Personality Dynamics

Key Concepts in Reversal Theory

Michael J. Apter

APTER
INTERNATIONAL

Personality dynamics

KEY CONCEPTS
IN REVERSAL THEORY

Telic
Serious

Conformist
Conforming

Mastery

Autic
Self

Alloic
Other

Sympathy

Negativistic
Rebellious

Paratelic
Playful

The Eight Motivational States

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ONE

INTRODUCTION

What is reversal theory? The simple answer is that it is a general approach to psychology that starts from the identification of certain *motivational states* that inform all our experiences and actions. These states, taken together, make up a structure that has been totally overlooked in modern psychology.

A motivational state is a way of experiencing the world based on a fundamental motive or value. Each state provides a kind of internal context for our actions. The basic idea is that we adopt different motivational states at different moments as we go about our daily lives. This means that we are different kinds of people at different times: we are inherently fluid and inconsistent. The result is that, in a very real sense, we differ from ourselves as well as from other people, as these special 'moods' come and go. The hallmark of human nature is its changeability. To study personality, therefore, we need to study personality dynamics.

This new level of analysis adds color to the more traditional views of cognitive and behaviorist psychology, allowing the world of psychology to take on a different appearance. People's experience becomes multicolored, and their color combinations are seen to be continually shifting and recombining.

In looking at things in this way, reversal theory also identifies a new principle of change, that of *reversal* between opposing motivational states. This kind of change is one that has previously been missed in psychological research, which has concentrated on the kinds of one-way change involved in learning and in childhood development.

Some characteristics of reversal theory

Once we start looking at mental life in terms of motivational states and reversals, a whole new perspective on psychology opens up.

New patterns become evident wherever we look, whether our interest is in family relations, violence, humor, risk-taking, leadership, sport, or almost any other topic. As a result, reversal theory is a theory of unusual generality that can act to integrate seemingly unrelated topics into a single overarching and comprehensive framework.

Reversal theory also provides new answers to some of the most venerable questions in psychology. Among these are such questions as:

- What are the basic motives in human beings?
- How are we to describe personality?
- How do emotions relate to each other?
- Is there a pattern underlying different types of mental disorder?
- In what kinds of ways do people relate to each other?

Perhaps more significant is that reversal theory also illuminates a set of *new* questions. These are questions that have been disregarded by psychologists over the years and yet constitute puzzles to non-psychologists. Among them are such questions as:

- Why do people do things that serve no obvious biological purpose?
- Why is it that sometimes people voluntarily do unnecessary things that might harm them?
- How is it that unpleasant emotions can under some circumstances actually be enjoyed?
- Why do people sometimes enjoy doing things that are forbidden?
- Why does one sometimes dislike things that at other times one loves (and vice-versa)?
- Why can one never be happy for very long?

It should be emphasized that, although intellectually provocative, the theory has, from its beginnings in a child guidance clinic, always had a practical orientation. It has been applied not only by therapists but also by health counselors, sports coaches and management consultants - all of whom have found that it provides a powerful way of structuring their interventions.

The theory has also, during its development, been tested and generally supported by evidence of many kinds. This includes clinical evidence, as well as evidence from the psychological (and

psychophysiological) laboratory and from the use of psychometric tests. This evidence comes from many different cultures and countries.

The general approach adopted by reversal theory is *phenomenological* in the technical philosophical sense, in that it is primarily concerned with the subjective meanings that people assign to the world. From the reversal theory point of view, these meanings include the meanings that people use to make sense of their situations, and their actions in the context of those situations. It is in this respect an "inside-out" approach, meaning that overt behavior, performance and relationships with others, are to be understood in terms of these "inner" processes. That is, reversal theory starts on the inside and works outwards.

Background

The seminal ideas of reversal theory were proposed originally by the English psychiatrist, Dr. K.C.P. Smith, together with the present writer, in the mid nineteen seventies. Subsequently, and in collaboration with various colleagues, I developed these ideas into the fully-fledged theory that will be presented here. The first major presentation of the theory was in the book *"The Experience of Motivation"* (Apter, 1982).

In the process of developing, testing and using the theory, a worldwide network of researchers and practitioners has evolved into the Reversal Theory Society. Among other things, this society has, since 1983, organized a biennial international conference. Other one-off conferences have also been organized from time to time, especially in the areas of sport and of management consultancy.

In 1998, a management consultancy company was set up – Apter International – to apply the ideas of reversal theory to the world of organizations. (Its web site is at: www.apterinternational.com)

This book

There are a number of books on reversal theory which deal with the theory as a whole, or with some particular use of it, in great detail. The aim of the present book is rather different: it is to provide a short introduction that gives a manageable overview of the theory. The reader who wishes to learn more may then follow up by consulting the various references cited in the text.

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Every chapter that follows (with the exception of the final chapter) will take an essential reversal theory concept and use it as its central organizing principle. Specifically, the chapters will deal in turn with five key reversal theory concepts:

- Metamotivation
- Reversal
- Bistability
- Dominance
- Synergy

Other related reversal theory concepts will also be introduced in each chapter. Each of these thematic chapters will not only introduce the main concept, and other related concepts, but also indicate some of the evidence that supports it and discuss its practical application. It should be borne in mind that breaking the theory up in this way is rather artificial, since the theory is essentially holistic: the concepts are interdependent in the sense that every concept in some way presupposes and implies every other concept.

Although references will be made to papers describing both research and applications, these references will not be comprehensive, but rather a sampling of the most relevant publications. A complete bibliography of the theory will, however, be found on the Reversal Theory Society web site at: www.reversaltheory.org. At the end of the present book, there is also a listing of all the books that have been published on the theory. Among these, the most detailed and comprehensive is Apter (2001) which also includes a bibliography that was complete up until the time of its publication.

In what follows, when a reversal theory technical term is introduced for the first time it will be printed in bold. Key words that need emphasis, but that are not technical terms, will be put in italics.

TWO

METAMOTIVATION

Reversal theory is more complex than many other psychological theories. But at its heart is a relatively simple structure that ultimately informs every reversal theory study and application. This structure consists of four pairs of opposite mental states, as shown in the Frontispiece to this book. These states are referred to as **motivational states**, because each one is based on a particular motive. More technically, for reasons that will shortly become apparent, they are referred to as **metamotivational states.**

Reversal theory proposes that one state from each of the four pairs will be active at any given time. Switches will then occur from time to time from one state to the other within each of these pairs. The opposite states in a pair cannot function at the same time. Rather, they must alternate because they are incompatible with each other and represent opposite ways of seeing the world. More fundamentally, they embody opposite values.

The eight states

If we think about conscious experience we know that there is an infinity of things that can be experienced, and that a huge variety of these things come in and out of awareness at different times. At one moment I may be experiencing the coffee that I am drinking, at another what a friend is saying to me, and, at yet another, the book I am reading. But none of these are essential to conscious experience itself: for example, I can still be conscious even when I am not experiencing the taste of coffee or talking to my friend. There are however certain aspects of consciousness which are always and unavoidably present during waking-life. Without them we could not really be said to have a normal mental life at all. In this respect, they are essential aspects of the very fabric of normal subjective experience. Reversal theory suggests that there are

four of these, each one being necessarily present in our awareness, at least to some degree, at all times. They are referred to in reversal theory as **"domains."** For example, as we shall see in a moment, we are always aware of means-and-ends, and so this constitutes a domain.

It is in these domains that the pairs of metamotivational states operate - one pair to each domain. Thus in the Frontispiece, each domain is represented by an opposite pair of states. What this means - and this is the central idea in reversal theory - is that each of these aspects of experience come in two different and contrasting versions between which people alternate under different conditions. If a domain is like a coin, then the metamotivational states that relate to this domain are like the two sides of the coin, only one of which can normally show its face at a time. It is a strange-seeming idea the first time that one encounters it, but it helps to make sense of the complexities, contradictions and paradoxes of subjective experience. And, as we shall see, there is evidence to support it.

Let us look at each domain in turn.

Telic and Paratelic

The first domain relates to *means-and-ends.* That is, we are always conscious of what we are doing, and why we are doing it. To put this another way, we are at all times aware of our goal, and of the activity that we are undertaking with the aim of achieving the goal (or at least making progress towards it). In this sense our experience is suffused with purposefulness, and this purposefulness is one of the things that gives our life meaning at a given moment. For example, at this moment you, the reader, are probably experiencing the goal of trying to understand reversal theory, and you are experiencing the means of doing so as the act of reading this book.

The way that such purposefulness is usually described by psychologists is to say that the individual is confronted with some goal and then adopts whatever activity seems appropriate to achieve the goal. The goal has priority and the activity is subsidiary to it. One needs to be at a meeting in another city, and therefore one takes a train to get there. A spouse's birthday is coming up, and therefore one goes shopping for a present. One's lawn in full of weeds and therefore one puts down weed killer.

But there is another, opposite way of experiencing this relationship that has been largely overlooked in psychology. This arises

when the activity has priority and the goal is subsidiary. In this case, the aim is to enjoy the activity itself, and the goal is there as a way of supporting this: as an excuse for the activity, a way of organizing it, or a way of enhancing the pleasure. Here, in a sense, the individual chooses the activity and then accepts and makes use of any goal that might come with it. That is, the activity is pursued for its own sake rather than for the sake of the goal. Thus one might travel in order to enjoy the travelling itself – which is what we do as tourists – rather than because we are required to be in a particular place at a particular time. Or one might go shopping with no special purpose in mind, or with some arbitrary purpose ("I could do with a new pullover"). Here are some other examples where the pleasure of the activity itself is "what it is all about."

- Some people run because they enjoy the activity of running in itself

- Most people go to the theatre in order to be entertained

- Some children (and adults) enjoy building snowmen

- Many people do crossword puzzles just for the fun of it

The first of these ways of experiencing things is defined in reversal theory as the **telic state**, from the ancient Greek work "telos" meaning an end. The second is called the **paratelic state**, the word paratelic being derived by adding the Greek suffix para, meaning "alongside." This means that there are two, as it were, parallel and opposing motivational states that one can switch between.

If you want to know which state you are in at a given moment, ask yourself the simple question: would I rather this activity be over and done with, with the goal accomplished, or would I rather prolong it? For example, in playing a game like golf or tennis, one would probably be disappointed if the game finished early (for example through bad weather) even if your opponent agreed that you had won. The point of the goal of winning, in games of all kinds, is to increase the possibility for enjoyment. Thus in tennis it is more fun to score points than just to hit the ball backwards and forwards. In such cases the goal is really a means rather than an end, paradoxical as this may seem. If this is the case, then one is in the paratelic state.   On the other hand, for a

professional tennis player, focused on getting through to the next step of competition, the goal may be more important than the enjoyment of the game. When the goal is the driving priority, one is in the telic state. In this case one would rather have accomplished the goal than still be striving for it. The relationships that have just been described are summarized in this table:

	TELIC	PARATELIC
MEANS	Activity	Goal
ENDS	Goal	Activity

It might be objected that the same activity may have the potential to satisfy different ends e.g. may be both enjoyable *and* important. But the point is that at any one time the focus will be on one or the other aspect of experience – they cannot both be priorities. In one case (the telic), the goal is, as it were, the figure in perception with the possibility for enjoyment in the background. In the other case (the paratelic), the focus is on the immediate enjoyment, and in this case it is the goal that is in the background. We can then switch back and forth between these two ways of seeing things.

As with all of the motivational states identified in reversal theory, there is a certain style of action that goes with the state. Hence, these states can also be referred to as **motivational styles**. In the case of the telic state, this style of action can be referred to as "serious." It likes to plan, to do things that are significant, to look ahead and see the consequences of current actions. In the case of the paratelic state the style can be referred to as "playful." By playful here is not necessarily meant being childish or messing around (although these would be among the ways that one could be in this state) but of wanting to do things for their own sakes. In the paratelic state one wants to take joy in immediate sensations, feelings, and thoughts and to allow for the possibility of spontaneity.

Each state also represents a certain basic value. The telic state may be said to embody the value of achievement, while the paratelic state embodies that of enjoyment. These are, in each case, the underlying motives that lead to the world being seen in a particular way and acted on with a particular style.

We can now begin to see why the states are called *meta*motivational.   This is because they are different ways of

interpreting, and therefore experiencing, something motivational – for example, means and ends. (The word "meta" implies a higher level that is interpreting a lower level, as in, for example, the word "metacommunication.")

Note also that these states, as motivational, are about what one *wants*, not necessarily about what one actually experiences. So in the telic state one wants to achieve an important goal, but it may turn out at a given time that one can find no goal of sufficient importance to be worth pursuing. Or perhaps one has an important goal but is frustrated in moving towards it. Likewise, in the paratelic state, although one wants enjoyment, one might not at a given time actually find something to do that is enjoyable in itself.

To illustrate these two states further, Table 2.1 at the end of this chapter gives some examples of things that one might say when one is in each of the states. The table divides these statements in those that represent pleasant ways of being in each state, and those that represent unpleasant ways. This reminds us that there is nothing intrinsically good or bad about each state.

Conformist and Negativistic

The second domain relates to *rules*, where the term "rule" is to be understood very generally as any kind of constraint, expectation, convention or routine that directs a person and delineates what he or she should do in a given situation. The two states of this domain are the conformist and negativistic states.

Much of the time we want to follow rules, since they give life structure and meaning, and help us to feel that we belong in situations where we know what is expected of us – which is most situations that we come across in our daily lives. Furthermore, when we know what we are supposed to do, we can get on with it and be efficient and effective. (Imagine how much time we would lose if we had to relearn what we were supposed to be doing in each situation.) We refer to this state as the **conformist state**.

On the other hand, there are times when we feel rules to be restricting and confining, unfair and repressive. At such times we want to break free of the rules, do things in different ways, do things which are unfashionable, frowned on, unexpected, even commit acts that are immoral, aggressive, forbidden or just plain "bad." We can call this the **negativistic state**.

There are many ways of being in the negativistic state: mischievous, angry, nonconformist, confrontational, offensive, naughty, perverse, innovative, disorderly, dissident, critical, impish, stubborn, difficult, oppositional, or exasperating. What they have in common is that they all involve a feeling of needing to do something that one should not normally do, of wanting to break free of constraints - whether these be moral, social or legal. Examples of blatant behaviors that might be associated with the negativistic state include drawing graffiti, going on protest marches, stealing road signs, creating computer viruses, swearing in polite company, driving too fast, disturbing others by playing music too loud, deliberately smoking in public places. But it should not be thought that the negativistic state is necessarily "negative." In politics it plays an essential role in safeguarding freedom, in science and the arts it underlies creativity, in industry it has a crucial part to play in initiating and maintaining change. Everywhere it opposes unfairness.

In terms of motivational style, the conformist style is essentially adaptive. When one exhibits this style one wants to fit in, to do what one is supposed to do, to go along with "the way that things are done around here," and so on. By contrast, the style of the negativistic state is rebellious, challenging and confrontational. In terms of underlying values, the conformist state represents the value of duty, while the negativistic state represents the value of freedom.

In table 2.2, at the end of this chapter, you will find more examples of statements of the kind that people might make in different states, this time illustrating the conformist and negativistic states in both pleasant and unpleasant form.

Mastery and Sympathy

The third domain is about our experience of the way in which we interact with other persons, things and situations. It is referred to as the *interaction* domain, and has two states: mastery and sympathy.

In this domain we have two ways of experiencing interactions. The first sees them in terms of control, so that if one *gains* from an interaction one sees oneself as strong, tough, competent, able, and so on. On the other hand, if one *loses* from an interaction one sees oneself as weak, feeble or incompetent. This state is referred to in reversal theory as the **mastery state**. The term 'mastery' implies that one wants to be in control, whether this be over people, tasks, ideas, machinery or anything

else that one can interact with. The transactions involved can take many different forms – words, money, objects, blows, gestures, and so on.

The second way of experiencing this domain is in terms of caring: of wanting to develop close and nurturing relationships, to be tender and sensitive. In this case, if one *gains* from a transaction one feels liked (or even loved) rather than powerful, and if one *loses* from a transaction one feels personally "let down" and disappointed. We can call this the **sympathy state**.

All this is summarized in the following table.

TRANSACTION OUTCOME	**MASTERY**	**SYMPATHY**
Gaining	I take (I am strong)	I am given (I am liked)
Losing	I yield up (I am weak)	I am not given (I am not liked)

Another way of contrasting these two states is as follows: if one gains from a transaction in the mastery state, one feels that one has taken and that the other has yielded it up. If one gains in the sympathy state, one feels that one has been given and that the other has done the giving.

The motivational style of the mastery state is a masterful, controlling one, whereas the style of the sympathy state is, or tries to be, affectionate and sympathetic. While the first tends to become detached, the second one wants to get close to people and even be intimate. While the first tends to dehumanize, the second tends to personalize. In terms of values, the underlying value of the mastery state is power, while that of the sympathy state is love. Again, these states are illustrated with some examples of pleasant and unpleasant versions of each, as shown in Table 2.3 at the end of this chapter.

Autic and Alloic

Finally, the fourth domain of experience is that of *orientations* – on whose behalf we are doing what we are doing. The two states of this domain are the autic (self) and alloic (other) states.

Much of the time, in the course of daily life, we are doing things for ourselves rather than for others. That is, our desire is to benefit personally from what we do. We want to have more money, an enhanced reputation, greater skill - or just get through the day without too much trouble. We can call this the **autic state**, from the ancient

Greek "autos" meaning self. Here we judge the outcome of our actions in terms of how far we benefit personally.

But there are other times when we are genuinely concerned with others, and put them first – whether these be our children, the teams we belong to, friends in need, colleagues who ask for help, or causes we are committed to. We can call this the **alloic state**, from the ancient Greek "allos" meaning other. Here we judge the outcome of our actions in terms of how far such actions benefit the "others" about whom we are concerned at the time. To be sure, we get personal pleasure if these "others" are doing well. But in this case our pleasure (or displeasure) comes in this indirect fashion rather than directly. Another way of putting this is to say that in the alloic state we identify with others – which does not happen in the autic state. Through this identification, we gain vicarious pleasure and pain from what happens to those with whom we identify. A frequent way in which this occurs for most of us is in watching television or going to the movies, where our pleasure and pain comes from identifying with the characters on the screen.

Although, for simplicity, the sympathy and mastery states were described in the last section largely in autic terms, it can now be seen that they could equally have been described in alloic terms. One can want to care for others (alloic sympathy) as well as be cared for (autic sympathy), and one can want others to have power and feel masterful (alloic mastery) as well as wanting these things for oneself (autic mastery).

We can characterize the autic and alloic styles, respectively, as self-oriented and other-oriented. The underlying value of the first is that of individualism, while that of the second may be said to be transcendence – of going beyond oneself in some way. The effect is that what is pleasant in the autic state becomes unpleasant in the alloic state, and vice-versa. So, where one wants to feel personally powerful when one is in the autic version of the mastery state, the alloic version prefers to feel vicarious power. For example, in the alloic and mastery states one might enjoy the increasing skill of someone one is teaching, exult in being part of a winning baseball team, be gratified that a political candidate one voted for was elected. One can even enjoy the mastery of another at one's own expense – for instance being beaten at chess by a child you have been teaching to play the game. And where one wants to feel loved in the autic version of the sympathy state, in the alloic version of this state one prefers to feel loving, and to care for others. Table 2.4 at

the end of this chapter illustrates these states, as was done for previous pairs of states, by means of statements that might be taken to represent pleasant and unpleasant ways of being in each state.

The whole picture

The way that all of these eight states relate to each other is summarized in the Frontispiece of this book, which also indicates the style that relates to each state. This diagram constitutes the general ground plan for the theory.

You will probably need to refer to this diagram quite often as you read the rest of this book.

Active states come in combinations that have their own distinctive features. We have just discussed this in terms of the different combinations of mastery, sympathy, autic and alloic. But it also applies to other state combinations. For example, when the paratelic state is combined with the conformist state, immediate pleasure will tend to be sought from doing something according to the rules (e.g. playing a game). On the other hand, when the paratelic state is combined with the negativistic state, the pleasure may come from playfully doing something one should not do (e.g. being mischievous in some way).

Everyday activities will tend to involve certain combinations of states - although these will be likely to differ as between different people or the same person at different times. For example, being in a pub or bar is likely to be associated for most people with the paratelic and sympathy states of mind, going to the dentist with the telic, sympathy and autic states of mind, and so on.

Metamotivation in action

As we confront different situations during our daily round of obligations and opportunities, we tend to **reverse** in terms of one or another of these opposites, so that our mental lives are a kind of ever-changing kaleidoscope. If we see something as unfair we tend to reverse into the negativistic state. If we see someone as vulnerable (e.g. a child) we might well reverse into the alloic and sympathy states if these are not already active. If we feel suddenly threatened by something, then this might occasion a reversal into the telic state. But sometimes we reverse even in the course of carrying through the same action. For example,

when you go shopping you might start out in the telic state of mind but switch at a certain point to the paratelic, and then later on reverse back. This all means that we are more like movies than still photos, even though the idea of a static trait (such as extraversion or introversion) still dominates in personality psychology. There is an ebb and flow in our lives than cannot be captured in trait terms.

We have already seen one reason why these states are called "metamotivations." Another is that they are clearly different from more biological motives such as the motives to eat and drink, and each metamotivation absorbs any ongoing biological motive to its own current purposes and ways of seeing the world. For example, the motive to eat can be assimilated in a different way to each of the metamotivational states:

- I am eating in order to be healthy and survive (telic).
- I am eating because I want to enjoy the flavors (paratelic).
- I am eating because this is what I am supposed to do at this moment (conformist).
- I am eating precisely because I am not supposed to do so at this moment (negativistic).
- I am eating because I want to be strong (mastery).
- I am eating because it is comforting to me (sympathy).
- I am eating for my own benefit (autic).
- I am eating because I want to be nice to my host (alloic).

In each case the biological is assimilated to the psychological. In this respect, the motives involved in metamotivation are psychological rather than biological: they are about satisfying the individual as a person rather than as a body. They are about helping the person to feel strong, looked after, etc. Both the biological and the psychological levels involve needs, but the needs are clearly of different kinds. In the biological case, the needs are for things that will aid survival; in the psychological case they are ultimately about such things as happiness and fulfillment.

In summary, then, each metamotivational state emerges from the underlying desire to pursue a particular value and involves a particular kind of style of interacting with the world. *The terms "metamotivational states" and "motivational styles" therefore refer to the same thing, albeit emphasizing different aspects*. (The words used here to represent styles are often used also to represent state, as in "serious state," etc.) The

way that this works out across all the pairs of states is summarized in the table below. To put this another way, a metamotivational state is like a computer program that is designed to achieve a certain goal, and in order to do so processes information in a certain way and uses certain tactics that are built into it. The pair of metamotivational states within the same domain are like two programs that process the same data, but for different purposes and in different ways.

STATE	STYLE	VALUE
Telic	Serious	Achievement
Paratelic	Playful	Enjoyment
Conformist	Conforming	Fitting in
Negativistic	Rebellious	Freedom
Mastery	Mastery	Power
Sympathy	Sympathy	Affection
Autic	Self-oriented	Individualism
Alloic	Other-oriented	Collectivism

Focus

Reversal theory has proposed that four states will be active and experienced at any given moment, one from each pair.   However, typically there will be a **focus** on one or two of these active states, with the others receding into the background and taking on a kind of supporting role. In other words, at a given moment, these focal states will be "top of mind." In different kinds of activities, the focus tends to be on different states and state combinations. Thus in playing sport the active and focal states are probably (for amateurs) paratelic and mastery, or (for professionals) telic and mastery. In giving someone a birthday present they are probably sympathy and alloic, engaging in a protest march they are probably negativistic and mastery.

Putting this in terms of the figure in the Frontispiece, there are therefore two kinds of change. There are switches between opposite circles, like telic and paratelic. These are reversals. Then there is a kind of spotlight that moves from one of the active circles to another around the rim, e.g. from highlighting telic to highlighting sympathy. The latter is a change of focus, not a reversal. In the illustration just given, both the telic and sympathy states remain active, but the individual becomes more aware of the sympathy than the telic state. (To complicate things, we

have to think of the spotlight as being able to "split" so that it can highlight more than one state at a given moment.)

State diaries

Here is someone (who is familiar with, and using, reversal theory), recollecting a previous day. Her day was probably more complex than this, with more changes of state, but this account gives a good feeling for the way people move between different focal states during the course of normal day-to-day life.

"A good part of Saturday morning was spent in the paratelic and autic state. I had a long, lazy bath, treating myself to a nice breakfast and then finishing with a coffee chit chatting with a friend mainly about things that concern me. This was fine because I really did not want to or have the reserves to give to anyone else. I was still feeling very tired from my work the previous day. I then spent a couple of quiet hours reflecting on how to develop reversal theory in my work. I noticed at that point I had moved into an alloic state. I thought of different clients and their needs and became excited in a paratelic state in which I could distinctly feel a creative surge happening. How wonderful! Being able to notice this gave me a further surge of creativity. I was absorbed by the possibility of opening some minds and hearts. Then I realized that a telic state had emerged, with some definite long-term goals in mind for one of the groups I am working with. Fascinating! After lunch, I had to get a haircut for my husband's sake. I experienced this in the telic and alloic states and I was concerned that he would be happy and like the haircut…my sympathy state. Then I had to do the weekly grocery shopping with him: something telic that he did not want to do. On the way, we started laughing and spontaneously began telling stupid jokes. He was more than happy and very pleasant throughout the entire situation. I found myself in the paratelic state. The evening was spent in the paratelic and alloic modes, mainly watching television. Before bed I spent some time reading inspirational material and at this point was in the autic state."

Motivational analysis

One can use reversal theory to explore which particular metamotivational states underlie given types of behavior. Typically, where the behavior is of a broad enough type, all the states can be involved in different people, so we would need to establish for a particular person, at a particular time, which subset of the eight states was actually involved. To take an example, why do people ever engage in risky behaviors?

- *Telic.* It is often necessary to take risks to accomplish important goals, even if one would prefer not to take those risks.
- *Paratelic.* Taking risks can be exciting, as in engaging in dangerous sports.
- *Conformist.* One could be obligated to take the risk - for example, soldiers cannot avoid putting themselves in harm's way when there is a war on.
- *Negativistic.* Breaking rules in order to feel free is often a risky activity.
- *Mastery.* Being courageous is a way of being in the mastery state, but being courageous involves putting oneself at risk.
- *Sympathy.* Taking steps towards intimacy always risks rejection and lowered self-esteem.
- *Autic.* Developing individual skills sometimes involves taking risks during the learning process, since by definition, one is still learning and can make errors. This relates particularly to such risky activities as learning to swim .
- *Alloic.* One can take risks on behalf of others - e.g. mother testing that a bottle of milk is not boiling hot by touching it against her arm.

Motivational analysis brings out the complexities of the relationship between metamotivational states and behaviors. In his book on soccer hooliganism, Kerr (1994) showed how various metamotivational states can be involved in different people, and drawn together into a complex web of needs and satisfactions as these 'fans' come together to generate this kind of violent behavior. Lindner & Kerr, (1999) documented the various different metamotivations that are linked

to sport participation in different people. One implication of such examples is '**behavioral indeterminacy'** (Apter 2001). This means that there is no simple one-to-one relationship between motivations and behaviors.

Metamotivational states are motivational

People writing about reversal theory, and even using it, sometimes miss the point that metamotivational states are about *desire*, not about performance or attention. Here are some examples of the kinds of errors that have been made from time to time:

- "He could not have been in the negativistic state because he did not act in such a way as to break rules." This misses the point that he might have *wanted* to break the rules, but decided that the sanctions were too great. In this erroneous statement, action has been used as the criterion for the negativistic state instead of desire.

- "Because when she plays the piano she is attending to her performance, she must be in the paratelic state." The problem here is that the paratelic state should not be defined in terms of how far one is attending to ongoing action but whether one is *looking to* get enjoyment from the ongoing action or using it primarily to obtain future goals. Again, it is a question of motivation not of behavior.

- "When playing chess he pays careful attention to what his opponent intends to do and therefore he must be in the alloic state." But the alloic state is about *wanting* the other person to do well, not attending to what that person is doing in order to make some personal gain. The issue here is: "Who do you want to benefit?" not "Who are you attending to?"

- "Since I was getting pleasure from seeing my friend succeed, I must have been in the autic state." The issue is not whether you are getting pleasure, but whether you are getting pleasure by directly benefiting from the situation yourself (autic) or by enjoying someone else benefiting (alloic).

- "The car salesman was sympathetic to our needs and was presumably in the sympathetic state." He may or may not have been, but because he acted sympathetically does not mean that he actually wanted to establish an intimate relationship with you. The chances are that he was in the mastery state but using sympathetic-seeming behavior in order to achieve power.

As these examples show, caution is needed in applying a reversal theory analysis to a sequence of actions and experiences. The key is understanding that the motivational states of reversal theory are defined in terms of what one wants, not one's behavior, and not whether one succeeds in getting what one wants.

Some evidence

Evidence for the sorts of sequences that have been described have come from the use of a number of different techniques. These include:

- People have been given simple questionnaires, on multiple occasions, to answer during the course of everyday life. In one research project on smoking cessation (O'Connell, Gerkovich, Bott, Cook and Shiffman, 2000) questions were administered by means of a small hand-held computer that each subject carried around with them.
- People have been interviewed about their experiences during some period of time, for example the previous day. Their descriptions are then coded (Potocky, Cook and O'Connell, 1993). Males, Kerr and Gerkovich, (1998) studied the states of slalom canoeists in this way. Hudson & Walker (2002) studied golfers in a similar way.
- People have recorded their thoughts while actually undertaking some activity. For example in one study (Purcell, 1999) golfers were asked to think aloud into a tape recorder that they carried attached to their belts while playing. The resulting material was analyzed later.
- People have been asked to complete "metamotivational diaries," such as the one given above.

In all these cases, people are shown to move backwards and forwards between the different metamotivational states, displaying ever-changing patterns and sequences.

Motivational intelligence

For each pair of states there is no intrinsic superiority for one member of the pair over the other. Indeed, both will be needed at different times in the course of normal everyday life. Whether a state at a given time will lead to personal satisfaction, or be effective in contributing to the needs of others, will depend on the actions the person in fact chooses and their actual impact. Each state may be experienced in satisfactory and unsatisfactory ways and lead to pleasure or displeasure, fulfillment or discontent, frustration or success. For example, in the alloic sympathy state combination one may feel the pleasures of self-sacrifice. On the other hand, one may be seen by the person one is trying to help as "fussing" - which is not likely to lead to gratitude or fulfillment. In the telic state one might be perfectionist in an ambitious way, but one might be too perfectionist to the extent that one is condemning oneself to failure - and probably irritating everyone else along the way.

Over and above the behavior that occurs within the states is the issue of whether the states themselves are appropriate to the situations in which the individual finds himself or herself. For example, does the person want to break rules at moments when this would cause major problems, and not at moments when it would be helpful to be critical and innovative? Are there situations that provide the opportunity for immediate pleasure that the person misses because he or she is totally fixated on distant goals? Are possibilities for developing friendships lost because the person insists on being confrontational and controlling? The point is that the individual needs to be able to match the states being experienced with the opportunities for satisfaction that the ongoing situation presents.

In any case, the way that we handle these states is an important part of our ability to be effective and fulfilled members of the community, as well as living a life which is emotionally rich and satisfying. We might, in fact, refer to this fundamental ability as **motivational intelligence.** We can then see this as a capacity that underlies both emotional intelligence and social skills.

Particular benefits that arise from such motivational intelligence will be indicated in later chapters. In general terms, it can be said that it is of inestimable benefit to be able to recognize our own motivational states. And we need also to identify the states of others, so that we know how best to interact with them. Indeed, people who have strong social skills may be said to be doing this already, without necessarily being fully aware that this is a skill that they are using.

TELIC	**PARATELIC**
PLEASANT • "OK Guys, what are we up to here? What's our long-term mission?" • "I don't care how tedious this work is: I feel it is really worth it." • "It is great to know what I want in my career and where I am going." • "Listen carefully: This is going to be our grand strategy for the next five years."	PLEASANT • "This is fantastic! I don't know when I have ever had such fun." • "I know this is rather dangerous, but I feel I am alive at last." • "Wow!" This project is really interesting – I lost all track of time." • "Mmmmm….keep doing that."
UNPLEASANT • "I am worried sick: what happens if it all goes wrong?" • "We don't seem to be going anywhere with this, we're making no real progress. It's so frustrating!" • "Why do we have to waste our time on these trivial things when we could be doing something significant?" • "There seems to be no point in anything. Can't we do something that would actually make a difference?"	UNPLEASANT • "Is there nothing to do in this wretched town on a Sunday? I am bored out of my mind. I wish to hell we had never come here." • "This job is terribly monotonous. Look at what I am doing! I have to keep doing the same thing over and over and over." • "Are we there yet?" • "This is the most uninteresting film I have ever seen."

Table 2.1

CONFORMIST	NEGATIVISTIC
PLEASANT • "For once in my life I feel that I really belong and know what I am supposed to be doing." • "Nothing feels better than carrying out your duty." • "I am as sure as I could be that I have done the right thing." • "My dear, I just love the quaint traditions around here."	PLEASANT • "No, no way will I do that! Not now! Not ever!" • "It is so great to be free to do your own thing in your own way." • "I think you are totally wrong, and here are the reasons." • "I wonder what it would be like to turn this upside down and…woops!"
UNPLEASANT • "Nobody has told me what I am supposed to be doing. I am all at sea." • "I am so embarrassed to have said that." • "I am anxious to do the right thing. Everybody is looking at me. Help!" • "I would be a lot more effective if I could just fit into the routine."	UNPLEASANT • "My God, all these people are like zombies! I've got to get away from here or I will become like them." • "If I can't say what I really think I shall explode in a minute!" • "These people are so pompous. I just wish I could take them down a peg or two." • "I feel so trapped I could scream."

Table 2.2

MASTERY	SYMPATHY
PLEASANT • "I am in charge around here – and don't forget it!" • "Thank you for awarding me this beautiful trophy which I shall always treasure." • "I think I am pretty good now at operating this piece of equipment." • "Quick march!"	PLEASANT • "I am so pleased to see you again. What a lovely surprise!" • "I am glad we were able to have this chat and get to know each other better." • "I am going to tell you a secret about myself." • "I feel very close to you."
UNPLEASANT • "I surrender!" • "I lost a lot of money as a result of that investment." • "My computer has just crashed …again!" • "I know I came last in the race. There is no need to rub it in."	UNPLEASANT • "You seem so distant these days. Have I done anything to upset you?" • "Try as I might, I never seem to be able to understand you." • "My feelings are really hurt." • "I do not want to see you ever again."

Table 2.3

AUTIC	ALLOIC
PLEASANT • "I want to thank you all for coming to celebrate my birthday." • "I got everything I wanted out of those negotiations, and then some." • "For once, I am going to put myself first." • "Let me tell you my life story."	PLEASANT • "What can I do for you?" • "I am really glad to know that our community has benefited from my work." • "If you will listen to me, young man, I think I can give you some helpful advice." • "I feel that I have become part of something much bigger than myself."
UNPLEASANT • "Nobody is paying me any attention at all!" • "I am tired of having to look after other people all the time." • "Don't I count for something in all this?" • "I am sick of having to worry about you. Isn't it time you asked me what I wanted?"	UNPLEASANT • "I did not realize I had caused you so much trouble. I feel terrible." • "I have failed you." • "I thought I was helping, but it has all been for nothing." • "I feel lonely and isolated."

Table 2.4

THREE

REVERSAL

The idea of **reversal** is the key concept in reversal theory – hence the name of the theory itself. It is the dynamic concept that explains personal change in the flow of everyday living. More specifically, a reversal is a switch from one metamotivational state to its opposite, for example from autic to alloic. It identifies why, in this example, someone who was being selfish suddenly becomes unselfish.

The Necker cube, shown immediately below, is a well-known example of a similar phenomenon that occurs in perception. This shows how very same figure can be experienced in opposite ways. The figure itself does not change, but one's interpretation does. Likewise, with metamotivational reversals the very same situation can be experienced motivationally in opposing ways as one switches over time from one way of seeing a given situation to another.
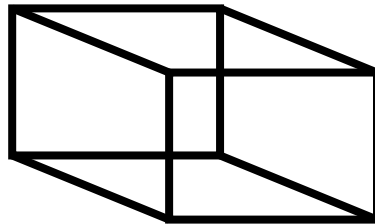
While the reversal concept can help to make sense of the motivational changes that occur in the course of everyday life, metamotivational reversals themselves need explanation. Why do reversals occur? Why does a particular reversal occur at a particular time and in a particular place? What are the factors that lie behind this kind of change?

The first thing to recognize is that reversals are essentially *involuntary*. We cannot just decide to reverse and then do so – as happens for example when we decide to walk forwards, or wave, or speak. Something else has to happen first to elicit the response. Thus a reversal appears to be an automatic reaction, like salivation to food, or like pupil dilation that occurs as a response to increased light. This does not mean that we cannot bring such automatic reactions under our control – as we shall see later in the chapter. But such control is always indirect.

The three causes of reversals

Reversal theory suggests that there are three factors that can, separately or in combination, facilitate or induce a reversal.

Situations

The first factor is that of changing circumstances, events or situations. The reversals that result from this are referred to as **contingent reversals**. For example, when you go out to lunch you may reverse to the paratelic state, and then reverse back to the telic state when you return to work after lunch. These two reversals, in opposite directions, would be contingent on the changing circumstances and surroundings. A solo musician might enter the mastery state when giving a public performance, and then reverse to the sympathy state when receiving plaudits after the performance. A kindergarten teacher might be in the alloic state when looking after the children, but revert to an autic state when she leaves the building to face the traffic when driving home. In such cases situational changes induce state changes through the reversal process. Sometimes the situational changes can be quite subtle. For example, in reading newspaper one might switch from the telic to the paratelic state as one moves from the Business section to the Sports section. When I drive a long distance to get to an appointment, I find that I keep to the main motorways. But if I find that I am well ahead of time, I tend to look for more interesting by-ways. In this way, I alternate between the telic and paratelic states, these alternations being marked by the kind of road that I choose to drive on.

In the following table we see some typical situations that often induce reversals in one direction or the other.

REVERSAL:	Some factors that often induce contingent reversals:
Telic to paratelic	Entertainment, removal of threat, humour, sexual situations
Paratelic to telic	Sudden threat, unavoidable task, need for strategic decision
Conformist to negativistic	Being insulted, arbitrary restriction, something unfair
Negativistic to conformist	Entering a novel situation, appeal to morality, ritual
Mastery to sympathy	Vulnerability, intimate situations, exchanging confidences
Sympathy to mastery	Competition, losing control, being challenged
Autic to alloic	Being part of a crowd, being asked to give help
Alloic to autic	Being alone, needing help

Such changes can be duplicated in the psychology laboratory by setting up different conditions for subjects. For example, in various psychophysiological experiments by Sven Svebak in Norway, the telic state could be systematically induced in subjects by such techniques as a threat of electric shock for inadequate performance (never actually administered, but only threatened) (e.g. Svebak, Storfjell and Dalen, 1982). The paratelic state could be induced by showing subjects a comedy film (Svebak & Apter, 1987). States were identified in this research through questionnaires or interview.

Frustration

The second factor that can lead to reversal is that of frustration. For example, if one is frustrated in achieving an important task (telic state) there may arrive a point at which (at least temporarily) one gives up and does something more enjoyable or one fantasizes about achieving the task (paratelic state). To give a rather different example: if one is frustrated in one's attempt to develop a close relationship with someone (sympathy state), one might start to interact with them in a more cynical and manipulative manner (mastery state).

An experimental study of frustration was carried out by Barr, McDermott and Evans (1993). They presented their subjects with a children's puzzle that was intended to be impossible to solve, although appearing perfectly solveable. Roughly half the participants started in the telic state (as measured by a questionnaire) and half in the paratelic state. The majority of subjects reversed, presumably as a result of the frustration involved in being unable to solve the puzzle. Most of those starting in the telic state finished in the paratelic state and vice-versa.

<u>Satiation</u>
The third cause of change is referred to as **metamotivational satiation.** When a particular state has been active for a certain time, it will spontaneously give way to the opposite state if nothing has happened meanwhile to induce a reversal through situation change or frustration. So if one has been alloic for a certain time it will suddenly occur "out of the blue" that one also has a right to do something for oneself - for example, if one has been looking after an invalid. If one has been working hard at something it can happen that one unexpectedly finds oneself yearning to do something irrelevant – such as have a cup of coffee, or chat idly to friends. The situation here is rather like sleeping and waking. When one has been asleep for long enough one will wake up even if one has not been woken by someone or something. And when one has been awake for long enough, one will go to sleep even in the absence of someone or something to put one to sleep.

This means that there is a kind of underlying internal rhythm that moves one back and forth between opposing states and that, in the normal way of things, ensures a kind of instability in our mental lives, keeping everything on the move. If we are in situations that are ever-changing then this may cause reversals that overlay the internal rhythm of change. But when we are in more constant environments these internally-caused reversals may become more noticeable. (It should be realised that satiation here refers to the satiation of the state itself, not of some experience, activity or pleasure within the state.).

There are some theories in psychology which, like reversal theory, accept that people change during their daily lives. But the explanation is always along the lines that people change because situations change: for example, people must perform different roles at different times. Reversal theory is more radical than this. It argues that people change not only because external contexts change but also

because of the changing internal contexts that are represented by reversals between metamotivational states. This means that people are not only "different from themselves" in different situations, they are also different from themselves in the same situation at different times. Indeed, they may also come to differ from themselves in the course of the very same ongoing activity. This is one of Reversal theory's most distinctive tenets.

A study of the satiation phenomenon by Lafreniere, Cowles & Apter (1988) must be among the most minimalist studies ever carried out in psychology. Psychology students were simply left alone in unchanging surroundings for two hours. Their environment was an almost empty room containing nothing except a computer and chair, with two sets of computer programs available that the individual could choose between. At any time the student was free to choose to continue the program that he or she was already using, or change to another program from either set. One set of programs consisted of video games of various kinds, and the other set of a teaching program on statistics that the student needed for coursework. The "cover story" was that they were going to be asked to evaluate the programs.

For most subjects, as they reported in interview and questionnaire afterwards, interaction with the video game programs was experienced as paratelic and with the statistics teaching programs as telic. (The data for the few subjects for whom this was not the case was excluded from the analysis, so that we could be sure that the type of program being used was an accurate index of ongoing state at the time.) All program choices were timed and recorded, giving the experimenters a running record of metamotivational states over time. Since the context was not changing, reversals from one type of program to the other could be taken to represent reversals between the telic and paratelic states due to satiation or frustration rather than being contingent on some situational change.

After having excluded, on the basis of the post-study interview, reversals that could conceivably have been due to frustration, most participants displayed spontaneous reversals that could reasonably be inferred to have been brought about through satiation. This interpretation is supported by the fact that such reversals were described by participants as "just happening," or happening "for no obvious reason" – they just felt at a given moment that they wanted to interact with the opposite kind of program. Also consistent with the satiation

hypothesis was that the number of these apparently unprompted reversals increased throughout the two-hour period.   On average there were roughly three reversals per participant.

The need to control reversals

Although reversals are involuntary, they can be brought into indirect control. Indeed, helping people to do this is a key feature of many applications of reversal theory. But why would a person want to be able to control reversals in him or herself? There are a number of reasons:

- To take advantage of the opportunities for satisfaction provided in a given situation e.g. to be playful at parties, to be in the sympathy state with one's children, to be in the alloic state while watching sport, to be in the mastery state while engaged in a business negotiation. In other words, it is good to be able to match yourself to different situations in order to be able to get the most out of them in terms of what is "on offer."

- Certain actions are better performed in one state than another. For example, Kerr (2001) and others have found that athletes need to discover which particular states are best for them at different points in their respective sports. Cook and others have shown that those trying to quit smoking are at their most vulnerable when in the paratelic and the negativistic states – so when people at likely to be in such states (for example at parties, they should try to ensure that cigarettes will not be easily available) (O'Connell & Cook, 2001). Fontana (1985), Apter (1982) and others have argued that if you need to be creative it is best to be in the paratelic state. Rhys (1988) found that nurses need to be in the mastery state on some occasions (e.g. when giving injections) and the sympathy state on others (e.g. when taking care of the more personal and emotional needs of patients). A good analogy here is to golf. In golf you need all the clubs you are allowed in your golf bag: if you lack a putter, or a driver, you will be considerably less effective than if you have all the clubs (and know when to use each one, and how to use each one).
- To be compatible with the states of other people, so that one is not "pulling in a different direction" from those one is interacting with.

When this mismatching occurs it is often felt as a kind of discomfort – a discomfort that is puzzling if one does not understand the nature of metamotivational states. People who get on well together – like well-adjusted married couples, or the members of effective teams – sense the states of each other and are able to change as necessary – performing a kind of dance in which the motivational steps are coordinated. Where this does not occur, problems are likely to ensue. For example, Jones & Heskin (1988) argue that those who deal professionally with juvenile deliquents can easily misunderstand which states the youngsters are in when they are being delinquent.

- To provide other ways of dealing with problems that seem intractable. Just as an ice-breaker, when it gets stuck in the ice, has the potential to reverse direction because it has propellers at both front and back (which push in opposite directions), so someone who is not succeeding in one state can switch to the opposite. For instance, if a problem cannot be solved in the telic state, perhaps one will have more luck in the paratelic state. If one is not 'getting on' with someone in the mastery state – try the sympathy state.

- To experience all the states over time and to become more generally fulfilled as a person in this way. In other words, we need to ensure that nothing is missing from our motivational repertoire if we are going to be complete 'all-round' people. And as we shall see later, certain kinds of mental disorder relate to being stuck in certain states.

Managed reversals

An important part of motivational intelligence, then, is to be able to have some control over one's own reversal processes, however indirect this might be.

Clearly (at least until we know more about hormonal and other biological underpinnings of the states), we cannot induce a state by changing its speed of satiation, or its point in the satiation cycle. It is also not reasonable to think of deliberately frustrating ourselves in order to induce a reversal. So in order to bring the reversal process under control we have to make use of events and situations to induce reversals of the contingent type.

The most obvious way to implement this is to actually change one's setting, e.g. to go a bar to induce the paratelic state, to church to induce the conformist state, or to the cinema to induce the alloic state. However, given that typically one is involved in a situation that one cannot immediately change, there are limitations to this strategy. Nice as it might be, one cannot go to a bar in mid-morning while one is supposed to be at work.

A more flexible technique is to condition oneself to certain props or rituals, so that when one handles the prop, or goes through the ritual, one induces the associated state. The term 'conditioning' here is being used in the classical Pavlovian sense. Just as Pavlov conditioned a dog to salivate to a bell by pairing food with the bell on many occasions, so you could induce a state by making yourself aware of something that you have associated with that state. For example, if you watch television, presumably in a paratelic state, with a particular pen to hand, you may be able to reach for this pen in your pocket in situations in which you want to be paratelic (for example when you do not want to be nervous in a business meeting). This would be rather like Pavlov giving the dog the opportunity to ring the bell for himself.

Another technique is to bring to mind images of situations in which you tend to experience different states, in order to induce those states. This is like changing situations, except that the situations are in your mind's eye rather than in reality. It is also not unlike using props, except that the props are in your imagination. A systematic way of developing this technique is to build in your imagination a corridor with eight rooms, each room representing a metamotivational state. Then you fill each room with furniture and props that you associate with the state in question. For example, your telic room might contain a large desk, have a time-table and clock on the wall, be decorated with dark wood paneling, and so on. In contrast, you paratelic room might have sports equipment, loud music playing, a bar in the corner, and be painted in bright colors. In any case, the aim of the exercise is to furnish each of your rooms suitably, with your own choices, so that when you need to get into a certain state you can imagine yourself walking down the corridor and entering the room corresponding to this state. This 'eight rooms technique' has proved particularly popular in self-development workshops.

There is another way that one can intervene in relation to situations. This is to do with the way that one *interprets* the situation.

That is, it is always possible to work at re-framing the situation. This is of course easiest where there is some ambiguity, but there is scope for reframing in almost all but the most extreme situations. For instance, we can try to look for the funny side of things, even in stressful situations and where such humor takes the form of 'gallows humor' and in this way invoke the paratelic state. Or we can deliberately choose to look at things from the other person's point of view during an argument, thus inducing the alloic state.

Research is needed on the effectiveness of these and other reversal management techniques. But clearly an effective "technology of reversal" is on the way to being developed.

Psychodiversity

The fully-functioning person, then, will be able to access all the states at different times, and, over time, obtain all the different satisfactions that are available in these various states. Such a fully rounded person may be said to display **psychodiversity.**

The term 'psychodiversity' has been coined within reversal theory by analogy with the biological concept of biodiversity. A biodiverse ecology is one that contains within it many different species. It is healthy in that, if the climate changes, at least some species will survive to start rebuilding the ecology. Likewise, a person who displays psychodiversity is able to survive personal problems and thrive in different and changing environments.

Personal development depends on psychodiversity, because each state encourages a particular kind of learning.

- If you are willing to work for a future goal and to delay gratification, you will be able to do the hard grind that is essential to develop the skills necessary for success in many fields, such as learning multiplication tables, or practicing scales on the piano. (*Telic state.)*

- If you are willing to experiment and take risks you will be able to explore yourself and the various situations that you confront, and make discoveries, in ways that would not otherwise be possible. (*Paratelic state*.)

- If you are willing to learn by following the example and rules of others, and by modeling yourself on them, you can save yourself the unnecessary time and trouble that would be involved in learning through 'trial and error.' (*Conformist state*.)

- If you are willing to ask difficult and challenging questions and think critically, you may be able to develop the creative and innovative side of yourself. You can also discover in this way where the real limits and rules are in different situations. (*Negativistic state*.)

- If you are willing to work at mastering the different tasks that confront you, you will be able to develop new skills and competencies. (*Mastery and Autic states.*)

- If you are willing to develop close relationships with others, they will be more willing to take time to show you things and explain things to you, and act as your mentor. They will also give you emotional support when you are having learning problems. (*Sympathy and Autic states*.)

- If you are willing to empathize with others, and see things through their eyes, you will be "taken out of yourself" and able to understand the world in a deeper and richer way than would otherwise be possible. Also, one of the best ways of learning is teaching. (*Mastery and Alloic states*.)

- If you are willing to care for others you will develop connections with them that will open you up to new experiences and give you new insights. (*Sympathy and Alloic states*.)

This eight-state structure provides a scaffolding on which we build ourselves, although there may be periods in our lives when we may need to utilize one more than others. During adolescence, for instance, most youngsters seem to need to call frequently on the negativistic state in order to test out what is permissible in the new circumstances in which they find themselves. Young married couples may need to make use particularly of the sympathy and alloic states.

Psychodiversity in groups

Not only can we talk about the psychodiversity of individuals, we can also use the concept to refer to teams and organizations in the classroom and the workplace. Thus a team is psychodiverse if it has available to it all the different states. This may be through having individual members who are dominant in contrasting states, or (preferably) having members who are all well-balanced in all the states and can move between states as required. The point is that each state has something essential to contribute to the team or the organization, and needs to be harnessed to the joint enterprise:

- The telic state can contribute planning, vision, and a sense of mission

- The paratelic state can contribute enthusiasm for the work, and a sense of adventure

- The conformist state can contribute structure and efficiency and a sense of belongingness

- The negativistic state can contribute innovation and a sense of the need to change

- The mastery state can contribute professionalism and competence and a healthy sense of competitiveness

- The sympathy state can contribute to the development of personal relations and a sense of community

- The autic state can contribute personal initiative and a sense of responsibility

- The alloic state can contribute concern for others and a sense of team spirit

These different potential contributions may be needed to different degrees at different times, depending on the problems that are being faced. But in the normal way of things they will all be needed

(Carter, 1999). In these terms, the leader is someone who is able to bring out, and harness, these different forms of motivation to the needs of the group, and to invoke the right states at the right time.

Three additional concepts are relevant here:

1. A **microclimate** (Carter & Kourdi, 2003) can be characterized as the motivational states that a person tends to invoke in others around them. For instance, some people tend to induce the mastery state in their colleagues at work, perhaps because they themselves are often in the mastery state and, in this state, are highly competitive and confrontational. It is not necessarily the case, of course, that one has to be in the same state as the state one induces in others. For example, one could, in the telic state, deliberately and seriously use techniques to induce the paratelic state in others. But often being in a state can in itself 'pull' others into the same state. One of the important functions of a leader is to 'pull' others into states that are appropriate to the task at hand by creating the right microclimate around him or her. The good leader is adept in this way at managing reversals in others and in creating psychodiversity.

2. A related concept is that of **motivational richness.** An environment or setting may be said to be motivationally rich if it makes available the possibility of satisfaction of many different states. For example, a good school may provide ways for pupils to find satisfaction whatever states they happen to be in, whereas a prison may offer the satisfaction of only one or two states (e.g. conformity, mastery). Motivational richness is one of the factors that encourage psychodiversity in a team or organization.

3. **Chronotyping** is like stereotyping, except that instead of over-generalizing from some particular thing that one knows about a person, e.g. race or sex, one over-generalizes from some momentary characteristic that one has observed. So one says things like "he is an unpleasant person," or "she is very serious," even if one has met the person on only one occasion. This is not only over-simple but may have the characteristics of a self-fulfilling prophecy: if you expect someone to be stupid, or unhelpful, you may bring about the very conditions in which this

is likely to be the case. In particular, one should not chronotype about the metamotivational states of others by concluding that someone is always, for example, serious, or negativistic, or self-centered. In doing so you may narrow people's possibilities and make them less psychodiverse than they otherwise would have been. The moral here is: Never say 'Always.'

FOUR

BISTABILITY

Reversal theory moves on from the idea of homeostasis (which emphasizes constancy) to the related but more complicated concept of bistability (which emphasizes polarity). How this happens will become clearer if we look at the way in which reversal theory deals with the concept of arousal. Arousal has become a central topic in the psychology of motivation, emotion and personality, and it is also a central notion in reversal theory.

Arousal can be defined in various ways, but in reversal theory it means the degree to which one is "worked up" and emotionally involved in something – in other words, the intensity of feelings that are being experienced. This definition emphasizes the experiential and emotional aspect of arousal.

Beyond optimal arousal theory

What is the relationship between arousal and what is called 'hedonic tone' – the level of pleasantness/unpleasantness that one is experiencing? This is a long-standing problem in psychology, but the standard answer for the last fifty years or so has been one form or another of "optimal arousal theory" (e.g. Hebb, 1955). The idea here is that, as far as emotions are concerned, there is a central range of values on the arousal dimension which is pleasant – the so-called optimal level. As arousal gets higher or lower than this, so it becomes increasingly unpleasant. When it gets too high we experience anxiety. When it is too low we experience it as boredom. Only in the mid-range of arousal do we experience it as pleasant. This is represented in the well-known inverted U-curve shown on the next page.

This theory expresses another pervasive idea in psychology: that of homeostasis. Indeed, in one way or another, the homeostatic principle
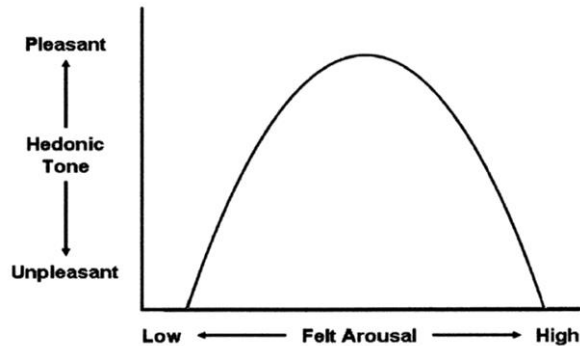
is used in all major theories of motivation before reversal theory. What this means is that movement away from some 'preferred state' is supposed to lead to action that counteracts this movement - so-called
negative feedback - and tends to return the organism to this state. A simple example of a homeostatic system would be a thermostat: this operates by turning on a heater whenever temperatures goes below a specified level, and turning on air conditioning whenever it goes above this level. The outcome is that the temperature tends always to return to the specified preferred level and to maintain some degree of constancy.

Unfortunately, there are some serious problems with the optimal arousal account. The most easily seen is that it is possible to derive intense pleasure from very high – not just moderate – levels of arousal. The clearest example is that of sexual pleasure, and especially of orgasm. But it is possible to compile a long list of activities that people indulge in which it would certainly appear that the more intense the stimulation the greater the pleasure. This would include watching a horror film, reading a thriller, riding a roller coaster, gambling, supporting a sports team, listening to a rock concert, and driving fast well beyond the speed limit.

In the opposite direction, it is also possible to derive pleasure from situations of particularly *low* arousal - situations in which one experiences serenity, tranquillity and calmness. For example, we enjoy low arousal when we have finished some important project and can enjoy the relief that we feel afterwards. We can even enjoy low arousal while we are carrying out the project if we feel that everything is going

according to plan and that we can face what we have to do with composure and equanimity.

Optimal arousal theory is unable to account for these kinds of emotional experiences that we can refer to as excitement and relaxation respectively. This is because it cannot get into the top left and top right quadrants of the graph. Reversal theory deals with this problem by substituting two curves that cross over (X-curves) for the single inverted U-curve of optimal arousal theory, doing so in the way shown in the figure immediately below. These combined curves have come to be known in reversal theory as the **butterfly curves**, because of the overall shape that they make.
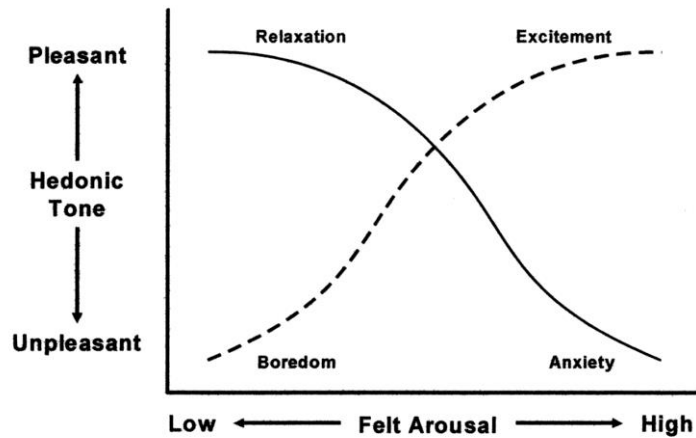
It can be seen that these two curves represent opposite ways of experiencing arousal. In the one case, the more the arousal the better, in the other case the less the arousal the better. In one case we have, as it were, good arousal and in the other, bad arousal. In one case high arousal is preferred, in the other case low arousal. In other words, as we reverse so the arousal dimension inverts in relation to the dimension of pleasantness and unpleasantness.

As far as emotions are concerned, we can now see that anxiety and excitement (or related emotions like fear and thrill) are alternative ways of experiencing high arousal. If we jump from one curve to the other at a high level of arousal, we jump from one of these emotions to

the other. This means that we switch between a very unpleasant and a very pleasant emotion. Any switch from one curve to the other is a reversal, but the effects of such reversals become more dramatic as we move towards the high and low ends of the arousal dimension because the curves takes the butterfly shape shown.

We can now begin to see why people might engage voluntarily in dangerous activities such as risky sports. The danger produces high arousal, initially experienced as anxiety. But when the danger is mastered, there is a reversal to the opposite curve so that high excitement is felt instead. For example, climbers tend to switch from anxiety to excitement at the moment that they overcome a difficult and risky part of the ascent. In this, and similar activities, people may be said to "buy" excitement by experiencing a certain amount of anxiety. Presumably the "cost-benefit analysis" leads them to repeat the activity. In other words, they find that they tend to experience more excitement than anxiety over the whole activity. Of course events may also happen the other way around: people may engage in exciting activities that turn to anxiety when things go wrong.

From homeostasis to bistability

Instead of homeostasis, therefore, we have **bistability**. This means that there are now *two* homeostatic systems that the organism can switch between, rather than one, each system having its own preferred level.   A thermostat with a single preferred temperature level would be an example of homeostasis. A thermostat with different preferred temperatures for heating and air conditioning would be an example of a bistable system. Very often bistable systems switch between not just different but opposite preferred states. A light switch is bistable since it has two opposite preferred states, on and off. If the position of the switch is disturbed it will either shift over to the opposite position or fall back to its original position. Any intermediate position is unstable. Likewise, the two curves shown in the figure on the previous page represent bistability in that either one curve or the other applies. Thus if the situation changes it will either induce the state represented by the opposite curve, or it will not be strong enough to do so and the ongoing curve will continue to apply. Each curve in itself represents homeostasis in that it has a single preferred level (high arousal or low arousal), but the two curves taken

together form a bistable system since one curve *or* the other curve is active at any given time.

There is another theoretical point here. If arousal is a motivational concept, then arousal-seeking and arousal-avoiding are *meta*motivational concepts: they are about the different ways in which arousal can be experienced.

Some arousal-preference studies

The idea that people can in fact enjoy some situations characterized by high arousal, and other situations characterized by low arousal, was tested in the most direct way by Apter (1976). He simply asked subjects to rate varied situations for felt arousal and hedonic tone and found that some highly pleasant situations were indeed associated with very high reported arousal and some with very low reported arousal. In this respect, therefore, the optimal arousal idea could not be sustained.
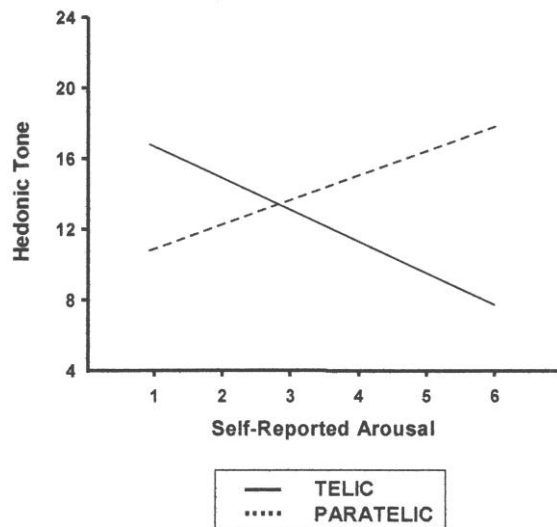
Pilon (1998) examined reactions to ambiguity, using a computer generated mock clinical diagnosis task. He measured his subjects' reported metamotivational states, arousal levels and hedonic tone as experienced by them during the task. When he compared subjects who reported that they were in the telic state during the task with those who reported that they were in the paratelic state, he found that they showed

opposite relationships between arousal and hedonic tone – exactly as predicted by reversal theory. This is shown in the figure on the preceding page (which is based on a multiple regression analysis).

Walters, Apter & Svebak (1982) studied peoples' arousal preferences over time, testing office workers in their workplace and during their normal working day. They did this by asking subjects to indicate a color preference from a range of colors spread from across the color spectrum, subjects being asked to do this at regular intervals (either every fifteen or thirty minutes). The rationale for this was that a preference for a hot color (like red) would represent a desire for high arousal and a preference for a cool color (like blue) would represent a desire for low arousal. (This relationship was in fact confirmed during the course of the study.) Color choice was used as in index of arousal preference since this choice could be made with less disruption to ongoing activity than response to a questionnaire.

Although one might have expected people to have a single and stable preferred color, in fact they tended to show varying color choices over time, indicating that their preferred arousal levels were changing. The data was supportive of reversal theory in two ways. Firstly, subjects tended to choose colors at opposite ends of the color spectrum, meaning that their preferences were for high and low arousal, as predicted by reversal theory. In fact, intermediate colors, that one might have expected to be chosen on the basis of optimal arousal theory, were chosen infrequently. Secondly, subjects switched over time between these hot and cool colors, implying that they were reversing between opposite needs in relation to arousal. Subjects reversed in this way with different frequencies, but the reversal pattern was strongly evident in the data.

In a second study here, it was found that the choice of a cool color was strongly related to choice from a checklist of telic descriptors like serious, and hot colors to choice of paratelic descriptors like playful.

Apter and Batler (1997) asked people who engaged in parachuting for fun, to answer a questionnaire on the way that they experienced this activity. The majority identified the moment of maximum danger as the period of time between jumping from the aircraft and the parachute opening. The most common pattern was for anxiety to build to its maximum intensity just before the parachute opened, and then for excitement to be experienced at its most intense immediately afterwards. This implied that a reversal occurred as danger

turned to safety, resulting in extremely unpleasant arousal being converted almost instantaneously to extremely pleasant arousal. In terms of the butterfly curves there was a vertical jump from one curve to the other.

The protective frame

This analysis brings us to another important concept in reversal theory. This is that in the paratelic state there is necessarily a **"protective frame"** (Apter, 1992). This means that one is psychologically encapsulated in the present moment, which is possible because one also feels that this frame protects one from serious long-term consequences. A result is that one is therefore more likely to take risks. This feeling may or may not be accurate, and things can go wrong when this frame is adopted. For example, people often take health and pregnancy risks by not protecting themselves during sexual intercourse because they feel emotionally that there is a protective frame in place (see Gerkovich, 2001).   The protective frame can also be used unscrupulously to manipulate people. A good example would be the way that soldiers are encouraged to engage in action by contriving to make them feel that they are actors in a kind of theatre or that they are just playing sport. When the protective frame is present, the individual feels invulnerable, even immortal, and can enjoy risk and threat and the arousal that comes with them. This feeling of excitement and 'being alive' that comes with high arousal in the protective frame explains why people engage in bungee jumping, white-water rafting, pot-holing, hang gliding and similar dangerous activities. When there is a protective frame, real fear is not present and people get as close as they can to the 'dangerous edge' that separates safety from harm.

The general situation has been referred to as the "Tiger in cage" phenomenon (Apter, 1992). A tiger in a cage is exciting because there is danger (which is arousing) but one perceives that one is protected from it. In contrast, if there was no cage, there would be no protection and one would feel anxious (even terrified). And if there was a cage with no tiger, one would be quickly bored in contemplating it. Excitement therefore needs the presence in experience of two seemingly opposite things: safety and risk, cage and tiger.

Looking at things in this way, then, gives us an insight into the reasons for what we can think of as **paradoxical behavior.** This is

behavior that makes little sense from the point of view of biological survival, because it involves people gratuitously taking risks or willingly doing things that are likely to be harmful to themselves or others. We have already seen that people might engage in risky sports like parachute jumping for the pleasant high arousal that they can achieve in this way. Such paradoxical behavior is likely to occur when people are experiencing a protective frame that makes them feel that ultimately nothing really bad will happen to them. This may or may not be accurate when looked at objectively from the outside.

In a more general way, the protective frame goes beyond danger and its effects - it cuts us off from consequences of all kinds. Since awareness of, and concern about, consequences is essentially telic, the presence and absence of the protective frame determines not just arousal preference but also whether the telic or the paratelic state is active. In the telic state anything that frustrates the achievement of a goal is likely to make us feel anxious, since the consequences are likely to be serious, whereas when the goal is achieved we will feel relief. By contrast, in the paratelic state, anything that increases the intensity of the ongoing experience will produce excitement, whereas a lack of stimulation will produce boredom. *It should be clear from all this that arousal-avoidance and arousal-seeking are aspects of the telic and paratelic states.* The two curves we have been looking at are therefore telic and paratelic curves.

Tension-stress and effort-stress

It will be realized from the preceding discussion that feelings of tension do not relate just to high arousal, but can relate equally to low arousal. In fact, we can now define **tension** in reversal theory terms as the failure to experience things in the way that one wants, given that one is in a particular metamotivational state. In relation to arousal, anxiety is a form of tension (in the telic state), since one wants low arousal while in fact experiencing high arousal. But equally, boredom is a form of tension (this time in the paratelic state), because in this case one wants high arousal but is experiencing low arousal. The further one is from where one wants to be, the greater the tension. Tension therefore can arise in opposite ways at different times: sometimes high arousal is experienced as a form of tension, and sometimes low arousal.

Tension is another way of describing stress. Whereas most theories tend to equate stress with anxiety, we can see that boredom is

also stressful. In fact both unpleasant emotions may be said to represent different forms of **tension-stress.** (Other unpleasant emotions to be discussed below also involve tension-stress.).

But there seems to be another fundamental form of stress, which we can refer to as **effort-stress.** This is the experience of trying to cope, of working hard at something, pushing oneself, being determined, and exerting effort. It can be seen that effort-stress is a possible response to tension-stress. Thus if one is experiencing the tension-stress of anxiety, one can exert effort to attempt to deal with the problem that is causing the anxiety. If one is experiencing the tension-stress of boredom, one can exert effort in getting involved in arousing activities. It should be clear from this that effort-stress is not a form of arousal, but an aspect of attempts to decrease tension (which might involve either increasing or decreasing arousal).

In these terms, we now have two forms of stress: tension-stress and effort-stress. Interestingly, tension-stress seems to be the kind of stress that psychiatrists are most interested in, while effort-stress is the kind of stress referred to in the rest of medicine. To put this another way, tension-stress seems to be related particularly to neurotic and other psychopathological symptoms, while effort-stress seems to be related more to psychosomatic symptoms such as ulcers, back aches and heart attacks.

There is an important practical point with respect to tension stress. This is that there are always two ways of dealing with it. The first is changing one's position on the curve, e.g. increasing felt arousal. The second is switching curves (reversing between opposite metamotivational states). Typically, therapists and others think in terms of the first of these and lose sight of, or are unaware of, the second. Let's take the case of anxiety. Most therapeutic approaches to anxiety, whether these be through the use of drugs, relaxation exercises, conditioning, or in some other way, appear to assume that the aim is to lower arousal, thus moving the client from anxiety towards relaxation. But reversal theory points out that there is a second possible strategy that could be used: to help the client to reverse from the telic to the paratelic curve so that anxiety is converted into excitement. Whether or not one uses this second strategy, there is at least a therapeutic decision to be made. Unfortunately, this decision usually goes by default with most therapists.

Negativistic butterfly curves

We have so far looked at emotions only in terms of the telic and paratelic states. Let us now extend this analysis to cover all the states.

Reversal theory divides the emotions into two categories. First of all there are the somatic emotions, so called because they arise from different levels of felt arousal. In other words, these emotions relate primarily to certain bodily feelings. ('Soma' is ancient Greek for 'body.') Secondly there are transactional emotions that relate to the outcome of our actions in relation to other people and things – whether we gain or lose. We have already seen that the telic and paratelic states act in relation to felt arousal in different ways so as to produce four basic somatic emotions. To complete our understanding of somatic emotions we need also to look at conformity and negativism, and how they interact with the telic and paratelic states.

In fact, the four emotions that we have looked at so far – excitement, anxiety, relaxation and boredom – are really telic/paratelic *conformist* emotions since they do not involve any desire to break rules. But when the telic and paratelic states are combined instead with the *negativistic* state, each of these emotions is converted into a different, negativistic, emotion. Thus anxiety becomes anger. Like anxiety it is in the bottom right quadrant of the graph. It is still a form of unpleasant high arousal, but it has changed its "coloration." It now involves the desire to do what one should not do (e.g. hit someone that one is angry with). All four forms of negativistic emotion can be seen by inspection of the figure on the next page, that displays the negativistic butterfly curves.

Let us look at these four types of negativistic emotion from the perspective of the reversal theory framework:

- *Anger* means wanting to do what one knows what one should not do, for example in reaction to unfairness. This is a telic emotion and so the high arousal is unpleasant and represents a form of tension. This emotion is the negativistic version of anxiety.
- *Mischievousness* means enjoying the fun that comes from doing what is forbidden: playing a practical joke, taking a banned drug, swearing in polite company, driving over the speed limit. This is a paratelic emotion and so the high arousal is pleasant. This emotion is the negativistic version of excitement.

- *Placidity* means continuing to be negativistic in orientation, but for the moment not feeling worked up about things. It can be described as calm hostility or, in some circumstances, as resignation. Since this is a telic emotion, the low arousal is pleasant. This emotion is the negativistic version of relaxation.
- *Sullenness* means wanting "trouble" and not finding it, or anything else, to engage one's hostility. Since this is a paratelic emotion the low arousal is unpleasant, and represents a form of tension. This emotion is the negativistic version of boredom.

Negativistic
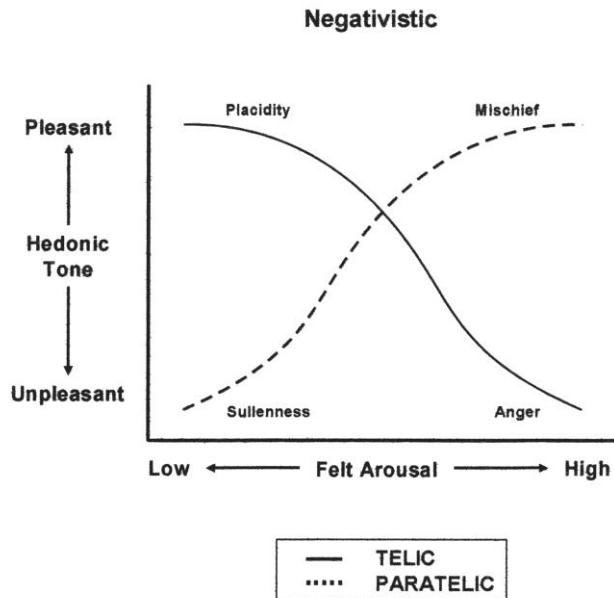
Just as reversals can occur between the curves shown in the earlier figure, so the same thing can happen here. For example, mischievousness can turn to 'real' anger if someone reacts to the mischievous behavior in a way that seems to be too strong or unfair – for instance someone becomes physically aggressive in response to verbal taunts.

Note too that when a reversal occurs from conformity to negativism, the emotion will change to that in the corresponding position on the contrasting set of butterfly curves. So for instance boredom

would change to sullenness if someone's boredom started to take on a hostile quality.

Transactional butterfly curves

Just as the somatic emotions are different ways of experiencing felt arousal, so transactional emotions are different ways of experiencing "felt transactional outcome." Felt transactional outcome refers to whether one sees oneself as having gained or lost as the result of some interaction. For example, if you win a competition you might feel pride. Pride is therefore a transactional emotion.

We have seen how the telic and paratelic states invert the pleasantness and unpleasantness of emotions, so that what was pleasant before a reversal (e.g. relaxation) becomes unpleasant after it (e.g. boredom). In the same way, in the transactional emotions the autic and alloic states invert the pleasantness and unpleasantness of transactional emotions. For example, the feeling of virtue at having allowed the other person to gain in some way becomes resentment at being taken advantage of. Pride at dominating others, after a reversal to the alloic state, can be felt as shame at having humiliated others. The complete set of relationships, involving more butterfly curves, is shown in the two figures at the top of the two next pages.

Let us look at each of the emotions in these transactional butterfly curves, and consider examples. These are examples only, or typical cases. Note how each emotion relates to a combination of two metamotivational states, e.g. self-oriented and mastery, and relates these to some degree of gaining or losing. Gain-loss should not be thought of in an objectively measurable sense, but in terms of how the person himself or herself sees things. In this respect, gaining and losing often relates to what the person had expected in the situation rather than to some absolute level or gain or loss.

- *Pride*. This is what one feels when one gains in the autic mastery state combination. It is about domination and control and "having one's own way." E.g. winning a race, being given a prize, gaining from a business deal, learning a new skill, operating a powerful piece of equipment, passing a test.
- *Humiliation*. This is the experience of *losing* in the autic mastery state combination. It is about failing to be strong or to prevail. Examples would be displaying incompetence, losing an argument,

Mastery
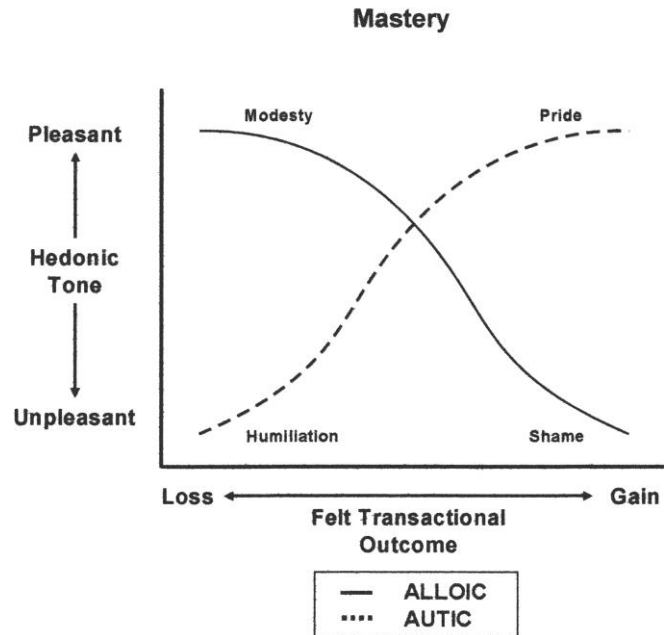
being easily beaten in a sports contest, paying too much for something, breaking something valuable by mistake.

- *Modesty.* When one is modest, one feels good about allowing, or helping, the other to gain, even at one's own expense. Here one sees winning as "showing off," since in the alloic mastery state combination one puts others first and sees things from their point of view. For example, one may feel uncomfortable at showing off or boasting about special knowledge at a dinner party, but good about praising someone else. Now one gets pleasure from the fact that someone else is gaining.

- *Shame*. In this case, one realizes in the alloic mastery state combination that one is taking advantage of others and that one is using one's powers to the other's detriment. Examples would be gaining attention through sexual flirtation, or humiliating someone through making public certain private and privileged knowledge or invading someone's personal space.

- *Virtue*. This is about feeling good, in the alloic sympathy state combination, that one has done something to care for someone else.
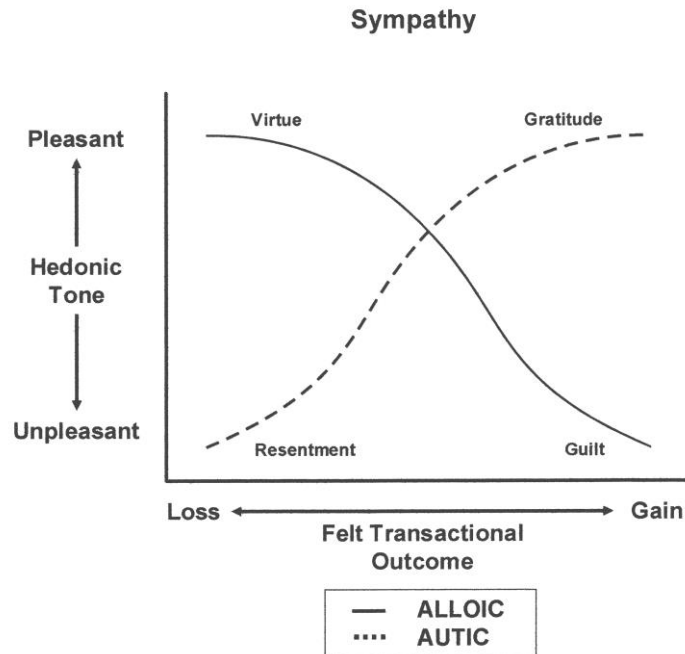
Sympathy

Examples would be remembering a relative's birthday, visiting a friend in hospital, giving a colleague some helpful personal advice, giving compassion away rather than keeping it to myself.

- *Guilt*. This is about feeling bad, in the alloic sympathy state combination, that one has *not* done something that one could or should have done to help others. Perhaps one was unsympathetic about a friend's personal problems, failed to respond to a request from a charity, or made an embarrassing remark about someone. The upshot is that someone else feels disliked or unloved or unhelped because of you. It differs from shame in that the upshot of the behavior that leads to shame is that someone else feels belittled, cheated, disrespected and not given their due.
- *Gratitude*. Here, in the autic sympathy state combination, one is pleased to have been given something. For example, one has been bought a drink, given an expensive present, told an intimate secret, offered genuinely helpful advice.
- *Resentment*. In the autic sympathy state, one is upset that a relationship is becoming one sided in terms of giving, or that one has

not received something that one expected – a birthday present, a dinner invitation, a thank you message, flowers. One may not lose in absolute terms, but more in terms of one's expectations.

As with the somatic emotions, reversals between opposites will change the emotions that are felt. For example, when you have been looking after an invalid for a long time, and feeling virtuous about this, there may come a moment when you suddenly feel resentful. This means that a reversal has taken place from the alloic to the autic state at the "losing" end of the dimension (while the sympathy state continues to be active throughout). In this case the reversal results in a sudden concomitant switch from pleasure to displeasure. (You may want to check this out on the relevant butterfly curve on page 52.) If in this example there is now a reversal from the sympathy to the mastery state, the emotion will change from resentment to humiliation as one comes to see one's relationship with the individual as a kind of power struggle that one is losing. In this case the displeasure will remain the same, but the "coloration" will be different, being about control rather than caring. Suppose finally that a reversal occurs from the autic to the alloic state (while the mastery state and losing remain unchanging), then the new resulting emotion will be modesty – one will feel good that one has not selfishly put oneself first and be pleased that the person one is looking after has gained from the situation.

Emotionality

There are a few things to notice about this whole account of the emotions:

- Emotions become stronger as they move away from the central area of the graph. Indeed, at the actual cross-over point itself no emotion will be felt at all, and comparatively little emotion will be felt in the central area of the graph.
- At any given time, one will experience one somatic emotion (e.g. excitement) and one transactional emotion (e.g. pride). One may be much more aware of one rather than other, depending on which states one is focussing on at the time. (And one or both emotions may be nonexistent if they are at the cross-over point of the curves.)
- Tension may be felt in relation to all eight of the curves shown in the diagrams. The principle is the same whether we are talking of somatic or transactional emotions: if one experiences oneself as far

from the preferred level of the variable in question, one will experience tension-stress.

- If one curve represents a form of homeostasis, a pair of curves that cross each other in the way shown represents bistability. All the curves taken together represent **multistability,** since more than one bistability is now involved.

Parapathic emotions

If we start to think about unpleasant emotions, there seems to be a "fatal flaw" in the reversal theory analysis of arousal. This is that bad emotions are by definition unpleasant, and yet if they are strong – and therefore involve high arousal – such bad emotions should be enjoyable in the paratelic state. This means that we would be able to enjoy bad emotions like anger or guilt. But in fact this is exactly the case. What might seem initially to be a weakness in the reversal theory argument is, in fact, a considerable strength – an insight into our emotional lives that is lacking in all other theories of emotion. Provided that we are detached from real threat and from any serious implications of our behavior (in other words, provided that we are within a protective frame) we can – and do – enjoy supposedly unpleasant emotions. The most obvious way that this happens is through our enjoyment of fiction in all its forms – books, theatre, and television. Here we identify with heroes and heroines who undergo all kinds of trials and tribulations In the process, we vicariously enjoy their painful emotions. We relish the anxiety of a thriller novel, the horror of a horror film, the grief of a theatrical tragedy – these emotions are the essence of the experience. Why would we regularly repeat such experiences if we did not enjoy them so much?

In reversal theory, such paradoxical emotions are called **parapathic emotions.** These are emotions that are alongside other emotions. As we have already seen, "alongside" is what the Greek word "para" means. It is also used in the term 'paratelic' – which help to bring out the fact that parapathic emotions are associated with the paratelic state. In reversal theory writing, the parapathic form of an emotion is often put in inverted commas to distinguish it from the unpleasant telic form. So we can talk about "guilt" where the person is enjoying doing something forbidden, "anger" where enjoyment comes from being aggressive, and so on. (All such emotions could take their place in the top right quadrant, alongside mischief in the figure on page 49.)

A parapathic emotion therefore can be defined as an emotion that would be unpleasant if experienced in the telic state but that becomes pleasant in the paratelic state. Given the amount of time that most of us spend in front of television sets, or being entertained by fiction of one kind or another, these emotions are ones that we experience at some length almost every day of our lives.

FIVE

DOMINANCE

The structure of conscious experience as described in reversal theory is claimed to be universal, and yet people differ from each other. There is no contradiction here. People differ, but in ways that can be understood in terms of this structure. An analogy would be chess: everyone plays to the same rules, but there are many different possible moves within these rules and different strategies that can be employed. Likewise, everyone can experience the eight different metamotivational states, but *when* they experience each of them, and how *frequently* they do so, and how they *behave* in each state can vary enormously.

One way in which people differ is that they have internal biases towards one state or other in a pair. That is, they have a tendency to be in one state rather than the other, displaying a kind of internal preference and imbalance. One person, for instance, may be disposed to be frequently in the sympathy state while another is disposed to be more frequently in the mastery state. We refer to this kind of bias as **dominance.** Thus one person may be highly mastery dominant, someone else may be mildly sympathy dominant, while a third person might show no strong dominance either way on this dimension. In other words, there is a dimension along which we can describe different people's different dominance tendencies.

Dominance is not a trait in the conventional sense. This is because a trait describes something static, while dominance refers to something dynamic. A person who displays a certain *trait* (like extraversion) to a certain degree is always supposed to display that trait to that degree. In contrast, someone who is *dominant* to some degree will still spend time in the opposite state. Hence a person who is sympathy dominant may still spend periods of time in the mastery state – and when in this state be just as fully in this state as someone who is mastery dominant.

Telic dominance

Various tests have been developed to measure dominance within the different pairs of states. One of the earliest, and most widely used in past research, is the *Telic Dominance Scale* (TDS) (Murgatroyd, Rushton, Apter & Ray, 1978) which measures the dominance of people in terms of the telic and paratelic pair of states. There are 42 items, each consisting of a forced choice between an activity that, in the way described, could be reasonably assumed in most cases to be telic and one that could be assumed to be paratelic, e.g. eating special things because you enjoy them (paratelic) versus eating special things because they are good for your health (telic). Each item also contains a "Not sure" option.

Over the years, telic dominance has been found to relate to many different characteristics in ways that are consistent with reversal theory's predictions. A list of examples of such research findings, using the TDS, is given in the following table. Note that these significant correlations are all expressed in terms of increasing telic dominance. (They could equally have been expressed in terms of increasing paratelic dominance and the relationship would then be inverted.) More details, and full references to this research area, will be found in Apter and Desselles (2001).

- Greater tendency to use problem-focussed coping strategies
- A preference for endurance rather than explosive sports
- Lesser preference for risky rather than safe sports
- Greater fear of failure and less hope of success
- A less casual and more organized lifestyle
- Greater care and accuracy in making descriptions
- Greater precision in dealing with difficult psychomotor tasks
- A lowered sensitivity to unpleasant and emotional words
- A less acute sense of humor
- Less variety of sexual behaviors indulged in
- Less use of pornography
- Less interest in gambling, and smaller odds when gambling
- Less likelihood of taking drugs
- Less likelihood of being addicted to alcohol or tobacco
- Less likelihood of delinquency during the teen years
- A greater likelihood of displaying obsessional behavior

Svebak and his colleagues have also associated telic dominance with a number of psychophysiological characteristics, as listed in the table immediately below. (In this table, increasing telic dominance correlates positively with the characteristic described.) Full details and references will be found in Lewis and Svebak (2001). These findings show that, although initially identified phenomenologically (i.e. experientially), the telic and paratelic states have a definite biological 'reality.' In addition to validating these concepts, this relationship to psychophysiology can have important practical implications. For instance, since muscle tension build-up is faster in people who tend to be telic, they may be more likely to become fatigued during prolonged activities and need to find ways to switch regularly to the paratelic state.

☐ Greater heart rate increases in response to threat
☐ Faster and deeper breathing in response to threat
☐ Greater muscle tension build up during tasks
☐ A more focal and localized pattern of cortical activation
☐ Higher P300 scores (a measure of cortical reactivity)

A more recent scale for measuring telic dominance is the Paratelic Dominance Scale (Cook & Gerkovich, 1993). This consists of 30 simple statements, like 'I often take risks,' which the respondent is asked to judge as true or false.

Telic dominance and stress

If it is true, as reversal theory claims, that arousal is disliked in the telic state and enjoyed in the paratelic state, then one would expect people who are telic dominant to dislike, more often than not, those things that we usually think of as stressors, since they cause arousal. By the same token, we would expect that people who are paratelic dominant would, in general, *welcome* stressors (in the conventional arousal-causing sense) for the same reason. This rather surprising reversal theory prediction was tested by Rod Martin and his colleagues. In one of their studies (Martin, Kuiper, Olinger & Dobbin, 1987), telic and paratelic dominant students, as measured by the TDS, were compared in terms of

how well they responded to stress. The amount of stress was measured by the number of stressful events reported as having been experienced over the previous year (such as failing an examination or breaking up with a boyfriend or girlfriend), and the effects of stress by means of a scale measuring mood states.

The results are shown in the following figure which depicts regression curves for telic dominant students (dashed line) and for paratelic dominant students (continuous line). This shows that, as expected, for the telic dominant subjects, the more the stressful life events reported, the greater the mood disturbance. It also showed that, as uniquely predicted by reversal theory, there was an inverse relationship for paratelic dominant subjects, at least for lower levels of stress. In this case, the less the stress the unhappier they were. Above a certain level of stress, however, this changed for the paratelic dominant subjects since the direction of the curve above this point started to align itself with the curve for the telic dominant subjects. We may assume that at this stage, because the stress has become too great, they are reversing to the telic state. A similar pattern was found when a measure of daily hassles was used instead of the negative events inventory.
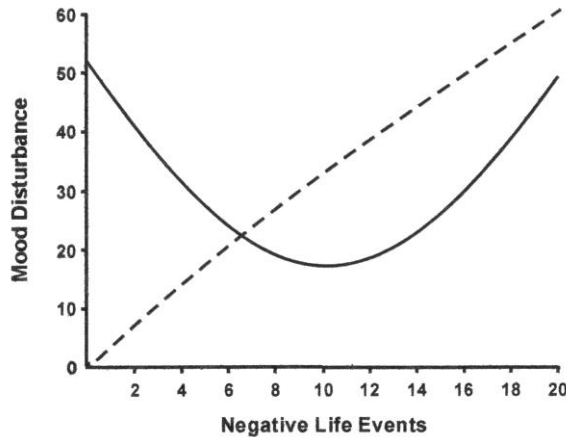
Arousal preference and arousability

There is a further implication of the concept of arousal preference, and the idea that high arousal is preferred in the paratelic state and low arousal is preferred in the telic state. This is that we must

distinguish between arousal preference – the level of arousal one wants - and arousability, which is how easily worked up and emotional one gets about things. (Previous theories of personality and arousal have tended to be entirely about the latter.) Arousal preference and arousability do not necessarily go in the same direction and have in fact been found to be independent (Lafreniere, Gillies, Cowles and Toner, 1993). Thus one could be highly arousable but generally not want high arousal because one is often in the telic state. In this case one might suffer from chronic anxiety (as also documented by Lafreniere et al.) On the other hand, one might be low in arousability, but often want high arousal because one is often in the paratelic state. In this case, one would be frequently experiencing boredom and perhaps reacting to this by taking unnecessary risks, or regularly exposing oneself to strong stimulation of one kind or another, as in addiction.

In the other two conjunctions, matters are generally more satisfactory. In other words, in two cases there is an innate tendency towards tension and in the other two cases an innate tendency away from tension. These combinations are shown in the following table.

	Low arousability	**High arousability**
Low preferred arousal dominance	Frequently CALM and composed	Frequently ANXIOUS and avoiding stimulation
High preferred arousal dominance	Frequently BORED and searching for stimulation	Frequently EXUBERANT and excitable

Negativism dominance

Another dominance scale that has proved useful in research has been the *Negativism Dominance Scale* (NDS) (McDermott, 1988). This measures the preference people have for the negativistic or the conformist state. Interestingly, it measures two contrasting types of negativism, which it refers to as reactive and proactive negativism respectively. **Reactive negativism** occurs when the individual experiences something as unfair or unjust and feels hostile as a result. If the feeling is intense it will be experienced as anger, and may lead to

aggressive behavior. **Proactive negativism** occurs when the individual is gratuitously provocative and rebellious. In this case, accompanying feelings are likely to be of the more mischievous kind. (It can be seen from these descriptions that reactive negativism seems to involve a combination of the telic and negativistic states and proactive negativism a paratelic-negativistic combination.)

The NDS has been used in a variety of studies as reviewed by McDermott (2001). A summary of some of these results will be found in the following table.

REACTIVE	☐ Enjoyment of hard rock videotapes. ☐ Participation in risky sports ☐ Juvenile delinquency ☐ Truancy in adolescents ☐ Poor performance at school ☐ Need for power ☐ Rugged individualism
PROACTIVE	☐ Participation in risky sports ☐ Liking to speak and entertain
BOTH	☐ Enjoyment of disgusting humour ☐ Heavy smoking

The Apter Motivational Style Profile

More recently, another scale has been developed which in some ways is becoming the scale of choice in reversal theory research, since it measures the dominance of all four pairs of states in a single instrument. This is the *Apter Motivational Style Profile* (AMSP). Derived from the longer Motivational Style Profile (MSP) (Apter, Mallows & Williams, 1998), it consists of forty items representing eight subscales. The items are simple statements such as 'I like to break rules' and 'I like to be in control of things.' The respondent is asked to rate each item on a six point temporal scale from 'Never' to 'Always.'

Each subscale, then, measures the time the respondent reports, in general, spending in the metamotivational state concerned (telic, paratelic, etc). This means that the scores on the eight subscales taken

together provide an overall metamotivational profile for that respondent. In this way it is possible to see the relative importance that each state, and its associated value (achievement, power, etc), has in the individual's life. Furthermore, dominance can be scored for each pair by subtracting one member of the pair from the other, providing a dominance profile for the test-taker across the four pairs of states. The test provides a kind of snapshot of the respondent's personality at the time of taking the test, without implying that this is the way that he or she might have been at other periods of life, or that it is not possible to change.

A great deal of information can be generated from this relatively short instrument. For this and other reasons, the scale is becoming used widely for counseling and coaching, especially in an organizational context. It provides an excellent basis for discussions and explorations of whether, and in what ways, the individual might want to change. Computer generated reports are provided to counselors who wish to take advantage of the internet scoring system provided by Apter International (www.apterinternational.com)   Researchers may also use the Apter International website to administer and score the profile.

State-balance

There is a distinction between the internal bias that an individual has in relation to a pair of states – dominance – and the actual amount of time spent in each member of that pair. This would be exemplified by someone who is sympathy dominant, but unable to spend much time in the sympathy state at work because of the need to spend extensive time operating machinery. The actual amount of time spent in one state rather than the other is referred to as **state-balance**. Thus in the example just given, the **situational state-balance** (where the situation is work) would be one showing a more frequent mastery than sympathy state. In referring to state-balance it is always necessary to specify the situation, or the period of time, involved. For example, the same individual might show a state-balance favoring the sympathy state if this was measured when he was at home. It is also possible to conceive of state-balance at a particular event at a particular time (e.g. when at home on a particular evening) This is **event state-balance.**

Under normal circumstances, state-balance over a reasonable period of time, and across a variety of contexts – **general state-balance** - will be a good index of dominance. (Technically, the Apter Motivational

Style Profile measures general state-balance, and then dominance is inferred from this.) That is, unless the environment overpowers the individual's innate bias and pushes him or her in some particular direction, then the time spent in one state rather than another will be expected to provide a good indication of that individual's own tendencies to be in that state.

These different kinds of state-balance are summarized in this table:

TYPE	REFERENCE	EXAMPLE
Event state-balance	Defined continuous short period of time	Relative time spent in the two states during a particular drive to work
Situational state-balance	Aggregated repetitions of the same defined situation	Relative time spent in the two states while driving to work, averaged over the last month
General state-balance	Defined continuous long period of time	Relative time spent in the two states over the last month, averaged over the whole period and all situations during that period

The most extensive research on state-balance comes from a study of students over 60 days by Apter and Larsen (1993). Subjects were asked to summarize their moods and activities by responding to a questionnaire on three occasions each day: at noon to summarize their feelings during the morning, at 6.00pm to summarize their feelings during the afternoon, and at bedtime to summarize their feelings during the evening. Among other things, this allowed a comparison of their state-balance on the telic/paratelic dimension for each of these time periods. In general, the data showed that most individuals were subject to strong swings between different state-balances over the period of the study, sometimes favoring the telic and sometimes the paratelic state - although the amplitude and frequency of variation changed from individual to individual.

The problems of being stuck

Each individual will have his or her own pattern of dominances, making up a dominance profile over the four pairs of states. As we have seen, this profile can be measured by means the Apter Motivational Style Profile. Typically, an individual will show some degree of imbalance within the members of one or more pairs, and this is to be expected. In some cases, however, extreme dominance is displayed on at least one of the pairs. This means that the individual is essentially 'stuck' in one member of the pair and only very infrequently experiences the opposite state. This limits the degree of motivational diversity that the person will experience. Such extreme dominance may also play a role in the development of one or another recognizable form of mental illness. For instance, as we have already seen earlier in this chapter, chronic anxiety may arise from being trapped in the telic state, together with being highly arousable.

Another example would be addiction. Here we see that the individual may be trapped in the paratelic state, spending much of his or her time searching for immediate stimulation. The problem is then compounded by the fact that in the paratelic state addicts are stuck with a particular means of gaining stimulation, be this through drugs, alcohol, gambling, or in some other way. (Loonis, 1999, has referred to this narrowing of the possibilities for action as a lowering of 'vicariance.') Furthermore, the particular tactic chosen is one that is likely to cause major problems in the long terms, be these financial problems, relationship problems or health problems.

Depression is another major type of psychopathology that may derive from being trapped in a particular metamotivational state. In this case, the feeling of being trapped is associated with a feeling that one is never going to have the satisfaction that one wants in the state in which one is stranded, meaning that despair is associated with the tension involved.   This implies that there are eight different kinds of depression which might take such forms as the following:

- *Telic.* Life has become meaningless and without worthwhile goals.
- *Paratelic.* Life has lost its savor – nothing gives pleasure.
- *Conformist*. One is unable to do what one is supposed to do - one is inadequate or sinful.

- *Negativistic.* One feels trapped and unable to break free and be oneself.
- *Autic Mastery*. Life is out of control and one feels oneself to be beaten.
- *Autic Sympathy*. One is unlovable and no one cares.
- *Alloic Mastery*. There are no great causes to take one 'out of oneself.'
- *Alloic Sympathy*. There is no one to love or care for.

Other personality differences

There are many ways, over and above those addressed in this chapter, in which people can differ from each other in relation to the structures and processes identified in reversal theory. More research will be needed on these in the future. Here are some of the main ones:

- *Salience.* People differ in terms of the relative importance that they assign to different pairs of states in their lives. Thus some people are more aware than others of issues to do with rules than other people (meaning that the conformist-negativistic pair is more salient for them). Some people are more sensitive to whether they are doing things for themselves or on behalf of others (meaning that the autic-alloic dimension is more important for them than for other people). The Apter Motivational Style Profile also allows salience to be measured, by adding the scores together for each pair of scores. In this way one can measure telic/paratelic salience, and so on.
- *Lability*. People differ in terms of how frequently they tend to reverse on each of the pairs of states. For instance, one person may spend hours in the telic state followed by hours in the paratelic state, while another person might tend to reverse between these two states every twenty minutes or so.
- *Trajectories.* People may tend to go through characteristic sequences of states. This underlines the way in which personality is a matter of patterns over time rather than fixed types.
- *Combinations*. People may tend to experience certain states together. For example, one person may tend to experience the paratelic state in combination with the mastery state (e.g. getting fun from challenge and competition) and another person with the negativistic state (e.g. getting fun from doing things that are forbidden).

- *State induction*. People will clearly differ in terms of the different objects, people and situations that will induce each of the states, this presumably being largely a function of earlier experiences. For example, being approached by a beggar might induce the alloic and sympathy states in one person and the negativistic state in another. Being at the top of a tall building might induce the telic state in one person and the paratelic state in another.
- *State-specific behaviors*. People will have learned, more or less effectively, different concrete ways of obtaining the satisfactions of different states in different settings. For example, at home people will have a range of things that they can do for fun, but these differ from person to person. The things the people do in one metamotivational state may be very different from what they would do in another state. Thus someone might love rock music in the paratelic state and hate it in the telic state. People not only change but are also self-contradictory in terms of what they want at different times.
- *Motivational intelligence*. In general, people differ in terms of their overall ability to control their own reversals and those of others, the life skills they have developed in relation to the different states, and so on.

It can be seen from this chapter that, although there are certain kinds of consistencies that can be referred to as 'dominances,' personality is dynamic, self-contradictory and often paradoxical. In recognizing this complexity, reversal theory goes beyond trait theories of personality and opens up whole new vistas for future research. Indeed, reversal theory suggests a whole new field of study that we might refer to as "personality dynamics" - hence the title of this book.

SIX

SYNERGY

"Synergy" is quite a fashionable term these days. When it was introduced in reversal theory in the nineteen seventies, this was far from being the case. In general, **synergy** refers to situations in which two things coming together produce an effect that is greater than, or qualitatively different from, what could have been produced by either acting on its own. (The word "synergy" comes from the Greek "syn" meaning "together" and "ergos" meaning "work.") For example, steel is tougher than either of the basic components that go to make it up (iron and carbon). Two drugs are said to act synergistically on a patient when they potentiate each other, e.g. barbiturates and alcohol together make someone more depressed than either would have done alone.

Reversal theory focuses on a particular kind of synergy, a psychological synergy referred to as **cognitive synergy.** Here, two characteristics are brought together in conscious awareness in such a way that they produce special experiential effects. The way that they are brought together is through being associated with the same entity (e.g. object, person or situation). They produce their effects by being incompatible with each other. In this sense they are paradoxical: in synergy, a given identity is experienced as having properties that logically cannot go together.

Here are five brief examples. Other examples will be found in Apter (1982, 1989).

- Suppose you see a man wearing women's clothes. You experience the same person as, in a sense, having both male and female qualities.

- When you look through a stereoscopic viewer, what you see is three-dimensional. And yet you know that the pictures you are looking at are in fact two-dimensional. So you are aware simultaneously of both flatness and depth.

- In many cartoons, animals act and speak like humans, and the interest in these characters derives in part from the contradiction between their animality and their seeming humanness.
- An actress on stage takes off her blonde wig to show that she is really a brunette, so that there is a momentary clash in your mind between these two different ways of seeing her.
- A line of white clouds on the horizon looks like a mountain range. You switch backwards and forwards between seeing them first one way and then the other, so that, although you are aware that they are not mountains, there are times when you see them that way.

The effects produced by synergies are special in that they have a certain kind of magic or fascination that is at least momentarily arresting, even startling. In a more prolonged way, the effect can be absorbing. This stimulating and arousing effect could not have been produced, or produced so intensely, by the characteristics themselves experienced independently. A second effect that often seems to occur is that the characteristics are experienced in a more vivid way than they would have been on their own. In seeing the man dressed as a woman one becomes particularly aware of maleness and femaleness. This is rather like the way in which two complementary colors, like yellow and blue, appear more vivid when they are placed next to each other.

We are now talking about the *contents* of experience, rather than at the level of the metamotivational states that *interpret* experience. As we have seen, the latter operate in such a way that only one from each pair can be active in experience at a given time.

Synergies apparently contravene the Law of the Excluded Middle in logic which says that A must be either B or not-B. For example, a person cannot be both male and not male, an object cannot be both living and not-living, a place cannot be both in Europe and not in Europe. Whatever characteristic something has, it cannot at the same time have an incompatible characteristic. Things are what they are. In fact, technically, cognitive synergies for the most part do not contravene the Law of the Excluded Middle. For example, a man dressed as a woman is really a man and so there is no logical contradiction. But psychologically, rather than logically, synergies do represent a kind of contradiction: the man dressed as a woman is seen, uncomfortably or intriguingly, as possessing in some measure both male and female properties. Maleness and femaleness are brought together in this way.

When we are in the telic state we usually try to avoid synergies, which we experience as dissonances, incongruities, or contradictions. After all, when we are trying to achieve a goal that seems to us to be important, we do not want to be distracted by these kinds of games and puzzles. Furthermore, if they make achieving a goal more difficult – for example by introducing unnecessary ambiguities into the situation – then they will be experienced as annoyances, or worse. If you have to make a decision, ambiguity and contradiction are the last things that you want. If you are asking "Is this an incoming missile or an aircraft showing up on the radar screen?" you need to be able to make a decision. On the other hand, in the paratelic state, synergies may be experienced as delightful, fascinating, intriguing, provocative or surprising – in any case, in one way or another, as sources for excitement. It is for this reason that they become part of our everyday world, even being institutionalized in all kinds of culturally acceptable ways.

Types of synergy

One way of categorizing synergies is in terms of whether they are transitional or non-transitional.

First let us look at **Transitional synergy** (also called reversal synergy in earlier writings on reversal theory). Here, some salient property of an entity, or the entity as a whole, switches into something incompatible with what it was. The switch is so rapid that some of the first meaning carries over, and contradicts the new meaning. The most obvious examples include conjuring tricks in which a handkerchief turns into a dove, so that it seems for a bewildering moment as if the same entity is both handkerchief and dove. Another example would be a toy like a "Battlebot" in which a spaceship or a truck reconfigures into an aggressive-looking figurine. But synergies are often more subtle and widespread in experience, such as the moment at which you come into ownership of something desirable that you never thought you would own, so that for a short time you exult in seeing the object simultaneously as unobtainable and possessed. The effects of such synergies are typically rather brief, but may be powerful at the moments that they are actually experienced.

An important class of reversal synergies is that of ambiguities, where something is seen one way and then in another way, but where it is impossible to see it in both ways at the same time. The first time you

see the reversal effect it brings with it a kind of shock. Subsequently it continues to be fascinating. The same is true of reversal perceptual figures of the kind shown in most introductory psychology textbooks.

The second kind of synergy is **Non-transitional synergy** (also called identity synergy in earlier writings on reversal theory). Here the same entity can be interpreted in incompatible ways that can be experienced simultaneously. Typically this involves something purporting to be something else, so that what it really is and what it purports to be are experienced together. That is, such synergies involve a contradiction between appearance and reality, and typically call on people's ability to indulge in make-believe or to be complicit with pretense. Here are some everyday examples: someone you know wearing fancy dress as a pirate, a ventriloquist's doll, a *trompe l'oeil* painting on the side of a building, a model aircraft, a video game of a car chase, a bar of soap in the form of a fish, a restaurant whose décor suggests a Mexican village, a water pistol, a sandcastle, a scarecrow, a famous actor playing Hamlet, a shop window mannequin. In all such cases, something appears to be something that it is not.

Another way of categorizing synergies is in terms of whether they are single-identity synergies or multiple-identity synergies. In **single-identity synergies**, a single identity is the locus of competing properties – for example, the man dressed as a woman. In **multiple-identity synergies**, one or more synergies are brought together by being associated with a common property. These different identities, linked together in this way, produce tensions and clashes related to the ways that they differ. For example, in metaphor, one thing is linked to another through some similarity – for example, talking about a country as if it were a ship. Then the differences form a subtext that makes the metaphor more lively and intriguing than a straight descriptive statement about a country would be, these differences "playing off" each other.

These two ways of classifying cognitive synergies can be crossed with each other, as they are in the following table.

	SINGLE IDENTITY	**MULTIPLE IDENTITY**
TRANSITIONAL (involving succession)	Incompatible properties are brought together successively, or in alternation, in a single identity. E.g. different views of a single Necker cube.	Distinct identities are linked through sharing a common property, e.g. an amphibious car that can transform into a boat.
NON TRANSITIONAL (involving simultaneity)	Incompatible properties are brought together simultaneously in a single identity. E.g. Depth and flatness in a landscape painting.	Distinct identities are linked through sharing a common property, e.g. a toy plane and a real plane are linked through the laws of aeronautics.

Aesthetic synergies

One area of experience in which cognitive synergies appear to play an important role is that of art, especially in the appreciation of paintings and sculpture. Here are some examples of some different types of cognitive synergy used by artists in order to make their creations more interesting and pleasing:

Signifier/Signified Synergy

Normally when we depict something, e.g. in photographs in magazines, the photograph itself is transparent – we seem to look through it at the subject. But in art, the artist often draws attention to the artwork itself, making it to some degree "opaque" and thus causing a synergy – or a series of synergies - between the medium and the message. For instance, in a landscape painting, the painting itself is obviously flat, and yet it gives the impression of depth. Likewise, it is enclosed but gives the impression of space extending beyond it in all directions. Often it depicts some form of movement but is, itself, motionless. And in general terms it consists of paint and canvas which gives the appearance of something beyond itself, for example a person or place.

Empathy/Alienation Synergy

Some works of art take a subject matter which is repellent in some way, and transform it into something that is aesthetically pleasing, thus creating a tension between ugliness and beauty, or between something that the viewer is both attracted to and alienated from. Indeed, the most widely painted topic in the history of Western art – the Crucifixion – is a perfect example. But there are many others including graphic depictions of the deaths of martyrs, gory battle scenes, and destruction from flood, fire and other forms of catastrophe.

Ambiguity Synergy

The fascination of many works of art relates to the ambiguities that they display. From the Venus de Milo to Mona Lisa to some of the latest conceptual art, we keep looking because we are not quite sure what we are being shown or what we are supposed to make of it.

Metaphoric Synergy

Metaphor can occur not only in poetry but also in visual art, where the artist paints very different objects on the same canvas in ways that suggest that they have a visual similarity – flowing hair looking like smoke on the horizon, a pearl necklace looking like a mountain path in the distance, and so on.

Mass/Space Synergy (Coulson, 2001)

Space is experienced as having certain characteristics that one would normally only experience in relation to objects, e.g. in certain abstract modern sculptures, space seems to penetrate, or extrude, or itself have shape and presence.

In a series of experiments, Coulson (1995, 2001) showed that reactions to visual synergy are different from reactions to others kinds of complex, novel and incongruent stimuli. For example, visual synergies generated longer visual exploration time than other kinds of complex stimuli.

Humor as synergic

Another major area of experience that involves synergies is that of humor. In this case, it can be argued that the comic, whatever form it takes, necessarily involves cognitive synergy, albeit in a particular form. In other words, synergy here is not something that the comedian can, like the artist, choose to use or not: it is intrinsic to the comic situation.

In humor, we have a synergy between appearance and reality in which what is taken to be reality turns out to be (or is simultaneously recognized as) only an appearance. And the reality must, for humor to be experienced, be seen to be in some salient way *less than* the appearance. (This contrasts with art, where the reality is transcended by the appearance, e.g. the reality of a block of stone is transcended by the appearance of a beautiful figure. In art we are astonished and awed rather than cynical and disdainful.)

Comic characters, for example, display such synergies:

- Charlie Chaplin purports to be a gentleman (with his clothes, his gestures, and his manners), but in reality is a penniless tramp.
- Don Quixote purports to be a valiant medieval knight but in reality is an eccentric fool.
- Falstaff purports to be valorous and sexually irresistible, but in reality is a cowardly and fat old man.

In such cases we have non-transitional humor in that, once we have accustomed ourselves to the characters, we are able to enjoy the humor in the contradictions all the time we are observing them.

In contrast, in jokes we see transitional humor – what is said momentarily purports to say one thing and is then realized to have meant something quite different. For example:

- "No one goes to that restaurant any more because it is always too crowded." Momentarily this makes sense, but is then realized to be self-contradictory.
- "My wife and I were very happy for the first twenty years. And then we met." What appears to be a statement of appreciation turns out in reality to be a statement about disappointment.

A number of things are required to make an experience funny:

υ *A cognitive synergy*.   Without this, an experience may be entertaining or interesting in the paratelic state, but it cannot be funny.

υ *Downgrading.* The synergy must be of the appearance/reality form in which the appearance turns out to be less than the reality. Without this, in the paratelic state, the experience will be more likely to be aesthetic than humorous.

υ *The paratelic state.* Without this, and the protective frame that goes with it, a synergy will be experienced as annoying or worrying or offensive. The laughter of others may help to set up a protective frame and induce the paratelic state and make something funny that would not have been otherwise – hence the importance of audiences or of canned laughter.

υ *Arousal.* Without this, the experience may be interesting (as in puns and purely verbal humor) but will not be really funny. A joke form of synergy will itself produce an enjoyable 'blip' of humor in the paratelic state, but humor can be increased by adding in other sources of arousal (e.g. sexual or threatening) – provided that these do not damage the protective frame. The presence of an audience may not only help to maintain the protective frame, but also raise arousal and make things seem funnier.

Wyer & Collins (1992) asked subjects to read stories that appeared to be about one thing (e.g. sexual intercourse) but turned out to be about something else (in this case, getting into a jar of pickles). Humor was experienced only when the second interpretation was provided to subjects (creating a cognitive synergy of the transitional kind, with downgrading). Subjects who were told that they were going to have to evaluate the humorousness of the materials found them less funny than subjects who simply read them – which the authors take to mean that the former were more likely to be in the telic state because of the task requirements of the situation. Further experiments revealed, among other findings, that downgrading was humorous both in relation to semantic features (i.e. where words turned out to mean something different) and in terms of content (i.e. where the characteristics of some person, or thing, turned out to be different from what had been expected). Wyer and Collins also go on to argue that, in order to be funny, the information needs to be "worked on" cognitively and should therefore not be immediately obvious or straightforward, and should have a rich variety of implications.

Applying synergies

Understanding the nature of cognitive synergies can help us to become more creative by showing us how to construct our own synergies for our own purposes. When one needs to be innovative and inventive, it is useful to create deliberate synergies since these help us to escape from the normal assumptions of the situation and from the seeming 'logic' that prevails. Children are often good at this – pretending that a box is a motor car, using a stuffed toy like a football, painting a scene in which the sea is the color of tomato soup. But it is something that we can still call on in adult life, and can be useful when we get stuck in facing problems. For instance, most new inventions start life as synergies: "post it" notes are things that both stick and do not stick, cellular phones are like and unlike portable radios, digital cameras are in part camera and in part television set. We can also use synergies for rhetorical purposes. In this way we can make our communications – e.g. our e-mails – more arresting and persuasive. Particular use is made of synergies in political speeches (especially through metaphor) and in advertisements (as in animals that speak, washing machines that walk, cars that wink and smile). In more general terms, consideration of the importance of synergies encourages us not to shy away from ideas that may seem irrational or unnatural, but rather to embrace and use them.

There is another more subtle point here. This is that artificial intelligence systems will in the future need to be more able to make sense of the irrational, playful and fanciful features of human thinking and experience than they do at present. Without this, they will not be able to interact fully and naturally with human beings. Nor will they be able themselves to behave in a human like way. This means, among other things, that they will need to be able to understand the use that humans make of cognitive synergy in their interactions with each other, and to incorporate this feature in their own information processing.

SEVEN

CONCLUSIONS

Let us now pull together some of the threads that make up the fabric of reversal theory, draw out some of its broad implications, and position it in relation to other approaches in psychology.

Structural Phenomenology

Reversal theory shows that it is possible to identify structures within conscious experience. As in Gestalt psychology, some of these structures are part of the *content* of mental life, as in those kinds of experience referred to by the term 'cognitive synergy.' But more importantly (and going beyond Gestalt psychology), the structures of concern to reversal theory are structures that relate to *how* people experience rather than *what* they experience. In doing so, reversal theory is not only phenomenological (experiential), as explained in chapter one, but also structural. That is, it brings together two very different, even opposed, traditions in twentieth-century philosophy and the human sciences, those of structuralism and phenomenology.

Structuralists have studied the way that the products of human nature, such as language, myth systems and kinship systems, form structures in which the parts can only be understood in relation to each other. In contrast, phenomenologists have studied the way that the meanings in human experience can be studied through direct intuition. These approaches are therefore opposed in two ways. Firstly, In structuralism there is a tendency to look at human constructs from the outside, to be objective, whereas in phenomenology they are studied from the inside, and therefore subjectively. Secondly, according to structuralism the meaning of something can only be ascertained from its relationship to other things, while in phenomenology the meaning of something can be understood directly in itself. In reversal theory these two approaches are brought together through the basic insight: *conscious*

experience itself has structure. This approach is defined in reversal theory as **structural phenomenology.** It takes from structuralism the attempt to understand things as structures rather than as isolated qualities, and from phenomenology the attempt to understand experience itself and to concentrate on the meanings that the actors themselves assign to their actions.

Some methodological implications

In principle, the motivational styles identified in reversal theory are moderator variables that would need to be taken into account in almost any psychological study. Since they form an "internal context" to any situation, it may be critical to know what specific form this internal context takes in different respondents in order to make sense of results. For example, in an experiment on problem solving, it might be important to know which state subjects are in while they are performing, whether they differ from each other in this respect, and whether the states change in the course of the experiment. Without this information, the results may be meaningless or misleading.

Looking further at this example, it is possible that subjects in the telic state or the paratelic state perform the problem-solving task with different degrees of success, but when aggregated over both kinds of subjects, a meaningless average is obtained. Or subjects may have been grouped in terms of dominance scores, but actually all been in the same state during the course of the experiment itself. In this case, a conclusion along the lines that there was no difference between people with different dominances might be misleading. Even checking that people are in certain states at the beginning of a study may be misleading if people can change states during the study itself. As a general rule, then, reversal theory implies that ideally one always needs to know, through post hoc measures, which states respondents have been in during the course of a study (Apter and Svebak, 1992). Metamotivational states are unavoidable confounding variables that may be critical to understanding one's data.

A taxonomy of pathology

Picking up another of the threads that has run through this book, we might say that a person should be able to display the right state in the right way at the right time. Pathologies relate to inabilities to do one or another of these three things. Thus if someone is stuck in a given state, then there will be frequent times in their lives when this state is inappropriate. If someone cannot match their states to their situations they will likewise not fully benefit, and may even suffer, from such mismatches. And if they do not have the skills to consummate the state that they are in, they will again be likely to be unfulfilled and less than fully effective. This is summarized, with examples, in the following table.

GENERAL TYPE	SPECIFIC TYPE	EXAMPLES
ACROSS STATE	Inhibited reversal	Depression Chronic anxiety
	Mismatching to situation	Sexual dysfunction Agoraphobia
WITHIN STATE	Functionally inappropriate	Oppositional behavior Obsessional behavior
	Temporally inappropriate	Gambling addiction Avoidant behavior
	Socially inappropriate	Marital breakdown Bullying
	Legally inappropriate	Sexual perversion Petty larceny

Note that many of these types of problem can be combined. Thus one can be stuck in chronic anxiety in the telic state, and also engage in inappropriate behavior in this state, e.g. obsessional-compulsive ritual behavior or avoidant behavior. Or one can combine different types of inappropriate behavior, e.g. bullying and sexual perversion. In any case, the categories overlap in many ways. For example, the categories of socially and of legally inappropriate behaviors

overlap, since many things that are illegal also involve harming other individuals.

This way of looking at matters provides a taxonomy of psychopathology which is quite different from those that are currently widely used, such as the Diagnostic and Statistical Manual of the American Psychiatric Association.

The strengths of reversal theory

Here are some of the characteristics of reversal theory that researchers and practitioners have found appealing, and that might commend the theory to those learning about it for the first time.

<u>A new kind of theory</u>

Reversal theory is what one might call a psychological theory "in a new key." Rather than rejecting other theories in motivation, personality and the emotions, it shows how they can be fitted into different parts of a more complete and overarching structure. Its tendency therefore is to integrate and include rather than to disregard and exclude. In this respect, it operates at a higher level than other theories, and can assimilate them to its own broader spectrum. In other words, it is in some ways a kind of super-ordinate theory.

For example, from the reversal theory perspective one can see how other theories of personality and motivation emphasize different parts of the larger reversal theory structure. For example, the three main types of motivation investigated by McClelland can be seen as representing just three of the eight reversal theory states, need for achievement representing the telic state, need for power the mastery state and need for affiliation the sympathy state. Bandura's emphasis on self-efficacy can be seen as foregrounding only the autic and mastery states from the broader range of eight states. Similarly, other major theories of motivation can be assimilated to the more general reversal theory structure.

If we turn to the various theories that have developed as 'depth psychological' it can be argued that they each tend to concentrate on certain subsets of reversal theory's motivational states. The precise nature of the focus can be argued in each case, but, as illustration, arguments could be sustained for the following:

- Freud, especially in his early theorizing, concentrated on the somatic states
- Adler was most concerned with the mastery and sympathy pair of states
- Object-relations theories have tended to focus on the transactional states.
- Lacan's theorizing centered around the autic and alloic states.

In these ways, different theories can be shown as dealing with different parts of a larger picture. Likewise, if we look at other areas of theorization, such as management theory, we find that the various fashions and fads that have succeeded each other over the years have tended to focus on different metamotivational states. 'Management by Objectives' focuses on the telic and mastery states, for example, and 'Total Quality Management' on the conformist state.

The importance of change

At the same time, reversal theory adds something fundamentally new to the picture – the idea of reversal. As has been emphasized throughout this book, this means that people cannot meaningfully be categorized in static ways, as they are in type and in trait theories, but must be seen as continually 'on the move.' In particular, this means that people will be expected to be different from themselves even in the same situation or in the course of the same action.

Reversal theory therefore adds a further important principle of change to the two principles of (relatively irreversible) change that have been most investigated in the last hundred years – learning and development. It also interacts with them in various ways yet to be fully researched. For instance:

- What is reinforcing to a person at a given moment (e.g. loud music) may be punishing to that person at another moment, so that operant conditioning cannot depend on fixed reinforcers.
- Metamotivational states may become linked to situations through a process of classical conditioning.
- Different metamotivational states may come to the fore at different periods of child development.

A return to origins

By starting from conscious experience in all its analyses, reversal theory takes psychology back to its nineteenth century origins in the study of mental life. But it reformulates the questions that relate to mental life in a more dynamic, systematic and practical way than was the case with old-fashioned Victorian introspection. By returning to what made psychology distinctive, and established it as a separate discipline, reversal theory could help to protect the subject against its current twin dangers – reduction to biology on the one hand and sociology on the other.Whatever we are looking at – whether physiological processes, physical performance, personal relationships, roles or cultural practices - reversal theory grounds everything in mental life. To put it the other way round, it starts from subjective meanings and works outwards, in an 'inside-out' manner, towards whatever is being investigated.

It is true that there is a yawning gap developing between biological psychology on the one hand (including neurology, genetics, psychophysiology, ethology and evolutionary psychology) and sociological psychology on the other (including cultural, constructivist, discursive and linguistic psychology). But reversal theory has the potential to show how psychology can still be a viable and meaningful discipline that can stand its ground and resist assimilation in either direction. Indeed, in doing so it can show how psychology is able to bridge this divide. An excellent reversal theory example, showing how this can be done in a single study, is that of Svebak & Murgatroyd (1985). Subjects in a psychophysiology experiment were administered a psychometric test measuring telic dominance, and also interviewed about their previous day. The three sets of data – psychophysiological, psychometric and narrative – fitted together nicely in terms of the telic-paratelic distinction and were mutually supportive. Telic dominant subjects showed certain psychophysiological characteristics and also had certain narrative styles, while paratelic dominant subjects had different characteristics in both these respects. In this way, physiology and narrative could be mapped onto each other in a meaningful way.

A theory that really helps

The kind of micro-analysis of everyday life that is provided by reversal theory can be particularly helpful to people in understanding their own actions and dealing with their own psychological problems. It is significant that, generally speaking, clients of all kinds have no

difficulty in picking up the basic ideas of the theory and applying them to their own situations. That is, the theory seems to be intuitively obvious (at least to non-psychologists!). This is particularly true of the notion that we are not fixed in the ways that we interact with the world. People seem to resonate with the insight that the trait idea may often be too simple and that it frequently makes more sense to talk instead of states.

When it comes to helping people, whether their problems are about difficult family relationships, work, or health, the reversal theory approach avoids one of the problems that can arise when the first step is to take a standard personality test. The reason is that measures of personality traits, especially when interpreted in a heavy-handed way, seem to imply: "This is how you are, and you will therefore have to work within these limits." The reversal theory approach, by contrast, points out: "If you can be different from your usual way of being for some of the time, then you can be different more of the time. You are full of possibilities." In this way it downplays the idea that change is difficult. Furthermore, it encourages the notion that to be mentally healthy is, paradoxically, to be unstable: not only can we change, but we need to change. This is not to deny that people display certain kinds of consistencies, especially at the cognitive level, and that it is useful for them to be helped to recognize these. But it is to suggest that if we look at such consistencies alone we may miss some of the most important things that are happening in their lives. As counselors and consultants, this means that we may fail to take full advantage of the opportunities we have to help them.

Questions and more questions

Perhaps the principle significance of reversal theory is that it comes at things "from a different angle" from other more traditional theories, and in doing so it opens up new vistas for research and application. If the most important quality of a theory is that it leads to new questions for research and new possibilities for application, then reversal theory would seem to have much to contribute indeed.

Summary: The basic ideas

Here is a summary of the fundamental ideas that go to make up reversal theory. These can be captured in the following ten propositions that are stated here in non-technical language. In the course of the book

these propositions have been introduced, discussed and justified with illustrations, supported by reference to some of the research that has been done on the theory, and shown to have valuable application in a number of areas.

- Conscious experience has structure and this structure is the same for everyone.
- The structure is based on eight different values, each represented by a specific motivational state.
- These motivational states underlie different styles of seeing the world, acting in it, and responding to it emotionally.
- Each value is opposed by an incompatible value, meaning that there are four pairs of opposites motivational states.
- People change during their everyday lives by reversing under different circumstances between these opposite states.
- One motivational state from each pair of opposite states will be active at a given moment, and normally one or two of the active states out of the four will be focal in experience at that moment.
- People have innate biases towards one or other member of each pair.
- All the motivational states, and the conscious structures that go with them, are essential to healthy living and to contributing fully to the lives of others.
- Pathologies may arise when the movement between motivational states is blocked, when there is a mismatch between states and situations, or when states are expressed in inappropriate ways.
- It is possible to experience identities (people, objects, situations) as having contradictory qualities, and these experiences have special psychological properties.

A personal note to the reader

These basic ideas have been developed and elaborated for a variety of purposes in a variety of publications. I hope that the present brief introduction will have stimulated a desire to turn to some of these other texts in order to develop a deeper understanding of reversal theory. Even more to be hoped for is that you might be interested in starting to use and develop the ideas of the theory for your own purposes. In this manner you might be able to test it directly for yourself, and perhaps "make it your own" in a creative, relevant, and practical way.

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Reversal Theory is a distinctive theory of personality, motivation and emotion that focuses on the way people change during the course of everyday life. (www.reversaltheory.org)

This book provides an accessible introduction to the theory, organised around its key concepts. Each chapter explains and illustrates one such concept, indicates related research, and notes ways in which the concept has been applied in practice.

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