragon sorrowful

ex-orbitant dragon sorrowful—brimming can't continue
(Yü and Flemons, 1983, p. 19)

The circularity of change cannot be defied: brimming cannot continue. This is true not only of dragons, but for all systemic processes—unchecked lineal growth is toxic to the recursive health of living systems. All relationships and events, whether biological or

7 The word "if" qualifies the action—the dragon (who is inferred) chooses to fly, beginning at the edge of a chasm. This line describes the leap from earth to heaven, the discontinuous jump so essential in the creative process. Hsieh Ling-yün, of the fifth century, uses this image to describe enlightenment: "Enlightenment, he says, is like leaping across a chasm or a gulf. Either one succeeds in the leap and attains sudden enlightenment or remains as one was" (Chang, 1963, p. 43).

8 The Canadian artist Harold Towne (1986) has remarked that Picasso's genius lay in his timing—he always knew when to stop
social, are part of a recursive ecology of Connection, and all must eventually die.

Abandoning old ways and breaking old patterns is like dying, at least dying to old ways of life for an unknown new life of meaning and relationships. But living without change is not living at all, not growing at all. Dying is a precondition for living. . . . To limit the process is to exist as compressed beings. (Imara, 1975, p. 148)

The history of a life can be characterized as an encompassing cycle of completion, from birth through death, within which are entwined many smaller, but isomorphic cycles continually beginning (yüan), developing (heng), maturing (li'), and dispersing (chen), each with its own rate of unfoldment. Consider, for instance, a sixty-four year old professional woman who is nearing the end of her career, and preparing for retirement. She lives alone, a widow of five years, but maintains a number of friendships and is romantically involved with a man, sixty-three. When he retires they plan to move to Victoria where they both have children and grandchildren. She has been working on a book, her third, for some time, and hopes to finish it within eighteen months; an outline for the fourth has her publisher interested. She had to quit golfing this year because of a bad knee, but still manages to get to the community pool two or three times a week for a swim. All her various involvements and activities are at different phases of development, though as she continues to age, more and more of them will come to an end. This woman has experienced much loss in her life, but she continues to live, continues to originate new projects and relationships, because she fully mourns her separations, dispersions, and failings. Mourning
is the means by which we negotiate and finally accept the often painful *chen* phase of our cycles. It is a way of completion.

It was noted in the previous chapter that true separation, like the act of forgetting, must be a letting go, that it can't be forced. Only when there is a confluence can divergence become a healthy separation, rather than a rigid, life-denying one. The Jewish guidelines for mourning a death are exemplary in this regard.

Judaism opposes repression of the emotions and enjoins the mourner to express his grief and sorrow openly. In the funeral itself there are several signals for the full outpouring of grief. The eulogy is intended to make the mourner aware of what he has lost. Traditionally its function was to awaken tears...

The raw gaping hole in the earth, open to receive the coffin, symbolizes the raw emptiness of the mourner at this moment of final separation. Burying the dead by actually doing some of the shoveling themselves helps the mourners and the mourning community to ease the pain of parting by performing one last act of love and concern. (Gordon, 1975, p. 49)

Emotions are qualities of connection. Through the emotional expression of grief and the physical involvement with the coffin at the grave site, the mourner is able to join with the deceased in a way which facilitates acceptance.

Being part of the dying process, the death, and the burial, including seeing and perhaps interacting with the body, is an important part of coming to grips with death—that of the person who has died and your own. (Kübler-Ross, 1975, p. 5)

This is the first step in what, for the Jewish tradition, is a twelve month process:

Judaism recognizes that there are levels and stages of grief and so it organizes the year of mourning into three days of deep grief, seven days of mourning, thirty days of gradual readjustment, and eleven months of remembrance and healing. Thus the mourner is drawn forth from his temporary isolation to increasingly larger personal and communal responsibilities and involvements until by the end of the year
he has been reintegrated into the community and his loss has been accepted, though not forgotten. (Gordon, 1975, p. 51)

In the course of a year-long mourning ritual, the grieving person passes through all four seasons, and thus reaches a symbolic conclusion. In the *I Ching*, a complete circle of time is sometimes represented by the ten day cycle of "heaven's stems"9 (see Hex. 18, PRIMARY TEXT; Hex. 49, PRIMARY TEXT and 6/2; Hex. 57, 9/5) or by a period of seven days:

PRIMARY TEXT
Turning Back
flows freely outward and inward
.
.......
turns and returns back to the Tao
in seven days turns back
(Hex. 24, Yu and Flemons, 1983, p. 99)

6/2
the woman loses her veil
don't chase after found in seven days

COMMENT
found in seven days—
with the centered tao
(Hex. 63, Yu and Flemons, p. 220)

The actual *length* of time is not as important as the fact of completion. For a sage like Chuang Tzu, the cycle of acceptance may be very short. Attuned to the Tao, acting with the spontaneity of *wu wei*, he spins and renews himself with the recursive balance of connection and separation, convergence and divergence, life and death.

Chuang Tzu's wife died. When Hui Tzu went to convey his condolences, he found Chuang Tzu sitting with his legs sprawled out, pounding on a tub and singing. "You lived with her, she brought up your children and grew old," said Hui Tzu.

---

"It should be enough simply not to weep at her death. But pounding on a tub and singing—this is going too far, isn't it?"

Chuang Tzu said, "You're wrong. When she first died, do you think I didn't grieve like anyone else? But I looked back to her beginning and the time before she was born. Not only the time before she was born, but the time before she had a body. Not only the time before she had a body, but the time before she had a spirit. In the midst of the jumble of wonder and mystery a change took place and she had a spirit. Another change and she had a body. Another change and she was born. Now there's been another change and she's dead. It's just like the progression of the four seasons, spring, summer, fall, winter.

"Now she's going to lie down peacefully in a vast room. If I were to follow after her bawling and sobbing, it would show that I don't understand anything about fate. So I stopped."

(Chuang Tzu, Section 18, Watson version, 1964, p. 113)

Change is always present in the unfolding of events, but the change of change—whether it be the significant transformations of character or organization called "therapeutic change," or simply the continual renewal necessary for a healthy life—requires the dispersion of death: "the divergent is real and is a potential source of either disorder or innovation" (Bateson, 1979a, p. 194). In the following Brothers Grimm fairy tale, "Mother Holle," the divergence of completion brings innovation, or regeneration, while the divergence of incompletion brings disorder, or degeneration.

There was once a widow who had two daughters—one of whom was pretty and industrious, whilst the other was ugly and idle. But she was much fonder of the ugly and idle one, because she was her own daughter; and the other, who was a step-daughter, was obliged to do all the work, and be the Cinderella of the house. Every day the poor girl had to sit by a well, in the highway, and spin and spin till her fingers bled.

Now it happened that one day the shuttle was marked with her blood, so she dipped it in the well, to wash the mark off; but it dropped out of her hand and fell to the bottom. She began to weep and ran to her step-mother and told her of the mishap. But she scolded her sharply, and was so merciless as to say: "Since you have let the shuttle fall in, you must fetch it out again."
So the girl went back to the well, and did not know what to do; and in the sorrow of her heart she jumped into the well to get the shuttle. She lost her senses; and when she awoke and came to herself again, she was in a lovely meadow where the sun was shining and many thousands of flowers were growing. Across this meadow she went, and at last came to a baker's oven full of bread, and the bread cried out: "Oh, take me out! take me out! or I shall burn; I have been baked a long time!" So she went up to it, and took out all the loaves one after another with the bread-shovel. After that she went on till she came to a tree covered with apples, which called out to her: "Oh, shake me! shake me! we apples are all ripe!" So she shook the tree till the apples fell like rain, and went on shaking till they were all down, and when she had gathered them into a heap, she went on her way.

At last she came to a little house, out of which an old woman peeped; but she had such large teeth that the girl was frightened, and was about to run away. But the old woman called out to her: "What are you afraid of, dear child? Stay with me; if you will do all the work in the house properly, you shall be the better for it. Only you must take care to make my bed well, and to shake it thoroughly till the feathers fly—for then there is snow on the earth. I am Mother Holle."

As the old woman spoke so kindly to her, the girl took courage and agreed to enter her service. She attended to everything to the satisfaction of her mistress, and always shook her bed so vigorously that the feathers flew about like snow-flakes. So she had a pleasant life with her; never an angry word; and to eat she had boiled or roast meat every day.

She stayed some time with Mother Holle, before she became sad. At first she did not know what was the matter with her, but found at length that it was home-sickness: although she was many thousand times better off here than at home, still she had a longing to be there. At last she said to the old woman: "I have a longing for home; and however well off I am down here, I cannot stay any longer; I must go up again to my own people." Mother Holle said: "I am pleased that you long for your home again, and as you have served me so truly, I myself will take you up again." Thereupon she took her by the hand, and led her to a large door. The door was opened, and just as the maiden was standing beneath the doorway, a heavy shower of golden rain fell, and all the gold clung to her, so that she was completely covered over with it.

"You shall have that because you have been so industrious," said Mother Holle; and at the same time she gave her back the shuttle which she had let fall into the well. Thereupon the door closed, and the maiden found herself up above upon the earth, not far from her mother's house.
And as she went into the yard the cock was sitting on the well, and cried:

"Cock-a-doodle-doo!
Your golden girl's come back to you!"

So she went in to her mother, and as she arrived thus covered with gold, she was well received, both by her and her sister. (J. & W. Grimm, 1857/1972, pp. 133-135)

This story, with its images of death, is a description of the fourth, chen phase in a cycle of development. Grieving, the girl jumps into the well and losing her senses (a kind of "dis-ordering" of experience) dies a metaphoric death. She wakes up in a world which is poised at the apex of a developmental cycle. There is baked bread ready to be removed from the oven, and ripe apples ready to be shaken off their tree. The girl brings both these situations to a satisfactory resolution by acting in accord with the time. She completes them.

Later she enters the service of Mother Holle, known in North German folklore as a goddess of both fertility and death (Jobes, 1961, p. 780). This deity's dual nature captures the sense of chen very well. As in the expression "going to seed" (cf. the story of the pomegranate above), death and new life are inextricably linked. The decay of the old and the dispersion of the new (seeds) are part of the same process of completion. Note that it is the act of shaking the bed (introducing randomness to the arrangement of the feathers) which brings snow, thus completing the four seasons with the death blanket of winter. Mother Holle admonishes the girl to shake the bed thoroughly—if she were to fall short, the cycling of the seasons would be disrupted, and the cycle of completion short-circuited. Without finality there can be no renewal.
As with winter, the girl's time with Mother Holle must come to an end. By following through on all her tasks, the girl brings her journey to the underworld to a natural and timely conclusion. She longs for home, and Mother Holle not only accepts her decision with equanimity, but rewards her for her efforts. Perhaps her own experience as the goddess of death has given her the wisdom of sages, the ability to let go:

*only sages know when to step forward and backward
how to accept life and death
do not slip from attunement*

(Hex. 1, Yü and Flemons, 1983, p. 26)

Covered in gold, her winter complete, the girl returns to a new beginning (*yüan*) and has her arrival announced by the cock as if she were the morning sun breaking above the horizon.

But this process is hard work; merely taking the trip isn't enough. When the girl's lazy sister plunges into the well after her own shower of gold, she is confronted with the same circumstances; but she responds to them indifferently and her "reward" from Mother Holle is far from golden:

The girl told all that had happened to her; and as soon as the mother heard how she had come by so much wealth, she was very anxious to obtain the same good luck for the ugly and lazy daughter. She had to seat herself by the well and spin; and in order that her shuttle might be stained with blood, she stuck her hand into a thorn bush and pricked her finger. Then she threw her shuttle into the well, and jumped in after it.

She came, like the other, to the beautiful meadow and walked along the very same path. When she got to the oven the bread again cried: "Oh, take me out! or I shall burn; I have been baked a long time!" But the lazy thing answered: "As if I had any wish to make myself dirty!" and on she went. Soon she came to the apple-tree, which cried: "Oh shake me! shake
me! We apples are all ripe!" But she answered: "I like that! One of you might fall on my head," and so went on. When she came to Mother Holle's house she was not afraid, for she had already heard of her big teeth, and she hired herself to her immediately.

The first day she forced herself to work diligently, and obeyed Mother Holle when she told her to do anything, for she was thinking of all the gold that she would give her. But on the second day she began to be lazy, and on the third day still more so, and then she would not get up in the morning at all. Neither did she make Mother Holle's bed as she ought, and did not shake it so as to make the feathers fly up. Mother Holle was soon tired of this, and gave her notice to leave. The lazy girl was willing enough to go, and thought that now the golden rain would come. Mother Holle led her also to the great door; but while she was standing beneath it, instead of the gold a big kettleful of pitch was emptied over her. "That is the reward for your service," said Mother Holle, and shut the door.

So the lazy girl went home; but she was quite covered with pitch, and the cock on the well, as soon as he saw her, cried out:

"Cock-a-doodle-doo! Your dirty girl's come back to you!"

But the pitch clung fast to her, and could not be got off as long as she lived. (J. & W. Grimm, 1857/1972, pp. 135-136)

Whereas the first sister's experience was a regeneration, this sister's journey is a degeneration. Having failed to help the bread and apples, having neglected the thorough shaking of the feather bed, she is doused with pitch and blackened for life—forever marked with the color of burnt bread, the taint of death.

People who succeed in completing their cycles must suffer and mourn the pain of chaos and separation, but by "going to seed" they open the way for the new. Those who fail to bring completion to the cycles of their lives seek perhaps to avoid the terror of dissolution, but in so doing they condemn themselves to a kind of perpetual purgatory.

In some way one must pay with life and consent daily to die, to give oneself up to the risks and dangers of the world, allow
oneself to be engulfed and used up. Otherwise one ends up as though dead in trying to avoid life and death. (Becker, 1973, p. 210)

Without completion there can be no full death, hence no full life and no wholeness.

In the *I Ching*, this state of decay is symbolized by Hexagram 12, *Pi* 离, or "Alienation." Like any organic pattern, it too has a life cycle, and by the last line the rigidity of the separation has begun to crumble:

**Final 9**
- crumbling
- alienation
- initially—alienation finally—joy

**Comment**
- alienation follows through—
  - it crumbles
  - *how could it keep growing?*

(Yu and Flemons, 1983, p. 64)

The paratactic relation between "crumbling" and "alienation" in this passage can be understood in at least two ways: that crumbling is a type of alienation, and that alienation itself crumbles. The completion of a cycle of separation entails the divergence or separation of the pattern. Once alienation has run its course, it too dies a death: after all, "how could it keep growing?" This separation of separation is the beginning of connection.

> Only when we are sick of our sickness
> Shall we cease to be sick.
> The Sage is not sick, being sick of sickness
> This is the secret of health.
> (Lao Tzu, Ch. 71, Wu version, p. 103)

Herein lies a clue for how the change of change can be introduced into a system—either a person, family, or organization—which is caught in the purgatory of alienation. Minuchin and
Fishman (1981) see a dysfunctional "family as an organism: a complex system that is underfunctioning. The therapist undermines the existing homeostasis, creating crises that jar the system toward the development of a better functioning organization" (p. 67). But why does crisis lead to a more functional organization? Understood in terms of circular change, the introduction of crisis will be helpful when it induces the family to "go to seed," to pass through the chaos of *chen* and begin the renewal of *yuan*.

According to Haley (1980), the time of greatest change in any organization occurs when someone is entering or leaving it (p. 29), that is, at the time when *chen* and *yuan* entwine. Consider the normal life-cycle of a family. Two people meet, marry, and within a few years have children. With the marriage, and as each new child is born, the people must change to accommodate the new relationships which are created (*yuan*). As the children grow the organization of the family develops (*heng*) and matures (*li*). Eventually the offspring begin to leave home (*chen*), and the family begins to disperse. But the separation is not forced, and the connections, though relaxed and perhaps infrequent, are still present.

In the normal course of family living, young people graduate from school and begin to work and support themselves while still living at home. Sometimes they physically move out of the home when they go to work. When they become self-supporting, they are in a position to marry and establish homes for themselves. Usually parents are involved in the approval of a mate and in helping their children set up their own homes. As the young people have children, the parents become grandparents and continue to be involved as the family changes its organization over the years. In many families, the children's leaving home appears to cause only a mild disruption. Parents can even find it a relief to have the children off their hands and to be free to do the things they would like to do together. (Haley, p. 30)
If the children are to succeed in becoming self-supporting and in establishing their own intimate relationships, it is necessary for the family as a whole to successfully diverge and regenerate.

When a young person succeeds outside the home, it is not merely a matter of individual success. He is simultaneously disengaging from a family, which can lead to consequences for the whole organization. A young person's success or failure is inextricably part of the reorganization of a family. (Haley, p. 30)

A family which fails to complete itself by making this transition through the *chen* phase of development will start to degenerate as purgatory sets in. The problem is usually manifested in the behavior of the child who can't leave home, and thus can't complete his or her cycles.

When a person in the late teens or early twenties begins to behave in strange and failing ways, it should be assumed that the stage of leaving home is malfunctioning and that the organization is in trouble. (Haley, p. 30)

It is typical of these eccentric young people to fail at the point where success is imminent. A typical time to begin to behave strangely is just before high school graduation. For many people graduation from high school is a symbol of success and a first step toward emancipation from the family. Often the young person will quit high school a few weeks before graduation, commit some strange delinquent act, or exhibit bizarre behavior which cause institutionalization and failure to graduate. (p. 37)

The function of the failure is to let the parents continue to communicate through and about the young person, with the organization remaining the same. Once the young person and parents fail to disengage, the triangular stability can continue for many years, independent of the offsprings's age, though the onset of the problem began at the age of leaving home. (p. 30)

Their relationships are bound together in a divisive way, locked into the connected separation of alienation and unable to converge enough (Δ) to diverge. Thus "the art of the therapy is to bring the
young person back within the family as a way of disengaging him or her for a more independent life" (Haley, 1980, p. 46). As was argued earlier, the only way they can truly separate is if they can truly join. The therapist's task is to help the family negotiate this rite of passage, to help the alienation crumble. When the system goes to seed, the potential for renewal is planted. The divergence of chen is a vital part of the unfolding balance of creative change.

The four phases of change in the I Ching provide a model for the understanding of gradual development and sudden transformation, not as disparate phenomena, but as part of the same cyclic process of completion. Applied to the context of therapy, the model can serve as a useful tool for characterizing the nature of health and dysfunction, and the role of chaos or dissolution in the creation of the change of change.
Chapter 5

The Music of Change

The "intelligent rhythm" of the Tao (see Ch. 2), manifested in the cyclic oscillation between yin and yang, is the essence of living process. Langer (1953) asserts that "all life is rhythmic; under difficult circumstances, its rhythms may become very complex, but when they are really lost life cannot long endure" (p. 126). As Hall (1981) explains:

All living things internalize and respond to dozens of rhythms—night and day, lunar, seasonal, annual, as well as the shorter cycles and rhythms such as breathing rate, heart beat, and the various brain waves—to say nothing of the rhythms of hunger and of sex. (p. 79)

The most important characteristic of these organic rhythms, according to Langer, is not periodicity—i.e., the regular recurrence of events—but the process of cyclic completion, the "preparation of a new event by the ending of a previous one" (p. 126).

Rhythm is the setting-up of new tensions by the resolution of former ones. They need not be of equal duration at all; but the situation that begets the new crisis must be inherent in the denouement of its forerunner.

Breathing is the most perfect exhibit of physiological rhythm: as we release the breath we have taken, we build up a bodily need of oxygen that is the motivation, and therefore the real beginning, of the new breath. . . .

The heartbeat illustrates the same functional continuity: the diastole prepares the systole, and vice versa. The whole self-repair of living bodies rests on the fact that the exhaustion
of vital process always stimulates a corrective action, which in turn exhausts itself in creating conditions that demand new spending. (p. 127)

Rhythm not only completes, it also *connects*. This is perhaps most evident in social interaction, where, for example, people of the same culture talk and move "in sync" with each other.

Sometimes this occurs in barely perceptible ways, when finger, eyelid (blinking), and head movements occur simultaneously and in sync with specific parts of the verbal code (the words, with pitches and stresses) as it unwinds. In other cases, the whole body moves as though the two were under the control of a master choreographer. (Hall, 1981, p. 72)

This synchronization also appears to operate at the level of brain function. Condon and Sander (1974) wired two people in conversation to electroencephalographs to see if there was comparability in brain waves. Two cameras were set up so that one focused on the speakers, the other on the EEG recording pens. When the two people talked, the recording pens moved together as though driven by a single brain. (Cited in Hall, 1981, p. 73)

These results are not so surprising if mind is understood not as a thing inside of our heads but, as was argued in Chapter 2, a process of connection.

Of course rhythmic modulation is fundamental not only to biological and social relationships, but also to music.

The commanding form of a piece of music contains its basic rhythm, which is at once the source of its organic unity and its total feeling. The concept of rhythm as a relation between tensions rather than as a matter of equal divisions of time (i.e. meter) makes it quite comprehensible that harmonic progressions, resolutions of dissonances, directions of "running" passages, and "tendency tones" in melody all serve as rhythmic agents. (Langer, 1953, p. 129)

The rhythmic correspondences between living and musical form have been highlighted by Basil de Selincourt (1920), who compares the growth of a musical composition
to that of a flowering plant, ... where not only the leaves repeat each other, but the leaves repeat the flowers, and the very stems and branches are like un-unfolded leaves. ... To the pattern of the flower there corresponds a further pattern developed in the placing and grouping of flowers along the branches, and the branches themselves divide and stand out in balanced proportions, under the controlling vital impulse. ... Musical expression follows the same law. (p. 288. Cited in Langer, 1953, p. 130)

Music is an expression of pure patterned change (see Bergson, 1947) and as such is an analogue of the configurated flow of living systems. Its "rhythmic continuity is the basis of that organic unity which gives permanence to living bodies—a permanence that ... is really a pattern of changes" (Langer, 1953, p. 127).

This musical sensibility—i.e., that the basis of life is not substance but change—is remarkably similar to the philosophical orientation of the I Ching. A hexagram, like a melody, is not a simultaneous whole, but an organic pattern which completes itself through time, a network of relations which exists by virtue of its movement.

The Changes is a book
From which one may not hold aloof.
Its tao is forever changing—
Alteration, movement without rest,
Flowing through the six empty places;¹
Rising and sinking without fixed law,
Firm and yielding² transform each other.
They cannot be confined within a rule;
It is only change that is at work here.
(from Ch. 8, "Ta Chuan," Part 2. R. Wilhelm, 1967, p. 348)

¹ That is, the six stages of a hexagram.
² Dr. Yü and I translated these two words as "decisive and adaptive" respectively. As usual, they are being used here as synonyms of yang and yin.
And the *I Ching*, like music, resonates with the rhythmic cycles of the world.

Because of its vastness and greatness, [the *I Ching*] corresponds with heaven and earth. Because of its changes and its continuity, it corresponds with the four seasons. Because of the meaning of the light and the dark, it corresponds with sun and moon. Because of the good in the easy and the simple, it corresponds with the supreme power. (from Ch. 6, "Ta Chuan," Part 1. R. Wilhelm, p. 293)

Is the connection between music and the *I Ching* more than coincidence? There are indeed some significant indications that music, which permeated all aspects of ancient Chinese culture, may well have influenced the form and philosophy of the *Book of Change*. In order to unravel the correspondences, it will be necessary to explore the number symbolism which in-forms both the philosophical and theoretical underpinnings of the musical system, and the curious structure of hexagrams. The primary bridge is the relationship between the numbers *three* and *two*.

In the *I Ching* these two numbers entwine in a variety of ways:

1. The complementary pair yin and yang manifest themselves in *three* levels of existence:—heaven, humans, and earth—thereby yielding the eight trigrams (see Figs. 3 and 5).

2. Each hexagram, formed by doubling trigrams (3 X 2), has two lines within each of the three levels (2 lines X 3) of heaven, humans, and earth (see Fig. 10).
The Interpenetration of Three and Two
in the Structure of Hexagrams

3. The LINE IMAGES of hexagrams refer to yang lines as "9" and yin lines as "6" (see Appendix 1). Of course the ratio 9:6 simplifies to 3:2.

4. As was described in the last chapter, the hexagram's six stages are interlaced with the four phases of change: 6:4 ~ 3:2.

5. Heaven (yang) is symbolized by the number three and earth (yin) by two:

In ancient times the holy sages made the Book of Changes thus:
They invented the yarrow-stalk oracle in order to lend aid in a mysterious way to the light of the gods. To heaven they assigned the number three and to earth two; from these they computed the other numbers [my emphasis]. ("Shuo Kua," R. Wilhelm, 1967, p. 262)

The entwining of heaven and earth (and thus three and two) is symbolic of the flow inherent in all complementary relationships. This is clearly seen in the COMMENTARY of Hexagram 11, "Intermingling":

3 This is the Eighth Wing.
Intermingling
the small departs
the great approaches
auspicious flows freely—
that is, heaven and earth entwine
the myriads communicate

above and below entwine—
their heart's intents harmonious
(Yu and Flemons, 1983, p. 60)

As can be seen in the following passage from the *Yüeh Chi* (the
*Book on Music*[^4]), the harmony of heaven and earth also served as
the cosmological justification for the musical system. Change and
music are directly linked, and both are said to result from the
interaction of heaven and earth:

The heaven is high above and the earth is down below and
between the two are placed all beings with their various
characteristics. In correspondence with this (view) the
ceremonies were formed. (The modifying powers of) heaven
and earth move on without stopping. *The interaction (of these
powers) causes creation and change; out of this arises music.*
The spring has the power of creating, summer has the power
of tender growth, this is the initiative love. Autumn gathers
and winter stores and preserves: this is true virtue. Love is
allied to music and virtue to ceremony [my emphasis].
(Kaufman, 1976, p. 36)

The tuning system of the music was based on twelve
fundamental notes known as the *lü*, or pitch-pipes. Made from
bamboo, they didn't so much form a scale as we know it today, but
rather constituted a matrix from which scales could be built. The
ancient formula for deriving the twelve *lü* was simply "subtract and
add one third" (Kaufmann, p. 147). Once the length of the first pipe,

[^4]: It is believed that the *Yüeh Chi* was written (or re-written) in the
first century A.D. by Ma Yung, but there is evidence that it was
composed in an earlier period. It is the twenty-seventh chapter of
the *Li Chi*, the "Record of Rites." Tradition mentions another book of
twenty-three chapters on music which is lost (Kaufmann, 1976, p. 31).
the *huang-chung*, had been established, the rest of the series was created by alternately adding and subtracting one-third of the length of the previous tube. That is, the second *lü* the *lin-chung*, was 2/3 the length of the *huang-chung*, and thus a "perfect fifth" higher in pitch. The third *lü*, the *t'ai ts'ü*, was 2 x 2/3 (i.e., 4/3) the length of the second, and thus a "perfect fourth" lower, and so on. The association between a note and its perfect fifth was, due to their 3:2 relationship, considered symbolic of the harmony between heaven and earth (see Yasser, 1932, p. 33).

The twelve notes produced by this series of ascending fifths and descending fourths (what we in the West call the "cycle of fifths") are roughly equivalent to those of our own chromatic scale. Figure 11 lists the *lüi* and shows their relative pitches when the *huang-chung* is arbitrarily designated as C.

The twelve-pointed star in Figure 12 serves as a pattern of connection between the cyclic arrangement of the twelve pitch-

---

5 The relation between a note and its octave is 1:2—for example the frequency of C-1046.5 is exactly double that of C-523.25. The "perfect fifth" describes the relation between two notes whose ratio is 2:3—for example, the perfect fifth of C-523.25 is G-784.88 (arrived at by multiplying 523.25 x 3/2). The relationship is called a "fifth" because G is the fifth note of a diatonic scale starting at C. Note that G-784.88 is slightly sharper than the G found on the tempered piano (783.99). The piano flattens all the fifths in order to maintain perfect octaves.

6 If each *lü* was 2/3 the length of the previous one, the 12 notes would stretch over six and one-half octaves. Adding 1/3 the length produces the same note as subtracting 1/3, except it is one octave lower. In Western terms: a perfect fifth up from G-784.88 is D-1177.32, while a perfect fourth down from G (four steps down on the diatonic scale) is D-588.66.

7 Given that the length of the *huang-chung* varied by as much fourteen centimeters (Sachs, 1943, pp. 116-117), it is virtually impossible to assign it to a specific Western equivalent pitch.
pipes, and the sequential order of the chromatic scale. By retracing the lines, one moves from C to C#, to D and D#, and so on.

<table>
<thead>
<tr>
<th>Lü</th>
<th>Translation</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huang-chung</td>
<td>Yellow Bell</td>
<td>C</td>
</tr>
<tr>
<td>Lin-chung</td>
<td>Forest Bell</td>
<td>G</td>
</tr>
<tr>
<td>T'ai-ts' u</td>
<td>Great Frame</td>
<td>D</td>
</tr>
<tr>
<td>Nan-lü</td>
<td>Southern Tube</td>
<td>A</td>
</tr>
<tr>
<td>Ku-hsi</td>
<td>Old, Purified</td>
<td>E</td>
</tr>
<tr>
<td>Ying-chung</td>
<td>Answering Bell</td>
<td>B</td>
</tr>
<tr>
<td>Jui-pin</td>
<td>Luxuriant Vegetation</td>
<td>F#</td>
</tr>
<tr>
<td>Ta-lü</td>
<td>Greatest Tube</td>
<td>C#</td>
</tr>
<tr>
<td>I-tse</td>
<td>Equalizing Rule</td>
<td>G#</td>
</tr>
<tr>
<td>Chia-chung</td>
<td>Pressed Bell</td>
<td>D#</td>
</tr>
<tr>
<td>Wu-i</td>
<td>Not Determined</td>
<td>A#</td>
</tr>
<tr>
<td>Chung-lü</td>
<td>Mean Tube</td>
<td>F</td>
</tr>
</tbody>
</table>

**Figure 11**

**The Twelve Lü**  
(Kaufmann, 1976, p. 148)

There is, however, a crucial difference between the *tempered* chromatic scale found on the modern piano, and the twelve *lü* of ancient China. The octave on the piano—e.g., C-261.6256 to C-523.2511—is divided into twelve equal steps or semi-tones. This ensures that all twelve keys sound equally "in tune," but it also means that the fifths end up being "tempered," or slightly flattened.
The Pattern of Connection between the Lü and the Chromatic Scale

The Chinese on the other hand, intent on maintaining the integrity of the natural fifths, were willing to sacrifice the octave. Curt Sachs (1943) considers this an inherent fault of the system:

The cycle of fifths was doomed from the very beginning, because it would graze but never hit the octave, indispensable in building scales. The reason is mathematically obvious: going in fifths means raising the ratio 3/2 to a higher power; the octave has the ratio 2/1; but no power of three can ever coincide with a power of two. (p. 117)

Doomed perhaps in the eyes of a Western musicologist, but the Lü were never used as a scale per se, so there was no need of

---

8 How different is an equal tempered scale from one based on pure fifths? Appendix 2 compares the frequencies (in hertz) of twelve notes derived by dividing an octave (C-261.6256—C-523.2511) into equal sections, to twelve notes derived from C-261.6256 by the "up and down technique" of ascending fifths and descending fourths.
preserving the octave. And besides, from the standpoint of Chinese symbolism, equal temperament represents actual "violence done to numbers," for it alters the original acoustic relation between the tones expressed, in each instance, by the formula 3:2, i.e., the very one possessing the most profound significance for the Chinese, and which is consecrated in their music by immemorial tradition. In their ancient doctrines the figure 3 symbolizes Heaven while the figure 2 symbolizes the Earth, and since between Heaven and Earth there exists, they claim, perfect harmony, this must also be true of two sounds whose relation is 3 to 2 . . . [this] "sublime" principle [was] adopted for the construction of the entire musical system and thus laid down as the basis of their Music. (Yasser, 1932, p. 33)

Music and the philosophy of change were very integrated, and they had a remarkable influence on many facets of Chinese culture. Music "was rooted in the Great One [i.e., the Tao], the universal ideal that nobody can visualize or even conceive" (Lü Pu-we, 3rd century B.C. Cited in Sachs, 1943, p. 109). This meant that time and space, matter and music were congruent and, in their congruency, merely different aspects of the same One. Their differentials, consequently, were congruent as well: a certain season corresponded to a certain cardinal point, or substance, or musical instrument, or note. And the four seasons were separated from one another, not only by definite amounts of time but also by musical intervals: following the up-and-down principle, there was a fifth from autumn to spring, a fourth back to winter, and a fifth to summer [my emphasis], producing the strange equation . . .

(F) Autumn
(C) Spring
(G) Winter
(D) Summer

(Sachs, pp. 109-110)

The relationships between natural fifths (and fourths)—created by the entwining of yang (3) and yin (2)—were a symbolic representation of natural, environmental and cosmological change.
Not only the seasons, but also the movement of the twelve months were linked with the \textit{\textit{lü}}.

<table>
<thead>
<tr>
<th>Lü</th>
<th>Pitch\textsuperscript{9}</th>
<th>Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huang-chung</td>
<td>C</td>
<td>November</td>
</tr>
<tr>
<td>Lin-chung</td>
<td>G</td>
<td>June</td>
</tr>
<tr>
<td>T'ai-tsu</td>
<td>D</td>
<td>January</td>
</tr>
<tr>
<td>Nan-lü</td>
<td>A</td>
<td>August</td>
</tr>
<tr>
<td>Ku-hsi</td>
<td>E</td>
<td>March</td>
</tr>
<tr>
<td>Ying-chung</td>
<td>B</td>
<td>October</td>
</tr>
<tr>
<td>Jui-pin</td>
<td>F#</td>
<td>May</td>
</tr>
<tr>
<td>Ta-lü</td>
<td>C#</td>
<td>December</td>
</tr>
<tr>
<td>I-tse</td>
<td>G#</td>
<td>July</td>
</tr>
<tr>
<td>Chia-chung</td>
<td>D#</td>
<td>February</td>
</tr>
<tr>
<td>Wu-i</td>
<td>A#</td>
<td>September</td>
</tr>
<tr>
<td>Chung-lü</td>
<td>F</td>
<td>April</td>
</tr>
</tbody>
</table>

Figure 13

The Association of Lü and Months
(Adapted from Kaufmann, 1976, p. 149)

The Chinese didn’t view music as simply an expression of the harmony of the Tao; they conceived it as an important way of actually attuning to the cosmos. If the \textit{\textit{lü}} were out of tune, the relationship to Nature would be dissonant, and great problems could ensue:

A strong relationship between the forces of the universe and absolute pitches was of great importance. If during a certain dynasty or during the reign of an emperor calamities befell the people, if there were floods, droughts, pestilences, earthquakes, wars, and other disasters, the next ruler would order his Grand Music Master to revise the pitch of the \textit{huang-chung}. It was believed that if the pitch was in perfect accordance with the forces of the universe, no disasters would occur.

(Kaufmann, 1976, p. 148)

\textsuperscript{9} Remember that the assigning of these pitches to the \textit{\textit{lü}} is quite arbitrary. I include them only as a guide.
The tuning of the *huang chung* was used not only as a reference tone for modifying the length of the other eleven *li*, but also for adjusting the entire system of measurement. The bamboo tube which produced the *huang chung* was a physical isomorph of the harmonious note it produced, and thus its spatial dimensions were also considered to accord with Nature. The size of this fundamental pipe set the standard for the length of the Chinese foot, and also the units of volume and weight.

The total tube of *Huang-chung* the Yellow Bell, has a length of Eighty-one inches subdivided into Nine equal parts of Nine inches each, which is the musical foot. To determine the unit of measure, the same length as the musical foot was taken but was divided into Ten equal parts, each composing ten lines. There are, then, 100 lines in the total length. To fix the unit of weights, one filled the tube *Huang-chung* with grains of millet. Thus one found that it contained 1,200 grains. These 1,200 grains formed the weights to one *Yo* or half-ounce. (Chao, 1934, pp. 24-25)

Kaufmann (1976) notes that "during the long history of Chinese music there were numerous endeavors to rectify the pitch of the *huang-chung*. These changes had their influence upon the entire system of weights and measures" (p. 148).

The legendary origin of the *li* reveals more correspondences with the *I Ching*.

---

10 Lü Pu-we (3rd century B.C.) tells a legend about the time when the *huang chung* was set for the first time. Ling Lun, the Music Master of Huang Ti (ca. 2698 B.C.) found a bamboo pipe "that reproduced exactly the pitch of his own voice when he spoke without passion, and this he made the *huang chung* " (cited in Sachs, 1943, p. 114). It was thus roughly the medium pitch of a man's voice.

11 The author's transliteration of the Chinese was "Hoang-tsong." I have changed it to "Huang-chung " for the sake of continuity.
Emperor Huang Ti [ca. 2698], so legend says, one day ordered Ling Lun to make pitch pipes. Ling Lun went from the west of the Ta Hia and came to the north of the Yüan Yü mountain. Here he took bamboos from the valley Hia Hi, selected those the internodes of which were thick and even, and cut them between two nodes. Their length was three inches, nine lines. He blew them and made their tone the starting note huang chung of the scale. He blew them and said: 'That's right.' Then he made twelve pipes. Since he heard the male and the female bird Phoenix sing at the foot of the Yüan Yü mountain, he accordingly distinguished the twelve notes. He made six out of the singing of the male Phoenix, and also six out of the singing of the female Phoenix, which all could be derived from the main note huang chung. (Lü Pu-we, 3rd century, B.C. Cited in Sachs, 1943, p. 114)

The odd-numbered lu were sung by the male (yang) bird, and the even-numbered lu by the female (yin) bird (Sachs, p. 114), thus producing two whole-tone scales:

<table>
<thead>
<tr>
<th>Yang Lu</th>
<th>Pitch</th>
<th>Yin Lu</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wu-i</td>
<td>A#</td>
<td>Ying-chung</td>
<td>B</td>
</tr>
<tr>
<td>l-tse</td>
<td>G#</td>
<td>Nan-lü</td>
<td>A</td>
</tr>
<tr>
<td>Jui-pin</td>
<td>F#</td>
<td>Lin-chung</td>
<td>G</td>
</tr>
<tr>
<td>Ku-hsi</td>
<td>E</td>
<td>Chung-lü</td>
<td>F</td>
</tr>
<tr>
<td>T'ai-ts'u</td>
<td>D</td>
<td>Chia-chung</td>
<td>D#</td>
</tr>
<tr>
<td>Huang-chung</td>
<td>C</td>
<td>Ta-lü</td>
<td>C#</td>
</tr>
</tbody>
</table>

Figure 14

Yang and Yin Lu

The same differentiation between yang and yin numbers can be found in the I Ching. Yang lines are nine and yin lines are six; the first, third, and fifth places of a hexagram are considered yang positions, and the second, fourth, and sixth places are yin. And in the "Fifth Wing" it says:

The odd-numbered lu were sung by the male (yang) bird, and the even-numbered lu by the female (yin) bird (Sachs, p. 114), thus producing two whole-tone scales:

<table>
<thead>
<tr>
<th>Yang Lu</th>
<th>Pitch</th>
<th>Yin Lu</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wu-i</td>
<td>A#</td>
<td>Ying-chung</td>
<td>B</td>
</tr>
<tr>
<td>l-tse</td>
<td>G#</td>
<td>Nan-lü</td>
<td>A</td>
</tr>
<tr>
<td>Jui-pin</td>
<td>F#</td>
<td>Lin-chung</td>
<td>G</td>
</tr>
<tr>
<td>Ku-hsi</td>
<td>E</td>
<td>Chung-lü</td>
<td>F</td>
</tr>
<tr>
<td>T'ai-ts'u</td>
<td>D</td>
<td>Chia-chung</td>
<td>D#</td>
</tr>
<tr>
<td>Huang-chung</td>
<td>C</td>
<td>Ta-lü</td>
<td>C#</td>
</tr>
</tbody>
</table>

Figure 14

Yang and Yin Lu

The same differentiation between yang and yin numbers can be found in the I Ching. Yang lines are nine and yin lines are six; the first, third, and fifth places of a hexagram are considered yang positions, and the second, fourth, and sixth places are yin. And in the "Fifth Wing" it says:

12 Huang Ti, the "Yellow Emperor," was considered by the famous historian Ssu-ma Ch'ien (136-85 B.C.) to be the originator of the entire Chinese civilization. (Kaufmann, 1976, p. 75)
Heaven [i.e., yang] is one, earth [i.e., yin] is two; heaven is three, earth, four; heaven is five, earth six; heaven is seven, earth eight; heaven is nine, earth ten. (Ch. 9, R. Wilhelm, 1967, p. 308)

Sachs relates that the "legend of the minister's errand . . . is completed by a tradition that the male bird sang his notes in an ascending, and the female hers in a descending, succession" (p. 119).

In the I Ching yang lines ascend (toward heaven) and yin lines descend (toward the earth). This explains the name of Hexagram 11, "Intermingling": the bottom trigram of three yang lines, Ch'ien, (heaven), moves upward, entwining with the descending yin lines of K'un (earth) (see Fig. 15). The structure of Hexagram 12, "Alienation," is the inverse of this. Here the yang lines of Ch'ien are above the yin lines of K'un, and their respective movements only serve to widen the gap between them (see Fig. 15).

---

**Figure 15**

The Movement of Trigrams
Alienation  
"people estranged"
not fruitful for the exemplar to diversify
the great departs
the small approaches—
that is, heaven and earth do not entwine
the myriads do not communicate

above and below do not entwine—
no integral nations under heaven
(COMMENTARY, Hexagram 12, Yù and Flemons, p. 63)

I mentioned earlier that the twelve lü did not serve as a scale
for the making of music, but as a matrix from which scales could be
built. The six ascending yang notes and the six descending yin notes
are the foundation of the entire system. The same could be said of
the six ascending yang lines of Hexagram 1, Ch‘ien, and the six
descending yin lines of Hexagram 2, K‘un. As heaven and earth
respectively, their inter-relationship can be understood as the source
of the other sixty-two hexagrams.\(^\text{13}\)

The scales that \textit{were} used in the playing of music were called
"pentatonic scales,\(^\text{14}\) and as the name implies, they comprised five
notes\(^\text{15}\): "kung, shang, chiao, chih, and yü. These notes do not
indicate absolute pitches and can be compared to the western
solmization syllables [i.e., do, re, me, sol, and la]. If kung is C, the
other notes are D, E, G, and A" (Kaufmann, 1976, p. 113). The
pentatonic scale is derived precisely the same way as the lü—it is

\(^{13}\) In the "eighth wing," the \textit{Shuo Kua} (Discussion of Trigrams), Ch‘ien
and K‘un trigrams (three yang and three yin lines respectively) are
described as the father and mother who give birth to the six other
kua (see R. Wilhelm, 1967, p. 274).
\(^{14}\) Any of the twelve lü could become the fundamental of one of
these pentatonic scales (Kaufmann, 1976, p. 140).
\(^{15}\) A seven-note scale was introduced later, at the beginning of the
Chou dynasty (1100 B.C.) by adding two notes to the already existing
pentatonic scale (Aalst, 1884/1964, p. 14).
simply the first five notes of the cycle of fifths. For example, the
tone "C, D, E, G, A" is created by going up a fifth from C to G, down
a fourth to D, up a fifth to A, and and down a fourth to E.\textsuperscript{16}

Emperor Shun (2255-2206 B.C.) is said to have been the first to
establish the Five Notes and to associate them with numerous
symbolic connotations (Kaufmann, 1976, p. 76).

The ascribing of numerous connotations to each of the
Five Notes became a characteristic feature in the Chinese
philosophy of music. \textit{Kung} represented the Emperor, the
earth, the number "5," the planet Saturn, the center,
wind, ox, naked, millet, fragrant, sweet, yellow, desire, etc. \textit{Shang} represented the official, metal, the number
"9," the planet Venus (because Venus has a white color
and white is used at funerals), West, autumn, cold, dog,
hairy, hem, rancid, sharp, anger, etc. \textit{Chiao} was linked
with people (in general), wood, the number "8," the
planet Jupiter, East, spring, sunshine sheep, scaly, joy, etc. \textit{Chih} represented fire, the works (of state), the
number "7," the planet Mars, South, summer, heat,
chicken, feathered, beans, burnt (smell), bitter, red,
cheerfulness, etc. \textit{Yu} was linked with water, things (in
general), the number "6," the planet Mercury, North,
winter, rain, pig, shell-covered, Chinese sugar-cane,

\textsuperscript{16} The pentatonic scale was independently created in divers cultures
throughout the world, and "is still a characteristic feature of the
melodies of Czech folk-music, Scottish melodies, the music of
Madagascar, the red Indians, the Eskimos, numerous tribes of the
South Sea, South America, the Negro Spirituals; it was and is the
underlying medium in western popular songs and probably had some
importance in sections of the Gregorian chant, in Tibetan, Mongolian,
Nepalese, Southeast Asian and other folk and sacred music"
(Kaufmann, 1976, p. 113).
rotten (smell), salty, black, grief, etc. (Kaufmann, p. 113)

The *I Ching* and the musical system have been linked historically in the person of Emperor Shun. In addition to setting the Five Notes, he is also credited with both introducing the system of the *pa-yin*—the "eight sounds," created by the eight materials from which musical instruments were made (Kaufmann, p. 76)—and inventing the *pa-kua*, or "eight trigrams" (p. 156) (see Fig. 16).

If there is an historical link between music and the *I Ching*, the association is primarily at a structural level. Textual references are limited to three, two of which are relatively direct, and one which is rather oblique:

17 Fenn (1942) also lists the five metals, the five blessings, the five grains, the five senses, the five relations, the five viscera, and the five poisons. This whole classification system became quite rigid, which is perhaps what prompted Lao Tzu to write:

The five colours blind the eye.
The five tones deafen the ear.
The five flavours cloy the palate.
Racing and hunting madden the mind.
Rare goods tempt men to do wrong.

Therefore, the Sage takes care of the belly, not the eye.
He prefers what is within to what is without.

(ch. 12, Wu version, 1961, p. 15)

18 The invention of the trigrams has also been attributed to the legendary Emporer Fu Hsi (traditionally dated 2852-2738 B.C.), but then he too has been described as the inventor of music (Kaufmann, 1976, p. 74). Exactly who the inventions are credited to is not important, but it is interesting that in either case, both the *I Ching* and the musical system are linked to a common source.

19 This would make sense, given that the structure of trigrams and hexagrams antedate the textual images appended to them.
<table>
<thead>
<tr>
<th>Trigram</th>
<th>Name</th>
<th>Image</th>
<th>Eight Sounds</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ch'ien</td>
<td>Heaven</td>
<td>Stone</td>
<td>Stone-chime</td>
</tr>
<tr>
<td></td>
<td>K'un</td>
<td>Earth</td>
<td>Earth (clay)</td>
<td>Porcelain-cone</td>
</tr>
<tr>
<td></td>
<td>Chen</td>
<td>Thunder</td>
<td>Bamboo</td>
<td>Flute</td>
</tr>
<tr>
<td></td>
<td>Sun</td>
<td>Wind</td>
<td>Wood</td>
<td>Tiger-box</td>
</tr>
<tr>
<td></td>
<td>K'an</td>
<td>Running Water</td>
<td>Skin</td>
<td>Drum</td>
</tr>
<tr>
<td></td>
<td>Li</td>
<td>Fire</td>
<td>Silk</td>
<td>Zither</td>
</tr>
<tr>
<td></td>
<td>Ken</td>
<td>Mountain</td>
<td>Gourd</td>
<td>Reed-organ</td>
</tr>
<tr>
<td></td>
<td>T'ui</td>
<td>Lake</td>
<td>Metal</td>
<td>Bell-chime</td>
</tr>
</tbody>
</table>

**Figure 16**

The Pa-Kua (Eight Trigrams) and Pa-Yin (Eight Sounds)
(Adapted from Aalst, 1884/1964, p.47, & Kaufmann, 1976, p. 157)

1. The title of Hexagram 16, 离 , or "Elephant Dance," is the name of a musical piece, possibly written by Emperor Wu-Ting of the Shang dynasty. The archaic character 离 depicts a pair of hands 手, perhaps clapping a rhythm, together with an elephant 象. It probably refers to a type of ritualistic performance of both music and dance, which imitates the thunderous majesty of nature:

   thunder roars from earth—

Elephant Dance
ancient kings composed music
honoured heart-directed actions
reverently made sacrifice to High Divinity
lived up to the ancestors

(Hex. 16, PRIMARY IMAGE, Yu and Flemons, 1983, p. 75)

2. In Hexagram 61, Chung Fu, "Centering Nurtured Integrity," the third LINE IMAGE reads:

6/3
finds the enemy
either beats the drum or withdraws
either tears flow or voices sing

COMMENT
either beats the drum or withdraws—
out of place

In this case the beating of the drum would signal fighters in a troop of warriors to advance.

3. The title of Hexagram 60, Chieh, or "Measured" has a double meaning. The archaic form of the character is a picture of bamboo: The nodes on the stem of the bamboo plants separate the stalk into sections , and thus serve as units of measurement. The word also means "to stem the flow," to keep things and events in check. Thus the hexagram means literally "to measure," but also "to maintain a regulated, proportioned movement":

streams over the lake—
Measured
the exemplar sets the system of numbering and measuring
ponders heart-directed movements

(Hex. 16, PRIMARY IMAGE, Yu and Flemons, 1983, p. 210)

There are no overt musical references made in the hexagram, but it is important to keep in mind that the bamboo stem was the Chinese metaphor for musical time, "with its joints and nodes symbolizing the beats that articulate the continuity of the music" (Rowell, 1983,
Also, music carried with it the same double sense as the title Chieh. As has already been explained, the bamboo pitch-pipe huang chung established the length of the the chinese foot, and was thus an instrument of measurement. And at least one function of music was to bring a sense of measured, balanced, order:

The melodies were made (in such a manner) that they provided pleasure without causing anything disturbing. . . . They made the turns and passages and the ascent and descent, the angular and gentle features (of the dances) in such a manner that they moved the minds of the people and that which was virtuous in their hearts, without allowing the appearance of bad sentiments and unruly attitudes. This was the way how the ancient rulers shaped their music. (Yüeh Chi, section 37, ch. 27, Kaufmann version, 1976, p. 47)

The music of ancient China functioned as a sacred connection between people and the cosmos, and may well have inspired the philosophical tenor and structure of the I Ching. In its formal and rhythmic completeness, in its patterned flow, music is an analogue of change in living systems. Leaving the book in abeyance until the next chapter, I wish now to concentrate on music alone, to use it as a conceptual map for an exploration of the nature of family systems and the process of therapeutic change. In order to do this, I shall
widen my scope and draw on the rhythmic, melodic, and chordal aspects of a distinctly Western modality: jazz.

Imagine, for illustration, a pianist, alone in her studio, playing Rogers and Hart's "My Funny Valentine" (see Fig. 17). The melody, as it is played, is nothing if not a pattern of change, a series of relationships forming and dissipating in time.

Let us listen to a melody, allowing ourselves to be lulled by it: do we not have the clear perception of a movement which is not attached to a mobile, of a change without anything changing? This change is enough, it is the thing itself. And even if it takes time, it is still indivisible; if the melody stopped sooner it would no longer be the same sonorous whole, it would be another, equally indivisible. (Bergson, 1947, p. 147)

No individual note of the piece makes sense apart from the moving pattern of the whole (which includes the musician): music is composed of relations.

It is interesting that, in pulling a melody out of memory, most people do not discriminate as to key, so that they are as likely to sing "Happy Birthday" in the key of F-sharp as in the key of C. This indicates that tone relationships, rather than absolute tones, are stored [in memory]. (Hofstadter, 1979, p. 363)

Ancient Chinese music and jazz may well seem worlds apart, but they are connected in an interesting way. Referring back to the cycle of fifths (Figure 12), it is evident that the circle can either move clockwise (up a fifth, down a fourth, up a fifth, etc.), or it can move counter-clockwise (up a fourth, down a fifth, up a fourth, etc.). According to Mehegan (1959, pp. 157-158), many of the chordal patterns in jazz are based on the latter, counter-clockwise movement. He calls this the "jazz circle," and provides some examples. In the key of C, they look like this:

- Dm7—G7—Cmaj.7
- Em7—Am7—Dm7—G7—Cmaj.7
- Gm7—E7—Am7—D7—G7—Cmaj.7
- Cmaj.7—Fmaj.7—Gm7—Em7—Am7—Dm7—G7—Cmaj.7

The music has no "objective" existence apart from its performance. In this case, since she is alone, the musician is both performer and audience.
In therapy, an appreciation of the importance of relationship has resulted in a shift from understanding a person's problems as being somehow embodied in the individual to a "perspective that emphasizes treating the patterns that connect the problem behavior

22 A professional "fake-book" with charts of many jazz tunes.
of one person with the behavior of other people" (Keeney & Ross, 1985, p. 3). Carl Whitaker describes his own transition from seeing individuals, to seeing two, and finally three generation families:

My engagement with two-generation families began in 1945. I decided I didn't believe in individuals. They seemed more and more like fragments of the family. Then as time went on, I heard the ghost of grandmother knocking on the door. Each dad was apparently trying to restructure his own family of origin, using his wife and children as puppets. Each mom was also pushing to rekindle her at-home security by using the same nuclear family group. Why not get the three-generation system together and at least begin an accommodation to the introjected reality of the entire two-family system? ... I don't believe in the individual or free will at all any more. I'm tempted to say over the phone before the first visit, "Bring three generations or don't bother to start."...

Looking back to individual therapy, I wonder how and if I really changed anybody. (Neill and Kniskern, 1982, pp. 306-307)

What Whitaker did was to expand the network of relationships which he considered relevant to an understanding of an individual problem. If relationship is primary, as it is in anything and everything having to do with Mind, then neither problems nor people—in fact nothing which is in any sense "known"—can exist in isolation, but must always be part of a context.

Without context, words and actions have no meaning at all. This is true not only of human communication in words but also of all communication whatsoever, of all mental process, of all mind, including that which tells the sea anemone how to grow and the amoeba what he should do next. (Bateson, 1979a, p. 16)

In musical terms, the significance and effect of, say, the whole-note C in the twenty-third bar of "My Funny Valentine" (see Fig. 17) can only be appreciated within the context of the Abmaj.7 chord supporting it; the F and G quarter-notes immediately preceding it; the six bars leading up to it which create the expectancy (or the "need") for the partial resolution that the C (as part of the Abmaj.7
chord) satisfies; the expectancy that is created for the remaining thirteen bars; and in fact the piece as a whole, including the key and time signatures, the tempo, the chord progression, the timbre of the piano, the style of the pianist, and so on.

In a world of rhythmic change, context is not a static objective fact, but a process of connection; accordingly, Bateson (p. 15) defines it as "pattern through time." Like a musical piece—with the discrete frequencies of its composite notes, layered complexity, and movement in time—context is an emerging whole.

We have been trained to think of patterns, with the exception of those of music, as fixed affairs. It is easier and lazier that way but, of course, all nonsense. In truth, the right way to begin to think about the pattern which connects [i.e., context] is to think of it as primarily (whatever that means) a dance of interacting parts. (p. 13)

Because it combines both structure (pattern) and process (time), the specification of context necessarily entails a double description, "a zigzag ladder of dialectic between form and process" (Bateson, 1979a, 215). In the case of "My Funny Valentine," a description of the context of the C in the twenty-third bar will include:

1. Two or more levels of classification (what in Russelian terms would be called levels of logical type): The C is an individual note within an A♭maj7 chord, it is the culmination a sub-theme which began with the last two notes of the sixteenth bar, and of course it is an essential element in the entire melody (see Fig. 18).
2. The element of process or time: The C is a whole-note with a specific duration (since it is tied over to the half-note in the next bar it is held for a count of six), which takes its place in a rhythmic progression, as part of a ballad (played slowly) with a particular time signature (pulse).\textsuperscript{23}

In order for change to be significant, it must modify the context as a whole. Bateson (1979a) remarks that "structure may determine process and . . . process may determine structure" (p. 217). Contextual change can thus be initiated on either side of the distinction: for example the key could be modulated from C minor to C major (a change in structure which would require a modification in the melodic line) or the time signature could be...

\textsuperscript{23} As is evident from the description, there is considerable overlap between the two components of context—the structural aspects contain elements of time, and the durational aspects can be classified into hierarchical levels. This suggests that the separation of form and process may simply be an artifact of language; nevertheless, it provides a useful distinction for organizing the theory of therapeutic change.
changed from 4/4 to 3/4. By changing the pulse to "waltz time," syncopation would be introduced and the gestalt of the piece would be dramatically different (see Fig. 19). An alteration in either structure or process would modify the system of relations in some way, and would thus *rescore* the music-as-played-and-heard: i.e., it would change the context.

![Musical notation]

**Figure 19**

"My Funny Valentine" in Waltz Time

In therapeutic terms, the word "rescoring" can be used in a general sense to refer to any statement or action which, in modifying elements of the context, effectively alters the patterned flow of a system. Consider first the actions taken by a counsellor who seeks to rescore the family's system of *classification*. This type of intervention is commonly called "reframing."
To reframe . . . means to change the conceptual and/or emotional setting or viewpoint in relation to which a situation is experienced and to place it in another frame which fits the "facts" of the same concrete situation equally well or even better, and thereby changes its entire meaning. (Watzlawick, Weakland, & Fisch, 1974, p. 95)

The theory is that by putting a behavior or circumstance in a new "frame," its meaning is altered for all members of the system, and everyone will change their behaviour in response to it.

Reframing an adolescent's behavior as "disobedient" rather than "sick" interrupts the kind of solution that parents and professionals might design. In the new frame, it does not make any sense to respond to "disobedient" behavior as one would to "sick" behavior. To carry the example a step further, if the reframe involved naming the adolescent's behavior as providing some useful service to the family (rather than framing it as "sick" or "disobedient"), then all logic for trying to solve or correct the behavior becomes questionable. (Keeney and Ross, 1985, pp. 89-90)

Since a frame is considered to be analogous to what in the theory of logical types is called a "class," reframing is essentially a kind of reclassifying:

Classes are exhaustive collections of entities (the members) which have specific characteristics common to all of them. But membership in a given class is very rarely exclusive. One and the same entity can usually be conceived as a member of different classes. Since classes are not themselves tangible objects, but concepts and therefore constructs of our minds, the assignment of an object to a given class is learned or is the outcome of choice, and is by no means an ultimate, immutable truth. . . .

In its most abstract terms, reframing means changing the emphasis from one class membership of an object [i.e., an event, situation, relationship, or pattern of behavior] to another, equally valid class membership, or, especially, introducing such a new class membership into the conceptualization of all concerned. (pp. 97-98)

An alternative way of rescoring the context of a family is to modify their process. In contradistinction to reframing, this
intervention can be labelled *reflowing*. Techniques of this kind consist of

prescribing the presenting problem but changing when, where, and how it will occur. In this way, the therapist introduces a change that appears to be minor but in fact alters so much the context in which the presenting problem takes place that it disappears.

The hypothesis is that [in the case of marital therapy] the nonsymptomatic spouse collaborates in the presenting problem and "sets up" the other spouse. Changing the when, where, and how of the problem behavior makes it impossible for it to occur as a response to some message of the other spouse.

For example: A couple in their sixties came to therapy because the wife could no longer tolerate her husband's constant recriminations and harassment for an affair she had had thirty years before. The husband said that he needed to express his pain for what she had done to him. The wife said that his expressions of pain were verbal abuse that on occasion had even become physical abuse. The therapist suggested that it was important for the husband to express his pain and for the wife to listen to him with sympathy. A special time, place, and manner in which this would happen would be set up. (Madanes, 1984, pp. 174-176)

One of the ways Minuchin and Fishman (1981) encourage contextual change is by reflowing the *duration* of family members' interactions:

Family members have evolved a system of notation to regulate the tempo and time of their dance. Some of these notes are conveyed by small, nonverbal signals that carry the message, "We have reached a dangerous threshold, or an unused or unusual pathway. Beware, slow up, or stop." . . .

One of the techniques for increasing intensity is for the therapist to encourage the family members to continue transacting after the rules of the system have indicated a red or yellow light. Although the prolonged transaction is done hesitatingly by the family, their move from the habitual into the unfamiliar opens up the possibility of their exploring alternative modes of transaction. Similar results can be achieved by reducing the time in which people are usually involved in a transaction. (p. 129)

Both reframing and reflowing can result in therapeutic change. However it must be stressed that the therapist is not introducing
change into a so-called "static system"—there is no such thing—but is rather contributing something to the family's pattern which will allow them to change the way they are already changing. This involvement on the part of the counsellor is usually described (as I did above) in terms of his or her "interventions."

Varying one's behavior corresponds to what is traditionally called "intervention," while recognizing the effects of these interventions may be called "diagnosis." As Haley (1971) suggests, the family therapist is "interested in diagnosing how the family responds to his therapeutic interventions" (p. 282). (Keeney, 1983, p. 133).

The word "intervene" comes from the Latin *inter-"between," and *venire "to come"; thus an "intervention" is a means of coming between the members of the family, or of interrupting the process of their interaction. In keeping with paradigm of change being developed here, I suggest instead that the therapist's actions might be more appropriately thought of as an *improvisation which is played as counterpoint to the family's theme.

The jazz improviser fits with the chord progressions of the tune, but introduces adaptiveness and flexibility by re-presenting the pattern of the melody in a variety of new ways.

For the jazz musician the song is spoken of as a sequence of chords with an originally written melody, which in garden-variety play is performed through a first time and then the chords are successively reiterated as improvised melodies are substituted for the theme of the tune. *When the jazzman improvises, . . . he "plays on the changes," generates "melodies laid over" the underlying sequence of chords* [my emphasis]. (Sudnow, 1978, p. 3)

In first meeting the family, the therapist as jazz player develops rapport by playing their melody according to their chord
changes and in time with their rhythm. Minuchin and Fishman (1981) call this process *joining*.

How does a therapist join a family? Like the family members, the therapist is "more human than otherwise," in Harry Stack Sullivan's phrase. Somewhere inside, he has resonating chords that can respond to any human frequency. In forming the therapeutic system, aspects of himself that facilitate the building of common ground with the family members will be elicited. And the therapist will deliberately activate self-segments that are congruent with the family. But he will join in a way that leaves him free to jar the family members. He will accommodate to the family, but he will also require the family to accommodate to him. (p. 32)

Much has been written about the therapist's relationship to the family system, and his or her responsibility for change. Keeney (1983) reminds us that

a therapist may join a family (or part of a family) and nothing may appear to change, or the therapist's interventions may coincide with events of apparent change. Although a therapist's presence in a system sometimes appears to make a difference, it is important to realize that "control" refers to the whole self-corrective system, not a unilateral influence from a therapist or any other member. However, the therapist's presence helps determine how a cybernetic system is organized.

From the perspective of cybernetics, the most a therapist can do is vary his behavior, recognize the subsequent behavior of those in the surrounding social field, and modify his reactions to their reactions. The therapist is not controlling their behavior, but is recognizing the response of their behavior to his and the response of his behavior to theirs. (pp. 132-133)

The therapeutic improvisor does not "cause" change, but rather proposes it, once he or she is established as part of the *ensemble* (from the Latin *insimul*—"at the same time") of the family. This process can be illuminated by again drawing on the metaphor of music.
Imagine a family caught in vicious circle of interactions which are stale and predictable like a broken record—as if, say, they were playing the first four bars of "My Funny Valentine," over and over and over again (see Fig. 20).

An improviser, a woman therapist, plays along for awhile, and then instead of simply returning to the C, E♭, and G notes of the C minor chord in the first bar, she adds one note—an A♭. Combined with the other three notes this makes a new chord, an A♭ major 7th (see Fig. 21, bar five), and it introduces a musical expectation of change. The three notes of the melody in the fifth bar (C, D, and E♭) are the same as those in the first, but now instead of being the 1st, 2nd, and 3rd notes of the root chord (which only reinforces it), these same notes now spell out the 3rd, 4th, and 5th of the A♭ major 7th, and

24 It is no accident that the unfolding of this "improvisation" is identical to what is written in the fifth and sixth bars of the standard tune. By presenting what has already been written out, the changes I am describing can be followed on the musical score. I do not wish to imply that this is the only note that the jazz player could have introduced or that it had to happen at precisely this time; nor that there is a fixed response to such a proposition.

25 The piece is in the key of C minor.
thus without "changing" themselves, they take on a new meaning and become a movement to somewhere new—perhaps to an F minor 7th chord in the sixth bar, and a B♭ in the melody line (an entirely new note). The therapist doesn't "intervene," but simply erases the "repeat" sign at the end of the fourth bar (see Fig. 20) by adding a new note to the existing chord. She proposes change by creating a bridge, a transitional passage to new patterns.

This is somewhat analogous to a case of Milton Erickson's. He was once asked to see a sixteen-year-old high-school girl who sucked her thumb, much to the "exasperation of her parents, her teachers, her classmates, the school bus driver, and everyone who came in contact with her" (Haley, 1973, p. 195). Having gotten the parents to agree not to interfere with the therapy, and not to admonish their daughter for sucking her thumb, he arranged a schedule for the girl's sucking, and instructed her to "irk the hell" out of her parents and anyone else she wanted to bother. "In less than four weeks the girl had discontinued her thumbsucking, both at home and elsewhere. She became increasingly interested in much more legitimate teen-age activities of her own group. Her adjustments
improved in all regards" (p. 196). Erickson took a theme—"thumbsucking bugs people"—and he altered the context in a slight, but significant way (not unlike adding an A♭ to a C minor chord) and the "same" thumbsucking behavior (a melody line of C, D, E) resolved itself into new opportunities.

The metaphor of therapeutic improvisation is similar to Keeney and Ross' explanation of change in terms of the introduction of "meaningful noise" into the family system:

Following Ross Ashby (1956) and Gregory Bateson (1979), all adaptive change requires a source of the "new" from which alternative behaviors, choices, structures, patterns, may be drawn. Although Ashby and Bateson referred to this source of the new as "random," it is important to realize that not all sources of randomness or noise are effective in therapy. Clients, as well as therapists, must believe that there is some communication that not only is new to them but has meaning. We therefore prefer to speak of this communication as "meaningful noise."

If a client believes there is meaning in a communication, his search for meaning will help construct it. Sources of meaningful noise may include references to family history, cultural myth, psychobabble, religious metaphor, and stories about other clients (fictional or not). The descriptions and explanations clients propose or request are the best clues for what form of noise will be useful. (p. 52)

If a jazz improvisation is too "free," if it strays too far from the ensemble's chord progression, it will be heard and rejected as meaningless noise. The challenge is rather to take a melodic pattern, and following the underlying chord progression, to stretch it, turn it upside down, reverse it, shrink it, syncopate it, and so on. In other words, the "freedom" is not in the improvised line per se, but in its relation to the structure of the chords and the pattern of the melody.
This chapter has used music as an epistemological tool for exploring the nature of systemic relationships. Based on the philosophy of the *I Ching*, and supported by the work of Langer, Bergson, and Bateson, this "musical" paradigm recognizes the importance of both structure and process in the conceptualization and implementation of therapeutic change. Whether playing with the encompassing score of a three-generation family, or the motives of an individual, the counsellor's improvisations propose transitional bridges to more complete patterns of interaction. Reframing or reflowing the *context* of the system in a positive way helps the ensemble to *play together*; it is only then that their changes can begin to change, begin to create a healthy context where there is both complexity of form and adaptive and flowing process. Note that health is *not* synonymous with simple-minded "harmony," a

26 A motive (or motif) is a short musical phrase or theme. The idea here is that our individual motives are unique expressions of a more complete family melody. This is similar to Whitaker's notion that we are "fragments of the family" (Neill and Kniskern, 1982, p. 306), but more in keeping with Bateson's pattern-like metaphor of moiré phenomena: "Do we . . . carry around with us . . . samples of various sorts of regularity against which we can try the information (news of differences) that comes in from outside" (p. 89)? Defined in musical terms, the concept of *motivation* could thus be discussed, not in terms of "a conscious or unconscious need, drive, etc. that incites a person to some action or behaviour" (Funk and Wagnalls, 1980, p. 517), but as a "pattern in time."

27 If a family comes in complaining that their son's behavior is inappropriate and is driving them crazy, they are, in a sense, saying that he is out of tune or out of rhythm with the rest of them. But any good improviser knows that a "wrong" note can be woven in to the melody as a "passing tone," or an embellishment of tonal color, and that rhythmic "mistakes" are but suggestions of syncopation.
sweetness without strife or conflict. The movement, depth, and richness of a lived composition is dependent on the rhythmic cycling of convergence and divergence, consonance and dissonance, tension and release.
Chapter 6
Patterns of Change

The relational character of change has been explored in terms of the recursive balance and "intelligent rhythm" of the Tao, the connecting knot of complementarity, the unfoldment of cycles of completion, and the rhythmic and tonal modulations of music. Each provides a slightly different vantage from which to view the patterns of change in the I Ching, and helps illumine the underlying systemic logic of the book. With this foundation in place, it is now possible to take a closer look at the nature of hexagrams, and suggest ways in which they can be interpreted. In some basic and fundamental ways, these metaphoric representations of change are very much like stories.

Gregory Bateson (1975b) defines "story" as "an aggregate of formal relations scattered in time to make a sequence having a certain sort of minuet formal dance to it." In the connections between characters, in the development of plot and the time of its telling, a story weaves a pattern. And as with any moving pattern, meaning cannot be localized; rather, it is generated and lives in relation. Cochran (1986) explains that meaning is contextual, implicit in . . . [the] story. There is no one place to look. One simply enters the [hermeneutical] circle,
assessing parts to comprehend the whole and assessing the whole to comprehend the parts. Understanding generates more understanding until a general appreciation is reached. (p. 15)

Bateson (1975a) maintains that "stories are the royal road to the study of epistemology." He believes that our thought processes, our minds, are basically layered and interwoven like parts of a story.

[This] is in fact how people think, and it is . . . the only way in which they could think. There are no other ways of dealing with this problem of relations in a succinct form in which all the relations you want to think about sort of simultaneously can get into the picture together or get into the picture piled on top of each other so they pull on each other the right way. This is the function of stories. . . . What is true is the relations within the story. (1979b)

Similarly, William Carlos Williams (1954/1962, pp. 75-76) locates mind in the poem:

Be patient that I address you in a poem,
there is no other fit medium.
The mind lives there. It is uncertain,
can trick us and leave us agonized. But for resources what can equal it? There is nothing. We should be lost without its wings to fly off upon.

.................. . . . . . . . . . . . . . . . . . . . . . . . . .

. . . . . . A new world is only a new mind.
And the mind and the poem are all apiece.

For Cochran (1986, p. 13), the story medium becomes a means of charting the narrative structure of a life drama: "A series of

---

1 A modification of Freud's statement that dreams are the royal road to the study of the unconscious.
interrelated stories make up a larger story, which is the story of one's life. Each story is a qualitative whole, and the overall story is a qualitative whole." As such, it is the essence of our humanness:

Human beings have been variously characterized by erect posture, use of tools, and use of symbols, among other things. However, it would be more apt to characterize human beings as creatures and creators of drama, of story, of a narrative mode of existence, for as soon as the static characteristics above are unfrozen to move over time, we have a story. (Cochran, p. 4)

Bateson would doubtless agree, but since (for him) mind is not the sole possession of the individual, nor even just the social possession of humankind, story—that "little knot or complex ... of connectedness which we call relevance (1979a, p. 14)—is characteristic of Mind in general, and thus is a feature of the whole of living systems:

The fact of thinking in terms of stories does not isolate human beings as something separate from the starfish and the sea anemones, the coconut palms and the primroses. Rather, if the world be connected, if I am at all fundamentally right in what I am saying, then thinking in terms of stories must be shared by all mind or minds, whether ours or those of redwood forests and sea anemones. (1979a, p. 14)

Ancient Chinese sages must have seen the world in much the same way. They lived their life-stories in accord with the encompassing process of the Tao, the meta-story of change. And those who created the I Ching constructed a book of sixty-four themes or chapters, each a kind of short-story facet of the Tao. The patterns are considered relevant to a myriad of situations at any level of existence, whether heaven, earth, or human. Based on the difference between yin and yang, and illustrated with mantic, philosophical, and poetic phrases, hexagrams, in both structure and image, are analogic expressions of an analogic world of Connection.
Analogical science is the study of correspondences. It is, however, a science which exists only by virtue of differences. Precisely because this is not that, it is possible to extend a bridge between this and that. The bridge is the word like, or the word is: this is like that, this is that. The bridge does not do away with distance: it is an intermediary; neither does it eliminate differences: it establishes a relation between different terms. . . . Analogy says that everything is the metaphor of something else. (Paz, 1974, pp. 72-73)

Metaphor, like story, is not simply a literary form—it is, as Bateson (1975b) says, "right at the bottom of being alive." The biological world, organized in terms of formal relations, is metaphorically composed: the petals and sepals of a flower are metaphors of leaves; the elephant's trunk is a metaphor of the human nose; the wombat, a marsupial, is a metaphor of the mammalian woodchuck; and so on.

Helumut Wilhelm (1960) explains that "in a magical world view . . . such as the one which . . . left its impress on the oldest strata of [the I Ching], a thing and its image are identical" (p. 35). He is referring primarily to the natural images—heaven, earth, thunder, mountain, lake, wind, running water, fire—which are associated with the eight trigrams (see Fig. 4). But the correspondence between the book and Nature goes beyond this. Hexagrams, with their configurations of yin and yang lines and textual images, tell the story of a systemic world in a systemic way. The metaphorical composition of the book is not separate from, but part of the world it describes: the story of the Tao flows through them both.

Meaning is contextually determined, evoked in part from the relationship between phrases. The nature of these connections is governed by the unfolding pattern of the hexagram itself, which in turn has structural and textual relationships with other hexagrams.
Consider, for example, Hexagram 49, "Processing the Hide." This is a particularly interesting "story" because the text deals explicitly with the process of cyclic and transformational change—both of which are suggested by the title, \( Ko \). This character refers in part to the molting of animals, the seasonal (hence cyclic) renewal of their coat or pelt. However, the archaic form of the word \( Ko \) is a picture of a pair of hands (\( \equiv \) ) converting the hide of an animal (\( \equiv \) ) into leather: a transformation.

\[
\begin{array}{c}
\text{49} \\
\begin{array}{c}
\equiv \\
\equiv
\end{array}
\end{array}
\]

\( Ko \)

**PRIMARY TEXT**

*Processing the Hide*
- concluding day nurtures integrity
- originates flows freely
- bears fruit diversifies
- sorrow vanishes

**COMMENTARY**

*Processing the Hide*
- *water and fire quell each other*—
  *two sisters live together*

*their hearts at cross purposes*—
*speaks of processing the hide*

*concluding day nurtures integrity*—
*processing the hide with steadfast words*

*iconic and luminous opens up*—
*thoroughly free flowing with attunement*

*processing the hide in place*—
*sorrow then vanishes*
heaven and earth  processing the hide—
the four seasons complete

T'ang and Wu processed the hide of the directive—
coordinated with heaven and echoed with people

the time of Processing the Hide is remarkably great

PRIMARY IMAGE
fire within the lake—
Processing the Hide
the exemplar introduced the calendar
illumined the time

LINE IMAGES

INITIAL 9
thongs with the processed hide of the yellow ox
COMMENT
thongs with yellow ox hide—
can't act

6/2
concluding day
processes the hide
expeditions auspicious
no dissonance
COMMENT
concluding day
processes the hide—
makes strides holds festivities

9/3
expedition precarious
danger will sharpen
opens discussion on "processing the hide" three times
nurtures integrity
COMMENT
opens discussion on "processing the hide" three times—
what else?

---

2 This word , which refers to the act of tying or binding, contains the title, Ko:
The PRIMARY TEXT usually elaborates the meaning of the title, and provides an overview to the nature of the pattern as a whole. In this hexagram, the cyclical underpinnings of "Processing the Hide" are highlighted by the inclusion of the four phases of the cycle of completion (originates, flows freely, bears fruit, diversifies), and by the use of the term "concluding day" (or "chi" Cerrar), the sixth in the ten-day cycle of "heaven's stems." Chi directly precedes keng, the "day of change," and thus symbolizes the period of time at the edge of transformation.

The COMMENTARY generally clarifies and augments part or all of the PRIMARY TEXT. Water and fire are the images associated with the component trigrams tui and li respectively; their family
positions as youngest and middle daughters (see Fig. 4) explains the
reference to the two sisters whose hearts are at cross purposes.
Conflict can give rise to change.

The interaction of heaven and earth is also a kind of
"processing the hide," a cyclic change which manifests in the turning
of the seasons. The political directives of T'ang and Wu (leaders in
the Shang and Chou dynasties, respectively) "molted" and
"transformed" in response to heaven and in relation to the people,
and were thus attuned to the process of the Tao.

Because the change of Ko is tied to completion, timing is very
important. This idea, stated first in the COMMENTARY, is reiterated
in the PRIMARY IMAGE, where the exemplar is described as
introducing the calendar. In ancient China, each new leader would
adjust the calendar anew, to better coordinate the dynasty with the
changes in the cosmos.\(^3\)

The "fire within the lake" in the PRIMARY IMAGE is again a
reference to the relation between the two component trigrams: \(\li\)
(fire, heat) below, and \(\uwl\) (lake) above. The image is one of circular
movement: heated water at the bottom of a lake would rise, while
cold water would stream down to replace it, producing a cyclic
current.

The LINE IMAGES are probably the most difficult part of the
book to understand. The phrases appended to each stage of the
hexagram are an eclectic assortment of images and pronouncements
which relate to each other in a variety of ways, and thus do not

\[^3\] cf. the analogous modifications to the music system as described in
the previous chapter. The "concluding day" mentioned in the
PRIMARY TEXT is of course one of the days on the calendar.
always follow a clearly defined narrative line. Helmut Wilhelm (1960) distinguishes between two types or styles of hexagrams, two general ways in which the story of change is told:

The composition of these accompanying texts is not carried out according to a fixed schema. Making the necessary allowances, we can distinguish two fundamental types. The first, clearer, type suggests the musical pattern of theme and variations. The chosen theme persists through the six stages, in various aspects.\(^4\) The second type is more difficult to analyze. A recurrent leitmotiv is lacking here; instead, six different stages whose connection is usually an inner one are joined together in mosaic fashion. But in both types, the so-called judgment [i.e., PRIMARY TEXT] is the tenor which is maintained through all the changes. (p. 50)

Hexagram 49 is illustrative more of the second, mosaic type of storyline.

As in any story, meaning is created out of a web of relationships, a "hermeneutical circle." But hexagrams are unique in that connections exist not only between the images and ideas in the text, but also arise from the pattern of the configurations themselves.\(^5\) Each six-line diagram is composed of two trigrams, one on top of the other. This means that there is an inherent relationship between the respective stages of the two component figures (see H. Wilhelm, 1960, p. 47).\(^6\) Corresponding lines in the first and fourth, second and fifth, and third and sixth positions are considered to be closely connected, especially when they are

---

\(^4\) This is most clearly seen in Hexagram 1, "Enflaming Inspiration" (see Ch. 4, pp. 82-83).

\(^5\) All of the following methods of analyzing hexagrams were taught to me by Titus Yü.

\(^6\) There is an error in the second sentence of the second paragraph on page 47 of Wilhelm's book, where it says "Thus the first and third, the second and fourth, the third and fifth correspond . . ." It should read: "Thus the first and fourth, the second and fifth, the third and sixth correspond . . ."
different—i.e., when one is yang and the other yin. These relationships are taken into account when analyzing the meaning of the texts; in Hexagram 49 this kind of connection applies to lines two and five, and three and six (see Fig. 22, and the discussion below).

Figure 22

Corresponding Lines of Hexagram 49

The stacked lines of yin and yang also lend themselves to various kinds of inversions and reversals. For instance, if Hexagram 49 is turned upside down, Hexagram 50, *Ting* .Cl1, or "Sacrificial Cauldron" results.7 The first line in *Ko* is seen has having a special relationship to the top line in *Ting*, the second line in *Ko* to the fifth line in *Ting*, and so on (see Fig. 23). The respective LINE IMAGES can be interpreted accordingly.

As was discussed in Chapter 2, yin and yang are continually changing into one another. If any one of the six lines of a hexagram shifts to its complement, the pattern as a whole, like a melody, is also transformed. One method of analysis involves independently changing each of the lines into its polar opposite, thereby forming six new hexagrams (see Fig. 24). Traditionally, the created figures are seen as latent themes, lying within their respective corresponding

---

7 It is not uncommon for successive hexagrams to be inversions of each other.
lines in the root hexagram. In this case, Hexagram 31, *Hsien* 成 or "Stimulation," is considered latent to line one of *Ko*; Hexagram 43, *Kuai* 刃 or "Incisive" is buried within line two; and so on.

If all lines are changed simultaneously, the whole hexagram is reversed, and the resulting complementary figure is understood as latent to the manifest hexagram as a whole. The complement of "Processing the Hide" is Hexagram 4, *Meng* 萌, or "The Ignorant" (see Fig. 25). Again, the texts can be read with this in mind.
These manipulations of the figures are essentially a systematic means of extending the network of relationships, both within and between hexagrams, as an aid to analysis of the original pattern. Neither lines nor hexagrams exist in isolation, but are nested within multiple contexts; the variety and complexity of the connections are a good example of the analogic world view which informs the book. Although an in-depth textual analysis which incorporates all these associations lies outside the scope of this thesis, it is possible to sketch the preliminaries of such an interpretation.

The bottom, yang (INITIAL 9) line presents an interesting paradox. The processed hide, which symbolizes action and change, is used (as thonging) to prevent action:

"Thongs with yellow ox hide—can't act"

Perhaps this has to do with the importance of completion discussed above. The initial line, the inception of the hexagram, is bound by the constraints of a pattern which depends upon conclusion for the emergence of change. It is still too early for transformation.

Within this image of constraint lies Hexagram 31, "Stimulation" (see Fig. 24), which describes the inner awareness and stimulation of all parts of the body, from the toes, to the legs and back, and on to
the "jaw, cheeks and tongue" (Yü and Flemons, pp. 120-122). Combined, the manifest line and latent hexagram suggest the notion of pent-up energy.

Release comes in the next line with the arrival of "concluding day." Change begins (the hide is processed) in keeping with the time, and moves outward: "expeditions auspicious." There is "no dissonance," and the development of the change at this heng (free flowing) phase of the cycle of completion "makes strides."

The actions undertaken in the second line of a hexagram are often described as auspicious. Part of the reason for this is structural: as the middle stage of the bottom trigram, this line is considered to be "centered" and thus in a position of balance. There is also an association between 6/2 of this hexagram and the fifth stage of "Sacrificial Cauldron" (see Fig. 23), where it says:

6/5
sacrificial cauldron with yellow ears
metal rings
bears fruit diversifies

COMMENT
sacrificial cauldron with yellow ears—
the center is supported

Hexagram 50 describes the gradual restoration of a sacrificial cauldron to a state of beauty and balance. The yellow ears and metal rings are outward signs of inner stability: "the center is supported." Similarly, the outward orientation of 6/2 of "Processing the Hide" is balanced within.

But there are thresholds in any enterprise: if the forward motion of a change is continued as it is in 9/3, there is danger of

---

8 The Chinese character  is a picture of an ear. It refers to the handles by which the cauldron is held.
going too far. Balance can be maintained by directing one's focus and efforts within, by "nurturing integrity." Planning, assessment, and review can also serve as a corrective—thus discussion on "processing the hide" is opened three times. The danger of imbalance is highlighted in this line's relation to the 9/4 in Hexagram 50 (see Fig. 23). The LINE IMAGE there reads:

9/4
sacrificial cauldron's legs broken
spills the chieftain's feast
his body drenched precarious
COMMENT
spills the chieftain's feast—
how can there be trust?

The inner work of nurturing integrity carries on into the fourth stage of the pattern of Hexagram 49, and "the directive," the governing direction of the change, is renewed—presumably, as in the third and second last lines of the COMMENTARY, in accord with the Tao. The latent hexagram for this line is number 63, Chi Chi 車, or "Having Sailed the River" (see Fig. 24). As can be gathered from the title, this particular story unfolds in the context of completion—the river has already been crossed. Given the cyclical nature of change, this suggests that line four in Hexagram 49 is on the edge of a transformation.

And indeed, the yang line in the fifth place (9/5), the climax of "Processing the Hide," describes the profound tiger-change of the sage.

---

9 "Three times" suggests that every stage of the change is taken into account.
10 The character on the left is an adverb meaning "already." The archaic form of the character on the right 往 depicts a boat 船 with sails 直 (perhaps an early form of the Chinese junk) on a river 水. Combined, they indicate that the crossing of the river has been accomplished.
The tiger is considered by the Chinese to be the king of all animals. A change in its markings—an occurrence which, according to legend, can only happen after it reaches maturity\(^\text{11}\)—is said to have a pervasive influence on its surroundings. Thus the effects of the transformation radiate outward, in an analogous, albeit more complete expression of the process described in 6/2, the position with which this line is in correspondence (see Fig. 22). The sage, with the fiery presence of the tiger and the balance of nurtured integrity, changes when the time is ripe and influences others in the process.

The last line, FINAL 6, corresponds to 9/3 (see Fig. 22), and similarly cautions against carrying the outward direction of the previous line's change too far: "expeditions precarious." Having reached its culmination in 9/5, the pattern of "Processing the Hide" begins to dissipate: the intensity and scope of the tiger's change has begun to wane, decreasing in step-wise increments to the less dramatic molting of the leopard (exemplar), and on to the superficial and ephemeral change of the petty person. At this chen phase of the cycle of completion, the best way of attuning to the situation is to "reside in diversity."

The importance of fulfilment to the transformations described in "Processing the Hide" is further underscored by comparing the hexagram to its complement, Meng 瞑, "The Ignorant" (see Fig. 25). Whereas the ambiance of completion and maturation can be detected in every line of Ko, the predominate theme of Meng is

\(^{11}\text{Once again we see the importance of maturation in the process of transformational change.}\)
newness and immaturity: the naiveté of the neophyte prevails throughout (Hex. 4, Yü and Flemons, pp. 39-41).

The network of relationships within and between hexagrams—the metaphors, the configurations of yin and yang, the structural inversions, reversals, and correspondences—tell the story of the Tao, of Mind. It is a story composed of the elements of change: recursion, balance, rhythm, wholeness, emergence (development), stability, change of change (transformation), difference, connection (continuity) and separation (distinction), levels, paradox, complementarity and symmetry, time and timing, order and disorder, context, spontaneity, interaction, cycles of completion, and modulating patterns.

Mind in therapy—i.e., the pattern of organization [which] connects therapist and client in a way that successfully addresses both corrective change and stability (Keeney & Ross, 1985, p. 7)—also emerges in terms of stories and stories about stories.

The stories people live as well as their stories about those stories are all that a therapist has to work with. In this sense, therapy is a conversation, an exchange of stories. (Keeney, 1983, p. 195)

The shared Mind is a shared story—a story of change:

Karen Jackson, thirty-five, separated from her husband Brian in the month of February, eight months before she and her two children—Gary, eleven, and Sandra, eight—first came in for counselling. The three of them moved to a new apartment in a different area of town in June, and in September both children started classes at their new school. According to Karen, Sandra had

---

12 The names are pseudonyms.
adapted quickly, making friends and getting involved in activities, but Gary was miserable. He had no friends, he always balked at leaving the house in the morning, and often refused to go to school at all. At night when trying to do homework he would sometimes cry and hyperventilate until Karen, in desperation, would phone her brother to come over and calm him down. She was concerned about her son withdrawing more and more into himself, neglecting to wash and refusing to do chores, and she was afraid that in one of his temper tantrums he might someday hurt Sandra. But it was the prospect of him hurting himself that finally prompted Karen to phone for counselling: he told her he didn't think life was worth living.

The theme of suicide was familiar to the family. Nine months earlier, with her business bankrupt and her marriage of fifteen years crumbling, Karen had taken an overdose of sleeping pills. Her husband found her in time and her life was saved, but it was clear that their marriage was dead. During her stay in hospital, she decided she would leave the kids with Brian and move in with a friend. But when she was discharged five days later, she came home to find her husband living in their house with another woman. Her outrage galvanized her will and changed her plans: she took possession of the children, banished Brian from their lives, and went out and found a new job.

In moving to a new neighbourhood, Karen hoped to distance herself from the memories and to make a fresh start. But there were problems. Her job turned sour and she had quit; and although she was able to collect unemployment insurance, she felt lonely and
blue. Then Gary started refusing to go to school and having anxiety attacks and tantrums. She felt she couldn't even look for a job, never mind take one, because this would entail her being gone from the house all day. What if he came home from school at noon and refused to go back? How could she ensure that nothing happened if she wasn't there to supervise? As Gary became harder to handle, Karen began calling Brian, asking for help in controlling him. Father, talking to his son over the phone, could get him to do things—such as to go school—which mother, in person, could not.

As Karen and Gary became more alienated from one another, she and Sandra bonded together ever more tightly. Feeling isolated from her adult friends, Karen looked to her daughter for support and companionship, and the girl responded by being very very good. In their first session with me Sandra reached out and took Karen's hand at a time when her mother was upset, but she did it in such a way that it looked like a request for comfort rather than an offer of support. No doubt it was both.

Who or what needed changing? According to Karen, the problem was Gary. If he would go to school and obey her and not be so depressed, she would be able to find work and get back on her feet. As it was, she felt trapped, sure that the boy would sabotage any move on her part to get a job. Not only did she see him off in the morning and meet him when he came home at the end of the day, but because he had no friends at school and was lonely during the noon hour, she had started letting him come home for lunch. Unfortunately, this entailed a second confrontation when it was time for him to return to the school for afternoon classes, and thus only
made matters worse. Karen, at her wits end, wanted help for her son so that he would go to school without a major battle, would make friends, and would start feeling better about himself.

From the perspective outlined in this thesis, it would have been a mistake to work with Gary alone. Karen's identification of her son as "the problem" had the potential of creating a schism, a dichotomous distinction between health and sickness which could freeze the family's process of adapting to its new organization and circumstances (i.e., as a single-parent family in a new community). Viewed systemically, the boy's behaviour was an integral part of the story of the family; it would thus not have been helpful to reinforce the view that he was somehow "different" or "distinct" by agreeing to see him individually. Since change is relational, separations, to be healthy, must be subsumed within the knot of complementarity:

**Connection / (connection/separation)**

Without connections there can be no completions, only the decay of alienation. As was discussed in Chapter 3, the desire for people or situations to be different than they are is a kind of denial, a stumbling block in the way of completion and change. In order to turn this around, Gary needed to be accepted by his family and himself. I thus set out to re-score his behaviour as contrapuntal to that of his sister's.

Brian had told the children about their mother's suicide attempt when she was still in the hospital, and although Karen had since discussed it openly and offered reassurances, both children continued to worry about her health, her state of mind, and the potential of her trying again. Also, Gary had been told by friends of
the family that he was now the "man" of the house, and should look out for his mom. Karen dismissed this as inappropriate, insisting that as he was only eleven, he shouldn't be burdened with adult responsibilities. Nevertheless, Gary would lecture her about smoking, and complain that he didn't have more say in how their home was run. Despite her problems with him, Karen viewed her son as a sensitive, creative child who was wise beyond his years.

This background, these "chord changes," provided a pattern on which I could improvise. I suggested that both children were seriously concerned about their mother and were each helping her and the family in their own unique way. Sandra was helping by being good and being her mother's companion, while Gary was finding all manner of creative means to stay with her during the day so she wouldn't be too lonely in their new community. I predicted that he probably wouldn't find friends until he was sure that his mother could manage without him. Once he knew deep down that his mom was okay, he would find himself wanting to play with friends at noon and after school. But right now the "wise" part of him knew that his mother needed him at home to help her through this difficult period. His behaviour was not "bad," it was protective. Similarly, Sandra would no doubt continue being better behaved than most girls her age and would be like a friend to her mom for as long as she thought Karen needed her to do this.

This positive connoting of Gary's behaviour served to re-score the relationships in the family, just as, without changing any notes
in the scale, the key of C minor can be shifted to Eb major. The important distinction (the difference which made a difference) was no longer drawn between the children—one good, the other bad, one healthy, the other sick—but between them and their mother. In looking after her, they had taken on parenting roles. This was not criticized, but interpreted as a helpful phase in the adaptation of the family. When this phase was complete, when Karen could convince her children that she was in no danger of attempting suicide, Gary would return to school and Sandra would be able act her age.

The theme of protection was repeated and elaborated over the course of three or four sessions, and new information was woven into the developing story. For example, it came to light that Sandra had been sleeping in her mother's bed virtually every night since the separation. Karen had apparently tried to stop her, but the girl would climb in after her mom had gone to sleep. This fit very well into the rescoped pattern—I suggested that the children were engaged in around the clock supervision of their mother. Gary did the day shift and Sandra the night shift.

Then one day in November, everything shifted. Change came quickly and unexpectedly. Karen received a call from the Unemployment Insurance Commission, informing her that they had made an error in allowing her claim, and since she had technically not been eligible to receive benefits, she would have to pay a significant amount of money back to them. She was devastated.

13 The key signatures of both C minor and Eb major are identical—they each have three flats.
Feeling hopeless and lost, she once again considered suicide as a way out.

Four hours later a friend happened to phone her and offer her a job. A month earlier she had turned down a similar opportunity. This time she took it. She started working the next day. And when I saw her two weeks later everything had changed. Gary was going to school without a fuss, and he had made some friends. He had started whistling around the house, and was laughing for the first time in months. Sandra's behaviour, on the other hand, had gotten somewhat "worse." She was complaining about Gary's whistling and had started picking on him. In the course of the next four months, Karen took responsibility for parenting and disciplining the children and stopped turning to Brian for help in resolving disputes. She successfully settled Sandra in her own bed, continued to enjoy and thrive in her job, introduced changes in her relationship with her parents, and began a relationship with a new man.

I asked her once to talk about the four hours between the first and second phone call, the time when she had thought seriously of suicide. She had phoned her brother and cried and talked to him for quite awhile. And oh yes, Gary happened to be home from school that day.

Haley (1976) would no doubt describe my bridging (what he would call "interventions") as "paradoxical." He explains the raison d'être of paradoxical tasks this way:

The directives up to this point have been the kind a therapist gives when he wants the family members to do what he says. There is another kind of directive in which he wants the members to resist him so that they will change. These tasks may seem paradoxical to family members because the
therapist has told them he wants to help them change but at the same time he is asking them not to change.

This approach is based on the idea [that] some families who come for help are resistant to help offered. The members are very good at getting a therapist to try and fail. . . .

When the approach is successful, the family members achieve the goal of the therapy to prove to the therapist that they are as good as other people. They "spontaneously" change. (pp. 67-69)

However, it should be obvious from the model of recursive change developed in this thesis—and from the details of the case history—that "resistance" is neither necessary nor adequate in accounting for transformation. Bateson (1977) says that "if our explanations or our understanding of the universe is in some sense to match that universe, or model it, and if the universe is recursive, then our explanations and our logics must also be fundamentally recursive" (p. 242). Similarly, if our explanations of change in family systems are to accord with the cybernetic organization of the relationships, then this model too must be fundamentally recursive.

To "process the hide" of a system, the therapist must act with wu wei, with an attunement to the process of connection and cyclic completion.

When the family first came in for counselling, Karen had yet to complete her separation with Brian. Unable to "control" Gary, she needed her husband to intervene; her phone calls to him helped to maintain a complementary pattern that had characterized their marriage for many years: an incompetent and helpless Karen in relation to an exasperated and condescending Brian. Still bound by "negative intimacy" (Ricci, 1986) she wouldn't let go.

Everything fell apart when Karen got the phone call from U.I.C., and she, as they say in Alcoholics Anonymous, "hit bottom."
This could have ended in her death, but fortunately the crumbling, the dispersion, occurred within the context of Connection: she was able to reach and talk to her brother on the phone, and, perhaps more importantly, she had her son, her "watchman" with her. As part of the complementary knot of "Life / (life/death)," this chen phase of dispersion could then become an act of completion, and hence the beginning of liberation: "completion holds change" (Hex. 16, FINAL 6, Yu and Flemons, 1983, p. 76).

Efran and Lukens (1985), writing about Maturna's theory of structure determinism (1980), assert that "you do not change organisms—you design an environment in which organisms thrive, respond, and change themselves" (p. 23). The counselling did not "cause" change, if anything it helped to establish a context of flowing connection, within which change could occur. Gary's behavior was re-scored as protective, and indeed—when it really mattered—it was.

Yin and yang transform into each other (see Figs. 2 & 7) not by being told they have to, nor by being reasoned with or tricked or forced into becoming something other than they already are. They change by going to their own extreme, completing themselves into the other. Rather than demand that Karen take responsibility for herself and her children and that she stop letting them look after her, I encouraged the relationships to continue; without the rigidity and schisms engendered by denial (see Fig. 9)—with acceptance—the system was able to become whole, to heal itself.

Therapy can be described as the art of helping a system change its Mind. As part of the therapeutic story, it is critical for
counsellors to match not only our observations and explanations, but also our actions to the circuity, to the tao of the system. Otherwise we risk splintering the system still further, with the fissures engendered by conscious intent.

What is serious is the crosscutting of the circuity of the mind. If, as we must believe, the total mind is an integrated network (of propositions, images, processes, neural pathology, or what have you—according to what scientific language you prefer to use), and if the content of consciousness is only a sampling of different parts and localities in this network; then, inevitably, the conscious view of the network as a whole is a monstrous denial of the integration of that whole. From the cutting of consciousness, what appears above the surface is arcs of circuits instead of either the complete circuits or the larger complete circuits of circuits. (Bateson, 1972, p. 145)

The only wise way of acting—i.e., with "a sense or recognition of the fact of circuity" (Bateson, p. 146)—is with the sensitivity, fullness, and spontaneity of wu wei.
Appendix 1

Sample Hexagram

PRoIMARY TEXT

The Matriarch
woman's force

Commentary

The Matriarch
"concerns..." adaptive concords with decisive
don't engage with a grappling woman—
can't grow together

heaven and earth concord with each other—
defined things interrelate and glow

decisive concords with centered attunement—
all under heaven makes great strides

*the time in The Matriarch is significant*
wind under heaven—the Matriarch
gives direction
speaks to the four regions

held by a metal chock
will be auspicious
has destination sees pitfalls
a female pig stamps and paws
COMMENT
held by a metal chock—
the tao of adaptive leads

kitchen has fish
no dissonance
fruitless for guests
COMMENT
kitchen has fish—
signifies not reaching out to guests

skinned buttocks
walks with a dragging gait
danger sharpens
no great dissonance
COMMENT
walks with a dragging gait—
waks without being led

kitchen has no fish
precarious
COMMENT
no fish precarious—
far from the people
medlar leaves wrap a melon
embodied light
a falling star

COMMENT
embodied light—
attunes to the center
a falling star—
heart's intent doesn't abandon the direction

the matriarch with horns
adverse no dissonance

COMMENT
the matriarch with horns—
above exhausted adverse

There are a total of sixty-four hexagrams; this is the forty-fourth.
This is the title of the hexagram in archaic Chinese. It is a picture of a woman ruler. There are only a few references in Chinese history books about a legendary matriarchy before recorded time. It is said to have been a democracy without class distinctions, where males were given away in marriage and children belonged to the clan which bore their mother's name.
Each hexagram is composed of yang and/or yin lines. It is created by the combination of two trigrams, in this case Sun below, and Ch'ien above (see Figure 4).
This is a transliteration of the Chinese title using the Wade system.
This is our translation of the Chinese title.
Unlike the section headings to follow—i.e., the COMMENTARY and the PRIMARY IMAGE—the PRIMARY TEXT has no Chinese equivalent. This section, which is found in every hexagram, is probably the oldest layer of the I Ching, and it is always placed at the beginning of the hexagram. We gave it a name which would reflect this, and would allow us to reference it in footnotes. Wilhelm refers to it as THE JUDGMENT.
The title of the hexagram is almost always the first word(s) to appear in the text. It is the theme or context for the hexagram as a whole, and is thus set to the left of the other lines.
These two phrases share a common border, and should thus be read paratactically. Quite often this section will contain one or more words from the PRIMARY TEXT of Hexagram 1.
9 In some versions of the Chinese text, the last word, "woman" 女, is not present. The third word, 取, has a number of possible meanings, ranging from "sharing," to "taking," to "war-mongering." After cross-referencing and considering the context and commentary, we translated it as "grappling."

10 The commentary, traditionally attributed directly to Confucius, is more likely the work of his students. It quotes the primary text (using the same type-face) and then explicates part of the meaning (in italics).

11 In this (but not in all) hexagrams, the title is quoted, and is then followed by a synonym (designated by the use of quotation marks).

12 Dashes are used throughout the translation. Generally they indicate that the phrase following is a comment or judgment on the one preceding it.

13 "Adaptive" and "decisive" are used as noun-forms throughout the translation.

14 This is a quote from the primary text.

15 Spaces such as this are used in the commentary to set apart groups of phrases.

16 The commentary quite often concludes with a statement such as this. As it refers to the whole of this section, it shares a common border with the title.

17 The primary image is also attributed to the pen of Confucius. There is usually some reference made to the action of the exemplar (in this case to the ruler), and this indeed is very Confucian. But the first phrase of this section may well date from an earlier time. See note 18.

18 This phrase refers to the combination of trigrams which give rise to the hexagram. Sun, wind, is below Ch'ien, heaven (see Figure 4). Since trigrams predate hexagrams, this text may be the historical bridge between the two.

19 i.e., the matriarch.

20 The original Chinese has no such heading for this section. As in the primary text, we have used the designation "primary images" to facilitate references to it.

21 Initial 6 初 六 refers to the yin (6) — — line in the first or bottom stage. Were this a yang (9) — — line, it would read "initial 9" 初 九.

22 Positioned properly, a chock can withhold a tremendous force.

23 These images share a common border, and should thus be read paratactically. Because the relationship between them is not fixed syntactically, there are many possible ways of reading and interpreting them. See note 25.

24 This space indicates the paratactic relation between "has destination" and "sees pitfalls." Generally, phrases which share the
same line are taken together when relating them to images on other lines.

25 The pig is probably restrained in some way. Compare this to the restraining power of the chock.

26 The COMMENT, also attributed to Confucius, works much the same way as the COMMENTARY. A portion of the LINE IMAGE is quoted (using the same type-face) and then interpreted (in italics).

27 9/2 refers to the yang (9) line in the second stage, counting from the bottom. Were this a yin (6) line, it would read "6/2."

28 The pronouncement "no dissonance" occurs often in the I Ching. It can be taken as an assessment of the situation in relation to the Tao. Wilhelm translates this phrase as "no blame."

29 Normally guests would be served first.

30 9/3 : a yang (9) line in the third position. If it were a yin (6) line, it would read "6/3."

31 This is also a frequent pronouncement in the book. The character is a picture of a sharpening stone:

32 9/4 : a yang (9) line in the fourth position. If it were a yin (6) line, it would read "6/4."

33 cf. to the image in 9/2: "kitchen has fish."

34 9/5 : a yang (9) line in the fifth position. If it were a yin (6) line, it would read "6/5."

35 Probably as a means of preserving the fruit.

36 Just as the melon is enveloped, so too is the light: the power, the essence, is inside. This is the balance of the Matriarch.

37 The COMMENT emphasises the line position by repeating it: 9/5.

38 FINAL literally means "top," or "highest" "nine" (i.e., "yang line"). Were it a yin (6) line, it would read "FINAL 6."

39 Probably symbolic of aggression. The inner balance of the previous line has been lost.
Appendix 2

Comparison of the Frequencies of Equal Tempered and Natural Fifth Scales

<table>
<thead>
<tr>
<th>Pitch</th>
<th>Freq. (in hertz) of Equal Tempered Scale</th>
<th>Freq. (in hertz) of Perfect 5th Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>261.6256</td>
<td>261.6256</td>
</tr>
<tr>
<td>C#</td>
<td>277.1826</td>
<td>279.3824</td>
</tr>
<tr>
<td>D</td>
<td>293.6648</td>
<td>294.3288</td>
</tr>
<tr>
<td>D#</td>
<td>311.1270</td>
<td>314.3052</td>
</tr>
<tr>
<td>E</td>
<td>329.6276</td>
<td>331.1199</td>
</tr>
<tr>
<td>F</td>
<td>349.2282</td>
<td>353.5934</td>
</tr>
<tr>
<td>F#</td>
<td>369.9944</td>
<td>372.5099</td>
</tr>
<tr>
<td>G</td>
<td>391.9954</td>
<td>392.4384</td>
</tr>
<tr>
<td>G#</td>
<td>415.3047</td>
<td>419.0736</td>
</tr>
<tr>
<td>A</td>
<td>440.0000</td>
<td>441.4932</td>
</tr>
<tr>
<td>A#</td>
<td>466.1638</td>
<td>471.4578</td>
</tr>
<tr>
<td>B</td>
<td>493.8833</td>
<td>496.6799</td>
</tr>
<tr>
<td>C</td>
<td>523.2511</td>
<td>530.3901</td>
</tr>
</tbody>
</table>
References


BIOGRAPHICAL INFORMATION

NAME: Douglas Garfield Flemons

MAILING ADDRESS: 6 Willow Crescent, S.W.
Calgary, Alberta
Canada  T3C 2Z6

PLACE AND DATE OF BIRTH: Calgary, Alberta
August 8, 1956.

EDUCATION:

University of Calgary
1974 — 1976

Simon Fraser University
1976 — 1980
Bachelor of General Studies
Conferred 1981

University of British Columbia
1984 — 1986
Master of Arts in Counselling Psychology

POSITIONS HELD:

Freelance Documentary Producer
1981 — Present

PUBLICATIONS:

Simon Fraser University, Faculty of Interdisciplinary Studies,
Burnaby. (In collaboration with Titus Yü)

(1985). The hump in the gaussian curve: Wandering through

(In press). Zucchini mush as a misguided way of knowing.
*Canadian Journal of Counselling*.

AWARDS:

1977 — 1980  S.F.U. Open Scholarships
1985 — 1986  U.B.C. Graduate Fellowship
1986 (fall)  U.B.C. Graduate Fellowship (renewal)