SYSTEMATIC
PRINCIPLES
OF
HUMAN
MOTIVATION

By Michael L. Stratil, Ph.D.
Department of Psychology
Pembroke State University
Pembroke, North Carolina

INTRODUCTION

Psychological theories of motivation suffer from fragmentation and ambiguity. Most theorists have focused on a narrow range of issues and have failed to place their ideas in any kind of comprehensive perspective. Moreover, their terminology is often vague and circular. Since textbooks almost always perpetuate these problems, students have had unnecessary difficulty in comprehending theoretical principles and applying them to classroom issues.

The present booklet attempts to remedy these problems in three ways.[1] First, it systematically integrates concepts and principles from a variety of leading theorists. Its major sources have been Sigmund Freud (1966), Carl Rogers (1959; 1961), Albert Bandura (1969), Victor Vroom (1964), Robert Plutchik (1980), David Ausubel (1963), Leon Festinger (1957), Irving Janis (Janis & Mann, 1977), Richard Lazarus (1966), James Miller (1976), Harold Kelley (1967), and John Atkinson (1964). Excellent summaries of some of these works can be found in Hall and Lindzey (1970) and Steiner (1980). Using systems theory as an overall framework, the booklet attempts to show how such psychological phenomena as emotion, cognition, and coping can be understood as part of a complex information processing system. Like the theories that it reflects, the booklet contains many speculative ideas. But every principle is supported by at least some evidence from experimental or naturalistic observation.

Second, the booklet presents precise definitions of all major concepts. Most of the terms have an established usage that corresponds roughly to the definitions I have given them. But in integrating diverse and sometimes conflicting terminologies, I have found it necessary to sharpen and adapt many terms. Occasionally it has been necessary to coin a term (e.g., sentia, retensification) to fill existing gaps. Rather than attempt to memorize all of these terms, you should concentrate on grasping their core meaning.

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1. In order to minimize the booklet's financial burden on you, I have requested that the bookstore not add the regular author royalties to its price.

Third, the booklet provides a more thorough treatment
of ideas that you may have encountered in other courses.
It has been designed as a richer and deeper study of the
general framework introduced in Introduction to Social
Psychology (PSY 216), Psychology of Leadership (PSY 316),
and Psychology of Social Communication (PSY 317).

Because the booklet condenses so much information,
you will undoubtedly find it challenging. I therefore
suggest that you prepare yourself to exert genuine effort
in mastering it. You will need to read it several times
and to pay close attention to our discussions of it in
class. To help you focus your efforts, I have prepared
a set of study questions (see Appendix A) that cover all
the material to be tested directly from the booklet. If
you master these questions, the course will fall easily
into place for you. As you proceed, remember that the
psychology of motivation is inherently a difficult
discipline. Yet it offers a unique opportunity to gain
insight into people and to increase our control over
our destiny. There is no way we can have these benefits
without diligent study.

OVERVIEW: THE PSYCHOLOGICAL SYSTEM

The primary substrate of all psychological responses
is a collection of highly specialized peripheral and
central tissues capable of performing the unique function
of propagating neural impulses. In the present context,
the sum of these tissues will be called the psychological
system for the simple reason that our analysis approaches
its subject matter primarily from a molar functional per-
spective rather than from an anatomical or molecular
physiological perspective. But it should be understood
that "psychological system" and "nervous system" refer
to the same ultimate reality.

The fundamental premise of the present framework is
that psychological structures and activities constitute
an information processing system specially adapted for
controlling muscular and glandular activities in a way
that tends to promote species survival. In analyzing the
most general implications of this premise, consider that
a system can be defined as a set of two or more functionally
dissimilar structures whose causal interrelationships enable
them to perform a given type of complex process on a given
type of input. The intent of the major premise is thus
to imply that the psychological system contains a variety
of distinct, permanent components, that these componets

operate in an interrelated fashion, and that their overall function is to process information possessing adaptive significance to the person. These implications can be further explained through the following five subordinate premises.

Forms of Information Processing

1. The psychological system is capable of performing each of the three known forms of information processing. The first form of processing, which is coding, occurs when a given quality is replaced by another quality in a manner that is both repeatable and reversible. For example, a simple military code might translate letters into numbers: A→1, B→2, C→3. The sequence ABC would then be written 123. Such a process qualifies as coding because it is repeatable (the same letters are consistently replaced by the same numbers) and reversible (the numbers can be translated back into letters). In psychological coding, external physical qualities like red are transformed into the biochemical qualities of neural activity. Although psychological coding is not always spontaneoulsy reversible, it is always theoretically capable of such reversal (e.g., through the auxiliary coding mechanisms of scientific measurement and analysis).

The coding process exists in two distinct forms. Discrimination is the process by which two or more dissimilar initial qualities are coded into correspondingly dissimilar new qualities. The general illustration presented above was an instance of discrimination because mutually dissimilar letters (A≠B≠C) were coded into mutually dissimilar numbers (1≠2≠3). By contrast, generalization occurs when mutually dissimilar initial qualities are coded into mutually similar new qualities. This would occur if A→1, B→1, C→1.

The second basic form of information processing, preservation, consists of causing a given body of information to continue existing over time. There are two distinct modes of preservation. In retention, information is preserved by means of special system changes initiated spontaneously by normal coding operations. Thus, a computer retains information by means of the reader-induced electrical changes that occur in one of its special components. In the psychological system, retention involves stimulus-induced changes in the shape and biochemical activity of certain neurons. The sum of the neural structures and processes that retain a given body of information is called a trace. A psychological capacity that is based on traces will be referred to as acquired.

Once a trace has been established, it can serve not only to retain the content of its particular stimulus but also to code the content of other stimuli. In this way, information from a past stimulus can be used to code a current stimulus. Certain distortions are often produced during such coding. Assimilation occurs when a given stimulus is coded into memory in a way that exaggerates its similarity to the information contained in a given existing trace. For example, you might use a memory trace of your car to code the sight of someone else's car, which would cause you to mistakenly interpret the other car as your own. Dissimilation occurs when a given stimulus is coded into memory in a way that exaggerates its dissimilarity to the information contained in a given existing trace. If you see someone else wearing your shirt or blouse, you may fail to code it as one of your possessions because of your inclination to assume that everything worn by that person belongs to him or her.

The second mode of preserving information is more permanent. Perpetuation occurs when information is incorporated into the template that directs the development of a given class of information processing systems. Psychological perpetuation operates through the genetic inheritance of stimulus-response patterns. That is, the adaptive significance of a given ancestral mutation is coded into the gene pool through natural selection; the perpetual transfer of genes from one generation to the next then functions as a mechanism for preserving this information indefinitely. Since genes direct the development of neural tissue, they function in effect as the templates from which new psychological systems are developed. An inherited psychological capacity will be referred to as primitive. This choice of terminology is not meant to imply that inherited capacities are simple, only that they are based on ancestral information.

The third basic form of information processing, transmission, is the process by which information comes to exist in a new substance or at a new location. As is well known, the psychological system performs transmission by means of a specialized chemical reaction, called an impulse, that first moves along a neuron in the form of fluctuations in membrane permeability and then passes from one neuron to another through the release of neurotransmitters. The psychological system's capacity to transmit information enables it to integrate information from diverse sensory modalities and from different retentive structures.

Primary Psychological Differentiation

2. The <u>psychological system is differentiated into five distinct subsystems: sensory, memory, emotional, and intermediatory.</u> Each of these subsystems serves a specialized function. The sensory structures use receptors like the eyes and ears to code the physical qualities of an external stimulus into a primitive neural format. The memory structures retain information by means of special interneuron associations. The emotional structures provide primitive coding and perpetuation of information about the adaptive significance of stimuli. The motor structures produce physical activity. Finally, the intermediatory structures are transmission channels that connect the other subsystems with one another. As shown in Figure 1, the psychological system contains many forms of feedback. Feedback can be defined as an event that is caused by the activity of a particular structure and that is directed back toward that structure in such a way as to influence the structure's future activity. In addition to feedback from the motor structures to the sensory structures, there is also a very important form of feedback between the memory and emotional structures.

Phases of Psychological Processing

3. The <u>psychological system processes stimulus information in three phases; enception, retention, and expression.</u> Enception consists of all inwardly directed coding and transmission processes. As we have already stated, retention is a stationary phase that occurs in the memory structures. Finally, expression consists of all outwardly directed coding and transmission. Note that the sensory structures function only during the enceptive phase, while the motor structures function only during the expressive phase. The memory and emotional structures function during both phases.

Informational Capacity

4. The <u>psychological system is capable of processing information at the simple, relational, and configural levels of complexity.</u> A simple quality consists of a homogeneous stimulus capacity. A red light is such a capacity because its electromagnetic energy is relatively homogeneous in the effect that it produces on the eye. An example of psychological processing at the simplest level is thus the coding performed by a specific rod or cone in the eye.

At the next level of informational complexity, a relational quality consists of a similarity or dissimilarity
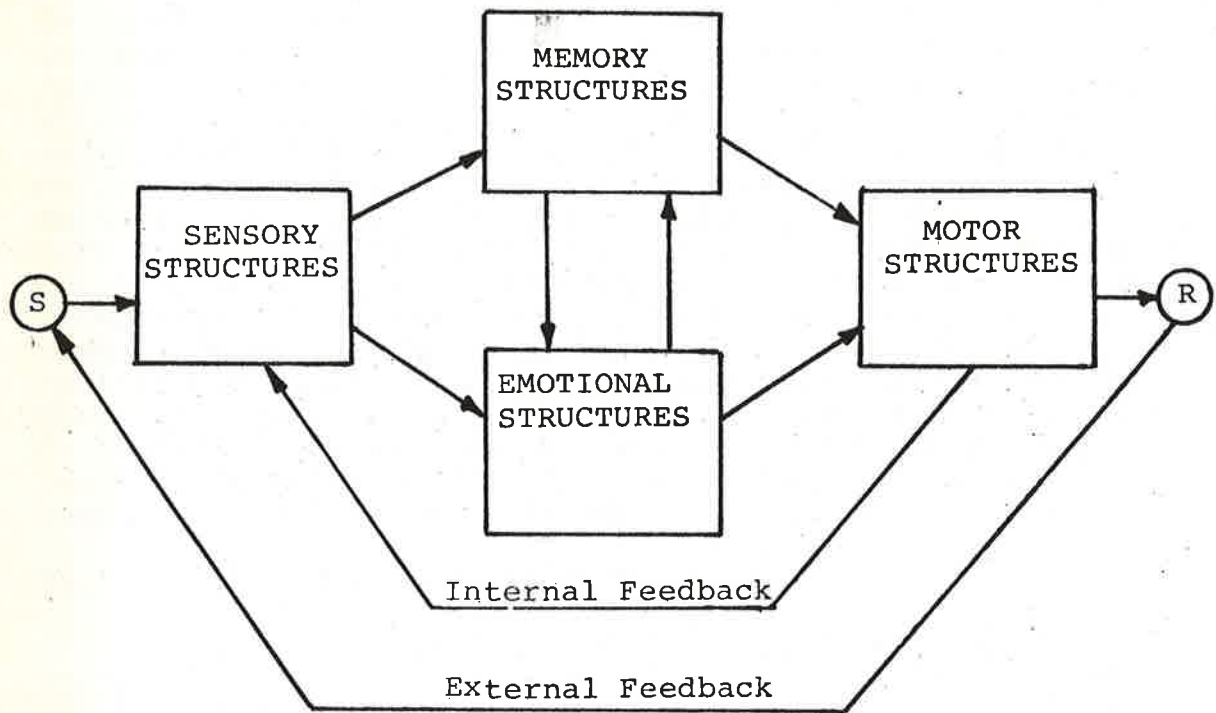
Figure 1. Major components of the psychological system.

between two or more simple qualities. Two red lights located one meter apart possess a relationship of similarity in that both are red and a relationship of dissimilarity in that each emanates from a different location. The psychological system codes similarity relationships partly by means of functional similarities in neurons (e.g., all specialized "red" cones contain the same visual pigment). Likewise, dissimilarity relationships are coded by means of functional dissimilarities (e.g., the spatial specialization of cones in the retina and their corresponding cortical neurons).

Finally, a configural quality is the holistic totality of two or more simple qualities and their interrelationships. It is thus a combination of the two simpler levels of information, such as the two red lights described above and their interrelationships when processed as a coherent stimulus. The total psychological process that codes, retains, and transmits a given body of configural information is called a cognition. The intent of this definition is to emphasize that cognitive capacities are inherent in the very anatomical organization of the psychological system. Consider, for instance, the coherent physical parallelism between retinal coding and related projections into the visual cortex. It is clear that vision does not process just simple qualities but rather holistic configurations. Cognitive processing is analogical in that stimulus information undergoes such extensive coding that no obvious physical resemblance remains between the stimulus and its cognition. But it is still representational.

Differentiation of Cognitive Traces

5. Cognitive traces are differentiated by level of organizational function and level of abstractness. Several contemporary cognitive theories have emphasized the importance of organizational function as a dimension of analysis. Along this dimension, a unit can be defined as a cognitive trace that possesses sufficient internal strength to process a relatively familiar stimulus configuration in a variety of stimulus contexts without sustaining degradation. Thus, the semantic unit pool is capable of contributing to the comprehension of such distinctive sentences as HE IS SWIMMING IN THE POOL and THERE IS A POOL OF BLOOD ON THE FLOOR without undergoing critical modification of its semantic content.

At the highest level of organizational function, a formulation is a set of units that process a relatively unfamiliar stimulus configuration by means of a set of relatively weak interunit associations. The sentence HE IS SWIMMING IN THE POOL would thus be processed by a

formulation containing six distinct semantic units held together by a temporary associative network. The existence of different levels of organizational function in the retention process suggests an implication of fundamental importance. By integrating units developed at different times and locations, the psychological system is capable of reorganzing information in creative ways. It can thus formulate such interesting cognitions as a literary fantasy, a scientific hypothesis, and a speculation about one's own death. By the same token, however, it can also formulate erroneous cognitions capable of misdirecting behavior.

The other principal dimension of cognitive analysis is level of abstractness. At the lowest level, a concrete cognitive trace represents a stimulus in terms of the stimulus' direct sensory qualities. Thus, the image of a friend's face is concrete because it represents the face's qualities in a manner that is experientially similar to the face's original appearance, with relatively little omission of detail. At the highest level, an abstract cognitive trace represents only the qualities that a class of stimuli possess in common. The concept friend, for example, represents only those qualities that are shared by all friends. In other words, the concept omits all of the ideosyncratic qualities manifested by the different individuals who served as stimuli during its development. One should keep in mind that the distinction between concrete and abstract cognition is relative. There are probably many cognitive traces that exist at various intermediate levels of abstractness. It is also possible that all images possess at least some abstractness. Nevertheless, the distinction has two important implications. First, it suggests the possibility of cognitive traces whose content transcends the limitations of any given particularized stimulus. Second, since both imaginal and conceptual traces can be used to code a given stimulus, it implies the likelihood that significant conflict will arise between these two levels of processing.

Organizational function and level of abstractness are independent dimensions of cognition, such that they can be combined into the twofold typology shown in Table 1. A concrete unit, such as the well consolidated visual memory of a specific person's facial features, is called an image. Several images can be combined into a concrete formulation (e.g., a visual fantasy of someone riding a bicycle over a wooden bridge), which will be termed an imaginalization. An abstract unit, such as the generalized memory friend, is called a concept. Several concepts can

Table 1. Typology of Cognitive Traces 9

Level of Abstractness

	Concrete	Abstract
Unit	Image	Concept
Level of Organizational Function Formulation	Imaginalization	Conceptualization

be combined into an abstract formulation (e.g., <u>My friend</u> <u>is riding a bicycle over a wooden bridge</u>). The latter is termed a conceptualization.

In the next section, we will examine the emotional components of motivation in greater depth.

EMOTION

The function of emotion is to integrate all forms of available information about response consequences, code that information according to various ancestral criteria of adaptiveness, and then differentially facilitate the performance of favorably coded responses by other subsystems. It is thus the core mechanism for determining whether a stimulus is "good" or "bad." Note that the activation of a memory trace can be a response consequence. This implies that emotion controls trace activation as well as motor responses. Emotion is divided into three types of components.

The Hedonic Arousal Component

It would be impossible for each individual to learn how to discriminate all beneficial stimuli from all detrimental stimuli in a single lifetime. For example, a man would die of starvation or poisoning before he could try out more than a very limited number of potential sources of food. The psychological system requires some innate criterion for making this decision--some repository of ancestral information about the kinds of stimuli that have generally facilitated the survival of the species. In the present analysis, this function is performed by the hedonic arousal structures--which primitively code the adaptive significance of stimulation through intense, semi-enduring discriminative responses. In saying that their coding is primitive, I mean that they only respond to certain genetically predetermined classes of stimuli. Some respond only to the taste of fresh food, for instance, while others respond only to the smell of rotten flesh. Let us consider the two general and seven specialized types of hedonic structures.

Pleasure. Pleasure is a general type of hedonic response excited by species-adaptive primitive stimuli. This certainly does not mean that pleasure is always adaptive at the individual level. A wealthy American male may experience considerable pleasure from eating a 12-ounce sirloin steak every night for dinner, even though his resulting overweight and high cholesterol may cause him to die prematurely from a coronary attack. At the species level, however, steak has been quite adaptive over the course of evolution because of its high nutritional value.

There are three specialized forms of pleasure. Sentia is excited my various types of sensory stimulation that have frequently accompanied need-reduction and procreation during the species' evolutionary development. This includes things like food, water, moderate temperature, sexual contact, and so on.

The second form of pleasure, **elation**, is excited by primitive success cues. Robert White (1963) has found substantial evidence that infants experience pleasure in using their capacity to control the environment even when no tangible rewards are received. A baby may thus smile when he or she succeeds in hitting a rattle and hearing its auditory feedback. There has traditionally been a problem in explaining such pleasure, because we have not been able to imagine how a highly diverse class of events like success could be primitively coded. But the present framework suggests that we can solve that problem by using relative gratification as the criterion of success. Thus, I propose that a special coding structure produces a success cue whenever an act actually attains the gratification that was anticipated in its motivation. This success cue in turn excites elation.[2]

Lastly, **animation** is a moderate form of pleasure excited by the mere presence of <u>any</u> type of sensory stimulation (whether intrinsically positive or negative). It is described as mildly pleasurable because people often strive to increase it up to a moderate level, but they avoid further increases when it is already at very high levels. This pattern can be explained by assuming that animation itself is always pleasurable but that it tends to excite fear at high levels. Animation helps us cope by sending diffuse excitation to many other psychological structures.

<u>Distress</u>. Just as the environment is not exclusively beneficial, our hedonic responses are not exclusively

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2. More specifically, this special coding structure is initially activated by an **exertion cue** (which exists whenever the person is making an effort to attain a goal). This allows it to code the intensity of anticipatory gratification (which is the level of gratification that exists <u>during</u> exertion). The termination of the exertion cue then <u>allows</u> the structure to code the intensity of consummatory gratification (which is the level of gratification that exists <u>after</u> exertion). From this information, it produces a success cue whenever there is an adaptively favorable hedonic pattern (i.e., one in which consummatory gratification is equal to or greater than anticipatory gratification). This proposal would allow elation to be aroused by non-tangible success, since gratification can come from small increases in animation and decreases in fear.

pleasurable. Distress is a general type of hedonic response excited by species-maladaptive primitive stimuli. This has four specialized forms. Deficia is excited by increases in various tissue needs (e.g., the need for food and water). After we have gone sixteen hours without food, for instance, we experience intense hunger, which is a type of deficia.

Second, noxia is excited by various types of stimulation that have directly caused poisoning and tissue destruction during the species' evolutionary development. Like sentia, it is composed of several distinct subclasses. One of these, repugnance, is excited by the taste or odor of poisons. Another, pain, is excited by stimuli that destroy free nerve endings. The general function of noxia is to motivate instinctive escape from detrimental stimuli upon immediate physical contact with them.

The third form of distress is the opposite of elation. Frustration is excited by primitive failure cues, which are produced whenever an act fails to attain the gratification that was anticipated in its motivation. This emotion performs a very important coping function because it puts pressure on us to cease performing nonrewarded responses. Without it, we would persist in futile acts long after there was any possibility of reward.

The last form of distress, fear, is excited by primitive danger cues and inhibited by primitive safety cues. Some primitive danger cues consist of sensory patterns that often accompany danger--such as an object making irregular movements (like a snake), an object making a rapid approaching movement (like a wolf), a relatively large object (like a bull), a loud, irregular, or complex noise (like the shriek of an animal under attack), and situations manifesting extended vertical depth (like a cliff). Research has shown that all of these patterns possess the capacity to excite fear even when the organism has not had any prior contact with them (Marks, 1969). The excitation of any of the other forms of distress appears to be a special danger cue that activates only the associative control structures for fear. Thus, the arousal of deficia, noxia, or frustration causes traces for accompanying cues to acquire excitatory associations to the hedonic structure of fear. If a certain face has repeatedly been paired with shock (which excites noxia), for example, then the face will soon become a fear-exciting stimulus. It is not certain that there are any primitive safety cues, but evidence suggests that the existence of an ongoing pleasurable response may be one.

Note the difference between fear and noxia. Whereas fear is excited by evidence of impending contact with a detriment, noxia is generally excited by actual contact with a detriment. Admittedly, there are some noxious stimuli (e.g., rotten meat) that give off warning cues (e.g., a sickening odor) capable of exciting noxia before physical contact with the detriment has been made. But such exceptions always involve odor, which is usually given off by substances that are relatively near to the recipient. By contrast, fear is excited principally by visual and auditory cues, which are usually found at a greater distance from the recipient. The major function of fear is thus to motivate the avoidance of potentially detrimental stimuli without the necessity of immediate physical contact or prior personal experience with the stimuli.

Pleasure and distress can be both increased and decreases. For the sake of economy, let us categorize these four possibilities in a way that reflects their motivational significance. We can say that gratification results from either an increase in pleasure (eating an ice cream cone) or a decrease in distress (having a painful corn removed from one's heel). Any stimulus producing these effects is positive. Similarly, disgratification results from either a decrease in pleasure (loss of an ice cream cone) or an increase in distress (gain of a thorn in one's arm). Its stimulus is negative. The quality of being positive or negative is called stimulus valence.

Our analysis so far has concentrated exclusively on primitive sources of hedonic stimulation. This category includes all stimuli, whether external or internal, that possess the capacity to evoke a hedonic response through genetically predetermined pathways and coding mechanisms. But hedonic arousal can also result from the activation of memory traces that have been associated to hedonic structures. This fact is very important theoretically, since it implies that we are not slaves to the evaluative patterns established by evolutionary experience. Although clearly constrained by these patterns, we also have considerable freedom to expand and redirect them through individual learning experiences. The next major component of emotion contributes significantly to the power of that learning process.

The Associative Control Component

A specific trace becomes associated to a specific hedonic structure when both are active at the same time.

Pavlov's dogs thus learned to associate sentia to the sound
of a bell because the sentia response occurred simultaneously
with the auditory response to the bell. This process may
seem straightforward at first, but research has uncovered
a major complicating factor. The association between a
trace and a given hedonic structure is not always excitatory
(response intensifying). Traces can sometimes exercise
an inhibitory (response weakening) effect. I therefore
propose a set of associative control structures that give
traces the same type of hedonic function as that possessed
by the stimulus conditions with which they are paired.
Thus, these structures give an excitatory function to
traces paired with increases in the intensity of a given
hedonic response. Likewise, they give an inhibitory function
to traces paired with decreases in the intensity of a given
hedonic response. A green light paired with decreases in
fear, for instance, will produce a trace that inhibits
fear.

The Regulative Component

     Once the adaptive significance of a stimulus has been
hedonically coded, the system needs a way of using that
information to select the most appropriate response toward
the stimulus. This function is performed by the regulative
structures. Thus, the regulative structures selectively
modulate the activity of other psychological structures
in a way that differentially facilitates the enception of
positive over negative stimuli and the performance of
species-adaptive over species-maladaptive motor reflexes.
Consider how they promote the enception of positive stimuli.
The regulative structures perform this function in two
ways. At the simplest level, they transmit excitatory or
inhibitory impulses to the motor structures in a manner
that produces certain types of reflexes. This process is
rigidly predetermined by genetic forces because the trans-
mission channels involved are entirely primitive. When
food is placed in our mouths, for instance, we automatically
salivate. In this case, the excitation of sentia causes
excitatory regulation to be sent to the glands controlling
salivation. Most primitive regulation is directed toward
autonomic responses which occur in the glands and smooth
muscles (e.g., stomach and heart).

     A much more complex and flexible form of regulation
is directed toward memory traces. Retensification is a
process in which traces receive excitatory regulative
feedback, whereas repression is a process in which they
receive inhibitory feedback. Since traces are acquired
from individual experience, the transmission of regulation

is not rigidly predetermined by genetic forces. But it does conform to the following three basic principles.

First, positive traces receive retensification. If a child has a positive trace for ice cream, then retensification will keep that trace in an active state. Because the trace remains active, it tends to transmit excitation to other traces that are associated with it. The traces for ice cream may thus send excitation to traces for actions that would enable the child to obtain an ice cream cone. These associated traces are then hedonically coded on their own merits, and retensification is shifted toward one of them if it produces more gratification than the trace for ice cream. In other words, the person's attention may shift away from cognitions about a goal toward cognitions about how to attain the goal. This process can influence the type of external stimulus the person subsequently encepts. Thus, the child may ask for and receive an ice cream cone. In this case, the original memory trace for ice cream will have been replaced by stimulation from an actual ice cream cone.

Second, negative traces receive repression. For example, a child's memory trace for the taste of castor oil will lose attention because the repression it receives will decrease its activity level. As a result, its associated traces for action will also receive less excitation, which will decrease the tendency to seek ingestion of castor oil.

Taken at face value, these principles of hedonic regulation might suggest that people are unable to attend to memory traces that possess a negative valence. But to deal properly with the complexities of that issue, we must consider a third principle. In general, the regulative structures retensify and repress individual traces in a way that optimizes the net valence of all active traces taken as a whole. This indicates that a negative trace may receive excitatory feedback if it belongs to a larger associative network whose overall valence is positive. For example, other things being equal, a trace cognizing a personal academic failure would be repressed by feedback from frustration. But if the person possesses a strong value for prudence, he or she will probably think about the failure in the context of other traces that cognize actions that could be taken to avoid a repetition of the failure. In other words, the gratification obtained from prudently coping with the aftermath of the failure may override his or her desire to ignore the failure. This point has

important implications for the development of maturity.
To be able to deal effectively with difficulties, we must
go beyond the self-indulgent fantasy life of children and
channel our gratification into stable values for various
aspects of self-discipline.

The major features of trace regulation are summarized
in Figure 2. Information about an external stimulus (S) is
coded by the sensory structures and then sent simultaneously
to the memory and hedonic structures. If the stimulus
increases hedonic arousal, then its trace acquires an
excitatory function from the associative control structures.
If it decreases arousal, its trace becomes inhibitory.
The excitation of a hedonic structure activates a related
regulative structure, which transmits retensification to
positive traces and repression to negative ones. This
feedback may indirectly activate a trace for action, which
will express itself through the motor structures in the
form of an operant response (R). Finally, the operant
response may produce external feedback that changes the
original stimulus.

In the next two sections, we will divide cognitive
traces into two major classes on the basis of their differ-
ences in function. One class serves primarily as an extension
of the emotional structures, while the other can be considered
an extension of the sensory structures. We will attempt
to understand the developmental forces producing this
differentiation as well as the impact that it has on the
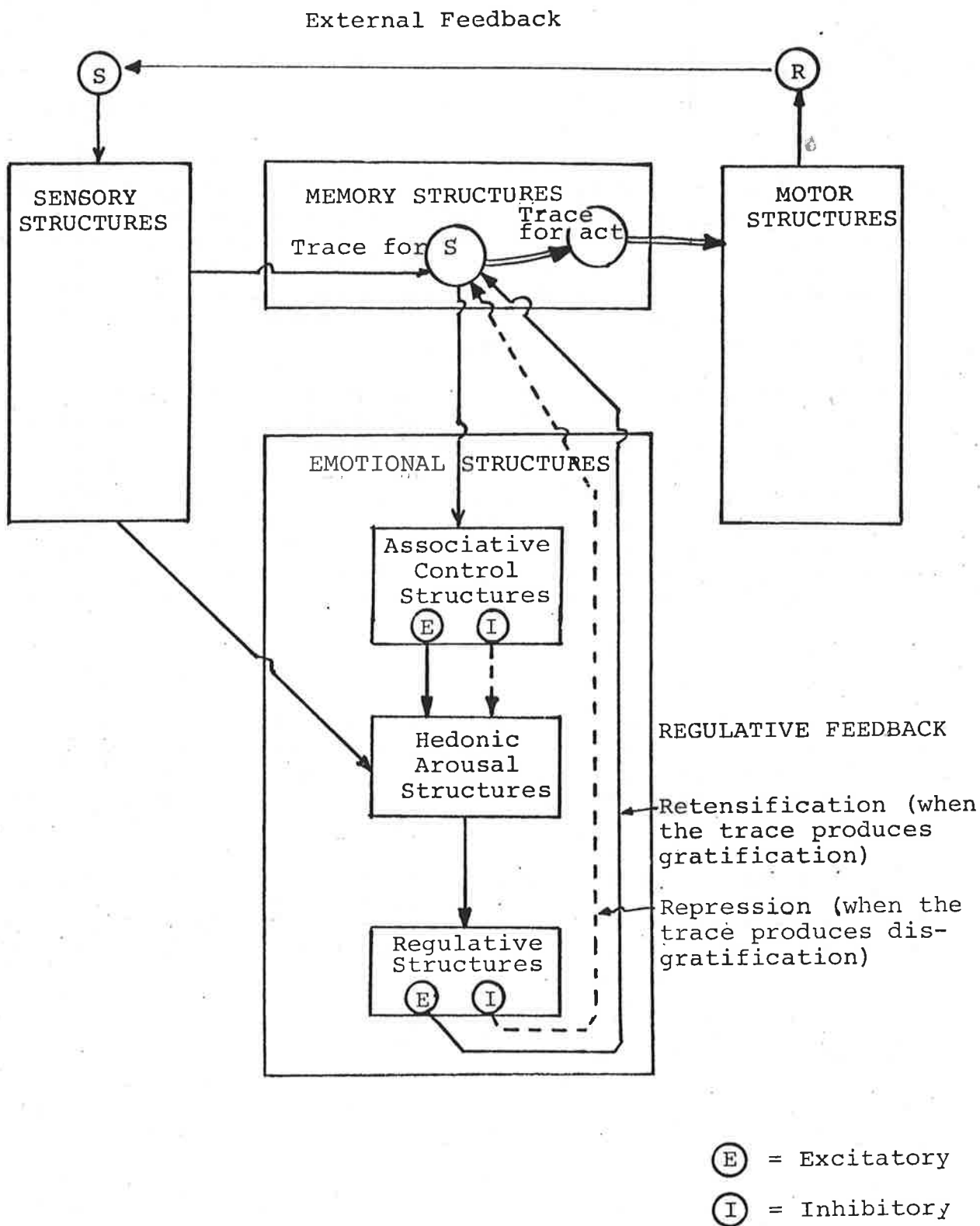psychological system's capacity to process information.

External Feedback

Figure 2. The emotional regulation of traces.

IDEALIZATION

An idealization is a specialized set of permanent traces that (a) reliably reproduces the type of hedonic arousal with which a given type of stimulus information has been previously paired and (b) then transmits regulative feedback to other traces relevant to that information. It is thus an acquired extension of the emotional structures that processes personalized information about a stimulus' adaptive significance. As shown in Figure 3, an idealization develops when a stimulus produces a cognitive trace of its content at the same time that it evokes a hedonic response. The simultaneity of these two responses causes an association to develop between the cognitive trace and the hedonic structure. The more numerous are the pairings of these responses, the stronger will be the association. It can be seen that an idealization contains two distinct components. The cognitive component is a representation of the stimulus, while the association between the cognition and emotion, called a bond, serves as a transmission channel.

Level of Abstractness

The basic differentiation between imaginal and conceptual processes that was discussed earlier plays an important role in idealization. A concrete idealization is called an idolament (from "idol" and "idolatry"). Most people possess an idolament for the facial features of a loved one. This means that they have a facial image that has acquired a bond as a result of its repeated pairing with hedonic arousal. An abstract idealization, like love, is called a value. Many values develop out of idolaments. Thus, after a girl has acquired a series of idolaments for all of her family members and their principal affectional responses toward her, she begins developing the concept love as an abstraction of the qualities common to all of these idolaments. Since such a concept never loses its associations to the original idolaments, it automatically acquires their bonds. In addition, of course, a value can acquire its own bonds through new learning experiences in which it is directly paired with gratification.

The Major Human Metadrives

One of the important challenges of contemporary psychology is to explain the striking motivational differences between humans and other mammals. Why do we work for years to obtain abstract goals? Why are we willing to fight wars to defend our national honor and expand our
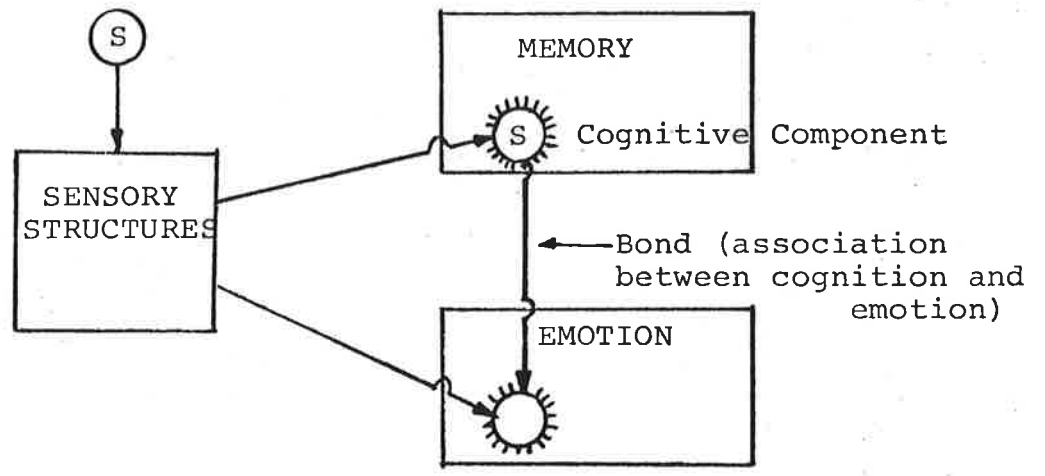
Figure 3.   The development of an idealization.

national power? Why do we seek approval and recognition?
These questions are especially troublesome in light of the
fact that human emotions appear to be very similar to the
emotions experienced by other mammals. If our distinctive
motivational differences do not come from the emotions,
where do they come from?

The concept of metadrive helps us to answer these
questions. A metadrive is a universal quality in the
environment or cognitive processes of a given species that
tends to produce certain general idealizational similarities
in all members of that species. Note that the qualities
considered to be metadrives are non-emotional (hence the
term "meta-drive"). As the definition implies, a metadrive
influences--but does not completely predetermine--the content
and valence of a species' average idealizations. This allows
for individual differences resulting from unique learning
experiences. Let us briefly examine each of the five major
human metadrives.

Controllable Consequation. A consequence is some
phenomenon that directly or indirectly influences an organism's
gratification and fulfillment of tissue needs. This definition
is broad enough to include everything from the availability
of ice cream to the loss of a book. Note that a consequence
is more than the mere existence of a substance; it is the
relationship between a substance and a given organism. The
loss of a book is a consequence for the owner even though
the book itself continues to exist. An advantageous
consequence is called a benefit, while a disadvantageous
one is a detriment.

Consequences differ in their controllability. The
sun's energy is a great benefit, yet we have practically
no control over its basic availability. On the other hand,
the growing of food is something that we can directly
control through our actions. Consistent with this distinction,
a reward can be defined as a benefit that is produced by a
prior response on the part of the organism that receives
it. Similarly, a punishment is a detriment that is produced
by a prior response on the part of the organism that
receives it. A consequence can be considered controllable
even when the causal connection between it and a preceding
response is indirect. A sales manager is thus considered
to have been rewarded when he receives a partial commission
from sales made by a subordinate whom he has trained.

These concepts enable us to analyze the impact of the
first metadrive, which is the existence of controllable

consequation. If none of our consequences were controllable, we would have no tendency to positively idealize traits like competence and industriousness. That is, since such traits would not be paired in any systematic way with benefits and gratification, they could not produce the bonds needed to create idealizations. In addition to promoting positive idealizations of self-control, this metadrive also causes us to positively idealize external phenomena that augment our capacities for control--such as tools, communication systems, raw materials, and other people who are responsive to our desires.

Explanatory Abstraction. Control ultimately depends on causation--the process through which one phenomenon brings another phenomenon into existence. To exercise control, an organism must possess some means of processing information about causal relationships. The simplest way of doing this is through anticipation: After observing the occurrence of a particular event in a particular situation, an organism anticipates the recurrence of the event in a similar situation. Research has shown that all mammals are capable of learning such anticipations, as illustrated by Pavlov's dogs learning that the sound of a bell was followed by the appearance of meat powder. In this case, the anticipation is mediated by a perceptual expectation and an emotional response. There are obvious limitations to the amount of control that can be exercised by such simple associative processes. For example, one could never use them to design an automobile.

An enormous increase in control can be obtained through the process of explanatory abstraction. An **explanation** is a conceptual interpretation of the causal relationships that exist between two or more phenomena. Thus, one can use a general explanatory analysis of heat and motion to design an internal combustion engine. The human capacity for explanation is a very important metadrive because it further strengthens our tendency to positively idealize control-enhancing resources. Part of our idealization of competence, for instance, is based on our understanding of how this trait can increase our influence over crops, diseases, the weather, other people, and so forth.

Cognitive Sympathicity. Any two individuals selected randomly are quite likely to experience similar basic responses to the colors, sounds, shapes, tastes, and smells around them. If one person codes a bird as red and flying from left to right, a companion is also likely to code the bird as red and as flying from left to right. This capacity for similar

experience, called sympathicity, derives from the inherent
parallelism between all human nervous systems. Except in
the case of severe abnormality, everyone's senses, neural
pathways, brain chemistry, and neuroanatomy have followed
a very similar pattern of development. Keep in mind that
cognitive sympathicity is merely the general capacity to
have similar cognitive experiences with other people. It
does not guarantee that we will actually have such exper-
iences. Nevertheless, cognitive sympathicity exercise
three major influences over the development of idealizations.

The first influence is implied in the very definition
of cognitive sympathicity. The fact that people often
have similar cognitive experiences in general implies
that they will probably have similarities in the specific
cognitive-emotional relationships that produce idealization.
For example, if Tom and Alice are both exposed to the pairing
of a particular sound with pain, then they will both exper-
ience their cognition of the sound at approximately the same
time that they experience the pain. Both of them will
therefore develop bonds between their cognitions
of the sound and their emotional structures for pain,
which will facilitate their development of mutually similar
idealizations.

The second influence that cognitive sympathicity has
on idealization is more subtle. Because of the ambiguity of
reality and the frequency with which we are punished for
faulty or inappropriate cognitions, we seek a standard to
use as a guide. The problem is that no perfect standard
exists. For example, there is often no available means of
knowing for certain if a given belief about the future is
accurate. In such cases, we tend to use other people's
cognitions as validating instruments for our own. If they
agree with us, we feel more confident. But if they disagree,
we reexamine the available stimulus cues and reconsider
our cognitive responses. Our logic is similar to that of a
new Toyota owner who compares the handling of his or her
car with that of a neighbor's new Toyota in order to
decide whether his or her car has a defect. In other
words, the fact that most people are fairly similar in the
basic nature of their cognitive processes implies that
one individual can use another individual's cognitions
as an indicator of the accuracy of his or her own cognitions.
This tendency promotes the universal positive idealization
of communicativeness and agreement.

In its third major influence, cognitive sympathicity
promotes the positive idealization of altruism. We are

able to emotionally accept the slaughtering and eating of cattle because we interpret them as possessing very little cognitive sympathicity with ourselves. Since their understanding of reality is so much more limited than ours, we have little identification with them. But when another human being is killed, we readily imagine the contrast between the way that person experienced reality while alive and the way he or she now experiences reality. Then we imagine the same fate befalling us, and we feel very confused and frightened. The ultimate result from such experiences is the development of altruistic idealizations.

Egocentricity. The fourth metadrive is the egocentric manner in which people respond to reality. Egocentricity consists of the psychological limitations that impede an organism's sympathy with and desire to benefit others. As is readily apparent, it is essentially the opposite of sympathicity. Although we all have much in common with the other members of our species, each of us is still a self-centered individual with a unique role in the world.

Egocentricity consists of two major limitations in our make-up. One is the egocentricity of our sensory perspective. Our knowledge of external reality depends entirely on the capacities of our various receptors to make contact with and code information about the phenomena occurring around us. In many ways, the receptors fulfill this function quite effectively. We can see a variety of colors, hear a variety of sounds, discriminate a variety of tactile cues, and so forth. But the spatial range of our sensory field is fairly small, and we have no direct access to other people's cognitions. Acquaintances can describe their perspective through words or drawings, but such communication is impeded by certain inherent obstacles--like the fact that people are often unaware of their most important cognitions. In addition, people often intentionally conceal their cognitive and emotional responses from fear of the social consequences of too much openness. It is therefore impossible to completely break out of the informational encapsulation imposed on us by our sensory limitations. There is simply no way that we can fully sympathize with another person's cognitive experience of reality.

An interesting implication of these sensory limitations is the way they cause each person to possess an egocentrically exaggerated sense of his or her own significance. Significance is composed of three components--salience, uniqueness, and permanence, and each component contributes to this effect. First, one is an especially salient stimulus to oneself

because one's body is physically close to one's receptors
(e.g., one's hands are within a fairly short distance of one's
eyes). Also, one's own psychological activity is frequently
a very intense source of stimulation, and one's motor activities
are often the cause of highly valenced external stimuli (like
rewards and punishments). Second, one is an especially
unique stimulus to oneself because one's greater familiarity
with one's own psychological responses relative to those of
other people tends to accentuate one's distinctive qualities.
In other words, partial ignorance of others' cognitions and
emotions tends to make one think that one differs from them
more than one really does. Hostility toward other people's
egocentricity may also intensify one's sense of uniqueness
as a result of one's attempts to deny one's own egocentricity.
Third, one is an especially permanent stimulus to oneself
because one's body has a more stable relationship to one's
receptors than it does to the outside world. To a lesser
extent, the continuity in one's memories and emotional patterns
as internal stimuli also promotes a sense of permanence.

The other major egocentric limitation is motivational.
I have proposed that the hedonic structures can only be
evoked by one's own receptors and memory traces. I have also
proposed that one's hedonic structures are one's ultimate
standard for coding the adaptive significance of stimuli.
Finally, I have proposed that the regulative structures
function in such a way as to maximize a person's own immed-
iate gratification. If correct, these principles indicate
that each person's motivation is completely egocentric at
the primitive level, since it is directed solely toward the
enhancement of his or her own pleasure and reduction of his
or her own distress. The only way to counteract this
egocentricity is to develop positive idealizations of
other people's gratification and the conditions that produce
it. Yet such idealizations can only acquire a positive
valence if their activation is somehow paired with our own
gratification. In order to develop a positive idealization
of the act of taking an injured person to the hospital,
for instance, we must experience some initial gratification
while we are performing that act. Invariably, that initial
gratification comes from some egocentric cognition. We
have therefore not really overcome our basic egocentricity.

Romantic Abstraction. The fifth and final human
metadrive is the romanticizing effect produced by abstraction.

A romantic idealization is one that possesses unrealistic content and an excessively intense valence. As shown in Figure 4, abstraction promotes romantic tendencies in two ways. First, it produces an artificial segregation of positive and negative stimulus components. In real life, a child's mother is sometimes cheerful and approving, sometimes gloomy and overcritical. A brother is sometimes cooperative and generous, at other times stubborn and stingy. But this mundane balance between positive and negative is lost during the development of abstract idealizations (i.e., values). Consider the value love, for instance. It does not cognize a tangible stimulus; one cannot go out and point to some object called love. Love is rather a general class of social responses performed by a variety of individuals who, at other times, also perform hate responses. Love and hate thus coexist. But a positive value for love reorganizes stimulus information in a way that groups all the loving qualities into a single cognition. At the same time, all the hating qualities are reorganized into a separate, negative value for hate. Abstraction has therefore created a set of artificially dichotomous values that possess no direct correspondence to reality.

Abstraction also promotes romanticism by making it easy for bonds from different emotions to converge on a single cognitive trace. The value love, for example, usually acquires excitatory bonds from sentia (due to stimulation from food, kissing, and caressing), elation (due to stimulation from social success), and animation (due to the sheer amount of stimulation received). It also acquires inhibitory bonds from deficia (due to the reduction in tissue needs), noxia (due to the treatment of bodily injury), frustration (due to the reduction in social failure), and fear (due to the presence of safety cues). The convergence of such diverse bonds causes the target idealization to acquire a more intense valence than it could otherwise.

Together, these two abstraction-produced effects cause the value love to become something of an irrational and tormenting force in our lives; it drives us into a fervent but futile search for "true love." Other romantic values impel us to seek "national honor", "scientific glory", and "spiritual purity".

Idealizational Content

Most people have many idealizations. Since we cannot possibly consider them all, we need to find a way of
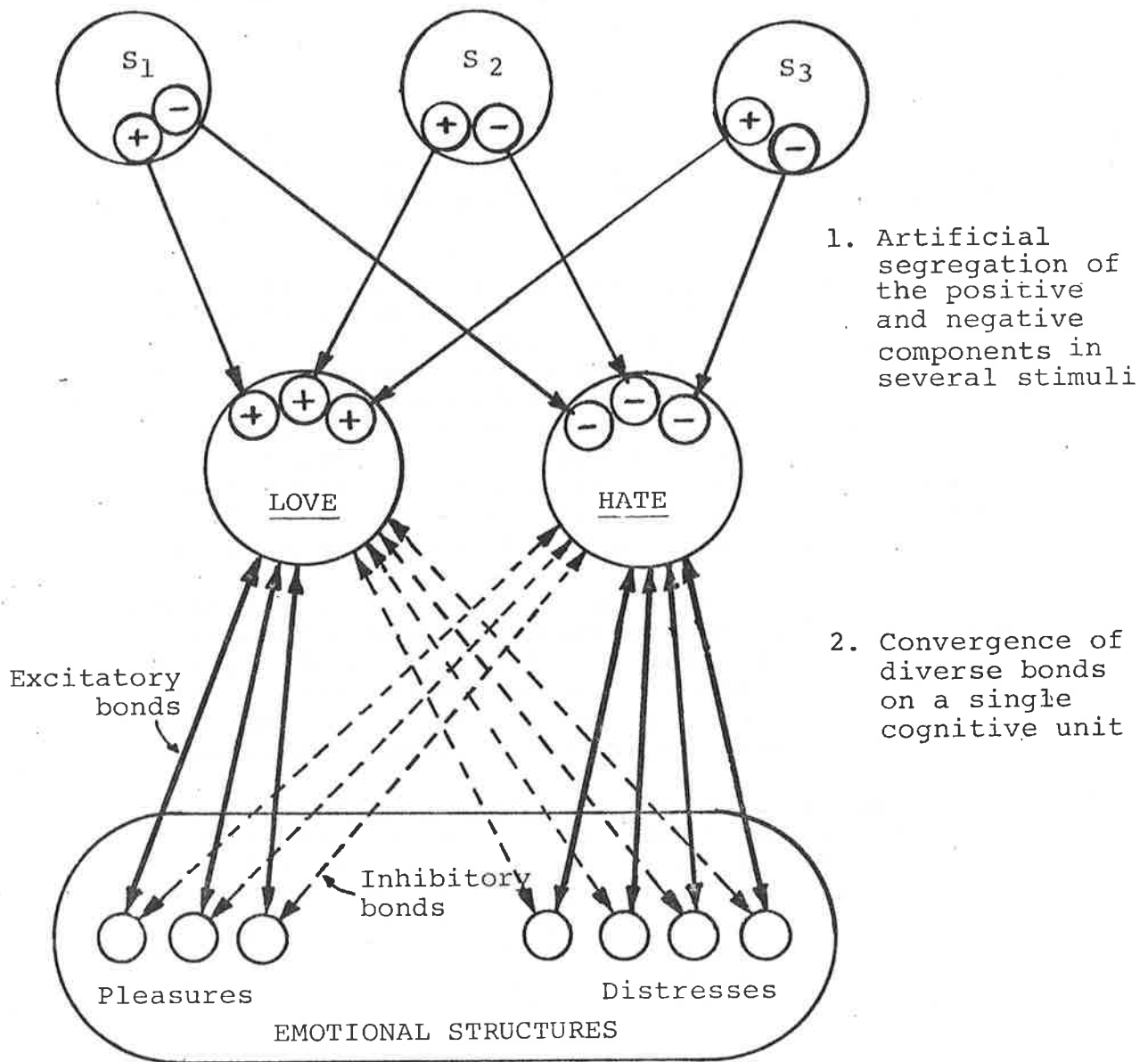
Figure 4. The two romanticizing effects of abstraction.

classifying them. At the broadest level, they can cognize either the self or the world. A **self-idealization** is one's idealization of one's own actual or potential traits (e.g., one's own facial features). By contrast, a **world-idealization** is one's idealization of an external phenomenon (e.g., one's car).

People are the most prevalent targets of idealization. Person-idealization can be analyzed along four primary dimensions, which are applicable to oneself as well as other people. These dimensions are as follows:

1. **Competence** is one's capacity to interpret reality accurately and to perform the acts that one desires to perform. It possesses intellectual and sensori-motor components, which both tend to be positively idealized because they enable us to reduce frustration and fear through the exercise of control. Since these particular emotions are exceptionally susceptible to non-primitive sources of stimulation, we often idealize competence as an end in itself rather than as a means of some tangible reward.

2. **Vitality** is the capacity of a person's body to perform the basic biochemical functions necessary for psychological activity, motor activity, tissue growth, and tissue repair. In addition to increasing our control, it strengthens our sense of significance by promoting permanence of the self.

3. **Physical Attractiveness** is the capacity of one's bodily surface to produce gratification and need-fulfillment through visual, tactile, olfactory, or gustatory contact. Part of the gratification from physical attractiveness comes from the primitive pathways leading to the simple emotions like sentia and animation. But its valence is also heavily dependent on the metadrives. Research has shown, for example, that physically attractive people often have an advantage in eliciting the attention and approval of others.

4. **Syntony** is the capacity of one's emotions and idealizations to promote gratification and need-fulfillment. This is a very broad dimension that contains the following thirteen components:

    a) **Ascendancy** is the tendency to strive for control

over other people's attitudes and behavior. We
positively value this trait in leaders because
it helps them to solve group problems, but we
often resent people who use it to dominate us.

b) <u>Industriousness</u> is the tendency to strive for
success on adaptively significant tasks requiring
a relatively high level of competence and exertion.
This trait is positively valued because it
produces practical benefits.

c) <u>Adventurousness</u> is the tendency to respond humor-
ously to threatening information and to strive
for unfamiliar and romanticized rewards. We
value this trait because it helps us to forget
about chronic problems and to enjoy childlike
fantasies of heroic exploration.

d) <u>Gregariousness</u> is the tendency to spend a lot
of time communicating with other people. This
trait is positively valued in people because
it promotes alliances and mutual understanding.

e) <u>Intimateness</u> is the tendency to intentionally
display the primitive, egocentric, or idiosyn-
cratic aspects of one's attitudes to trusted
others. Even though some of the information
acquired through intimateness is offensive
(we see the other person's "dirty linen"),
this trait enables us to gain a greater
recognition and acceptance of our deeper
similarities with one another.

f) <u>Altruism</u> is the tendency to act with the
conscious intention of benefiting others
rather than oneself and to accept the possi-
bility that such action may be punishing to
oneself. It is a combination of kindness
and unselfishness. Its opposite, villainy,
is a combination of maliciousness and selfish-
ness.

Given the basic egocentricity of human motiva-
tion, the positive valence of this trait in
self-idealization requires a special explanation.
The present theory proposes that such valence
can be acquired in the following four ways:

First, it can result from our capacity for
sympathetic distress. In early childhood, such
distress is largely produced by primitive sensory
channels that lead directly to the emotions. As
people grow older, they also acquire cognitive
channels through their idealizational and inter-
pretive processes. In both cases, the result is
that certain types of external distress cues--
such as crying, moaning, and apprehensive voice
qualities--automatically cause us to experience
a similar distress. We then become motivated to
help the other party as a way of eliminating
the distress cues. When these efforts succeed,
our cognitions of the helping response begin to
acquire strong positive bonds.

Second, admiration for a heroic figure who displays
an altruistic attitude can cause us to self-
idealize that trait as a way of strengthening
our identification with him or her. Thus, when
a boy observes his admired father helping people,
he may begin to idealize altruism in himself
as a way of becoming like the father and obtaining
the father's social status.

Third, one may derogate a villain and then acquire
a positive self-idealization of altruism as a
way of distinguishing oneself from him or her.
If a girl is injured or humiliated by a male
playmate, for instance, she will feel anger and
contempt toward him. Since there is a spontaneous
tendency to identify with other human beings,
she may then experience intense pressure to
protect her self-evaluation from her own derogation.
This she can do most effectively by becoming more
altruistic herself, which leads to the development
of positive self-idealizations of altruism.

Fourth, positive self-idealizations of altruism
can develop from the desire to gain affection
without consciously acknowledging the negative
implications of that striving. Consider a boy
who wishes to have his mother's "True Love."
One day the mother punishes him for acting
selfishly toward his sister. The punishment
is intensely threatening because it implies
that he may lose his mother's affection.
He therefore tries to develop a strong desire
to suppress his selfishness based on his self-

idealization of prudence. But this desire
creates new problems, since it requires that
he acknowledge that his mother's affection
is conditional (and, hence "impure"). In
desperation, he turns to the only acceptable
solution left: he begins internalizing his
his mother's idealization of altruism. In
essence, he concludes that "Mother is right."
This allows him to please her without facing
the limitations of her affection.

Each of these four processes produces a self-
idealization of altruism that gives one
gratification at an unconscious level without
disrupting one's conscious belief that a
particular type of act is motivated solely
by concern for someone else's welfare.

g) Authenticity is the tendency to display infor-
mation in a way that is intended to produce
accurate interpretations in others. Most
people rate it as the single most positive
trait that a person (either the self or another
person) can possess. This is probably due
largely to the confusion and intense frustration
produced by its opposite, inauthenticity.

h) Approvingness is the tendency to respond with
positive evaluations to external stimuli. We
positively value this trait in others because
approval can strengthen almost all facets of
our self-evaluation, as when a crowd's applause
causes an athlete to feel competent.

i) Amenability is the tendency to act in accordance
with attitudinal pressure from an authority
figure. This trait is positively valued
because it promotes cooperation and the relative
influence of competent individuals.

j) Conventionality is the tendency to share the
attitudes of the typical person in a given
society. Note the relative nature of conven-
tionality. A Communist would be conventional
in the Soviet Union but unconventional in
the United States. We usually feel rather
ambivalent about conventionality. We like
other people to share our attitudes because
such similarity strengthens our feeling of

being "correct." But we dislike the immaturity of people who indiscriminately adopt other people's attitudes; such a tendency suggests that they lack the capacity to develop sensible attitudes on their own.

k) <u>Prudence</u> is the tendency to readily acknowledge dangers and to defend oneself against them through relatively passive acts. This trait helps us to deal effectively with dangerous situations at a minimal risk.

l) <u>Orderliness</u> is the tendency to arrange qualities or objects in a manner that is uniformly consistent with a given principle or theory. We positively value this trait because it promotes competence and predictability.

m) <u>Concordance</u> is the tendency to maintain an attitudinal system that is well-integrated, devoid of internal conflict, and prone toward positive self-evaluation. Its positive valence comes from the reduction in tension and defensiveness that accompanies it.

In concluding this discussion of the idealization of people, let me mention certain basic points that have been ignored so far. One is that most people acquire both self- and world-idealizations on all of the above dimensions. They thus develop values for other people's competence as well as their own. This is not to say that the two sets of idealizations have equal valences (e.g., we usually idealize our own competence more than anyone else's). But we do have positive idealizations for other people's capacities when they are favorably allied with our own.

Another basic point is that world-idealization is usually subordinate to self-idealization (see later discussion). For example, we usually idealize other people's amenability because it strengthens our sense of competence (e.g., <u>I am competent because I was able to persuade Jane to change her plans</u>).

The final point is that most of us develop negative idealizations for the opposite of each of the above traits. Thus, we develop negative idealizations of incompetence, debility, physical unattractiveness, and dystony.

This completes our analysis of idealization. We have

seen that idealizations serve to channel emotion. They
are composed of a cognitive component and a bond. Metadrives
are universal non-emotional tendencies that influence the
direction of idealizational development. The interaction of
human emotions and metadrives causes us to positively
idealize four general traits: competence, vitality, physical
attractiveness, and syntony.

The next section examines another class of traces.
These serve as an extension of the sensory structures.

INTERPRETATION

Suppose we hear the statement THERE'S GOING TO BE A
SEVERE EARTHQUAKE IN OUR TOWN TOMORROW. If it is made by
a spokesperson from the U.S. Weather Service, we will probably
begin making frantic preparations to protect ourselves and
our property. But if it is made by a hysterical mental
patient, we will be more inclined to dismiss it with a
laugh. The striking difference between these two responses
poses a major theoretical question. What process enables us
to discriminate between accurate and inaccurate information?

Despite the obvious importance of this question,
psychology has had considerable difficulty answering it.
In the above case, some theorists might argue that our
conceptualization of the warning would vary with the credi-
bility of the source. The official statement would cause us
to formulate the congruent belief There's going to be a
severe earthquake in our town tomorrow. But our response
to the mental patient might be the belief He's crazy; we
aren't really going to have an earthquake. These differ-
ent beliefs would then activate different idealizations,
which in turn would motivate different acts.

Although this explanation is quite reasonable up to
a point, it contains two serious deficiencies. If the
psychological system has no special mechanism for coding
the accuracy of information, what is to prevent regulative
feedback from routinely retensifying positive but highly
inaccurate cognitions? What would keep us from believing
that everyone loves us and that we will live forever?
Also, how do we explain the fact that our attention can
be focused quite intensely on a "disbelieved" cognition
without that activation necessarily causing us to experience
the emotion that we would feel if we "believed" it? How
can a cognition be active and yet not evoke the emotions
to which it is bonded?

The information processing framework of the present
booklet offers a twofold solution to this problem. First,
I propose that a cognition's accuracy is coded in terms
of its effects on the organism's capacity to cope. In
general, accurate cognitions are more likely to produce
successful, gratifying acts than are inaccurate ones.
Thus, success can serve as an accuracy cue, while failure
can serve as an inaccuracy cue. Since success and failure
have already been primitively coded in terms of favorable
and unfavorable hedonic patterns (see the earlier discussion
of elation and frustration), we already have a mechanism
capable of providing accuracy cues. Second, I propose
that the transmission of impulses from cognitions to the

hedonic structures is screened according to the cognition's
coded accuracy. Since screening serves to modulate the
intensity of neural transmission, this implies that accuracy
will determine the intensity of the hedonic effects produced
by cognitions.

With these basic considerations in mind, an interpretation
can now be defined as a set of traces and related structures
that code and retain information in a way that selectively
transmits it toward the emotional structures according to
its relative accuracy. In other words, an accurate interpre-
tation produces a strong hedonic effect, while an inaccurate
one produces a weak effect. This conception of the inter-
pretive process is diagrammed in Figure 5. When a male
infant sees his mother's face, his receptors produce a
sensation that reactivates his image of the face. Since
exposure to the face has frequently been followed by exposure
to her breasts and food, his associated image of the breasts
is also reactivated . These two images together constitute
the interpretation's cognitive component. In the next
phase, an idealization of the breasts is activated by the
cognitive component, and impulses are transmitted to the
emotional structures through the bonds. But this transmission
is not rigid and automatic. It is modulated by the judgmental
screening structures. If previous activation of the inter-
pretation's cognitive component has regularly been followed
by successful action (e.g., successful searching for the
breasts), then associations will have developed between the
cognitive component and the affirmation structure. Since
the affirmation structure facilitates interpretive transmission,
these associations will strengthen the impulses coming from
the idealization. On the other hand, if activation of the
cognitive component has been followed by failure, then an
association to the disaffirmation structure will have developed.
Since the disaffirmation structure impedes interpretive
transmission, the latter associations will weaken the
impulses coming from the idealization. In summary, an
interpretion's cognitive component codes information about
the nature of stimuli and their interrelationships. Its
judgmental component then codes information about the cognitive
component's accuracy in a way that influences the intensity
of the resulting hedonic response.

Level of Abstractness

Interpretations manifest the same differences in level
of abstractness that we observed in idealizations. At the
concrete level, a perception is an interpretation composed
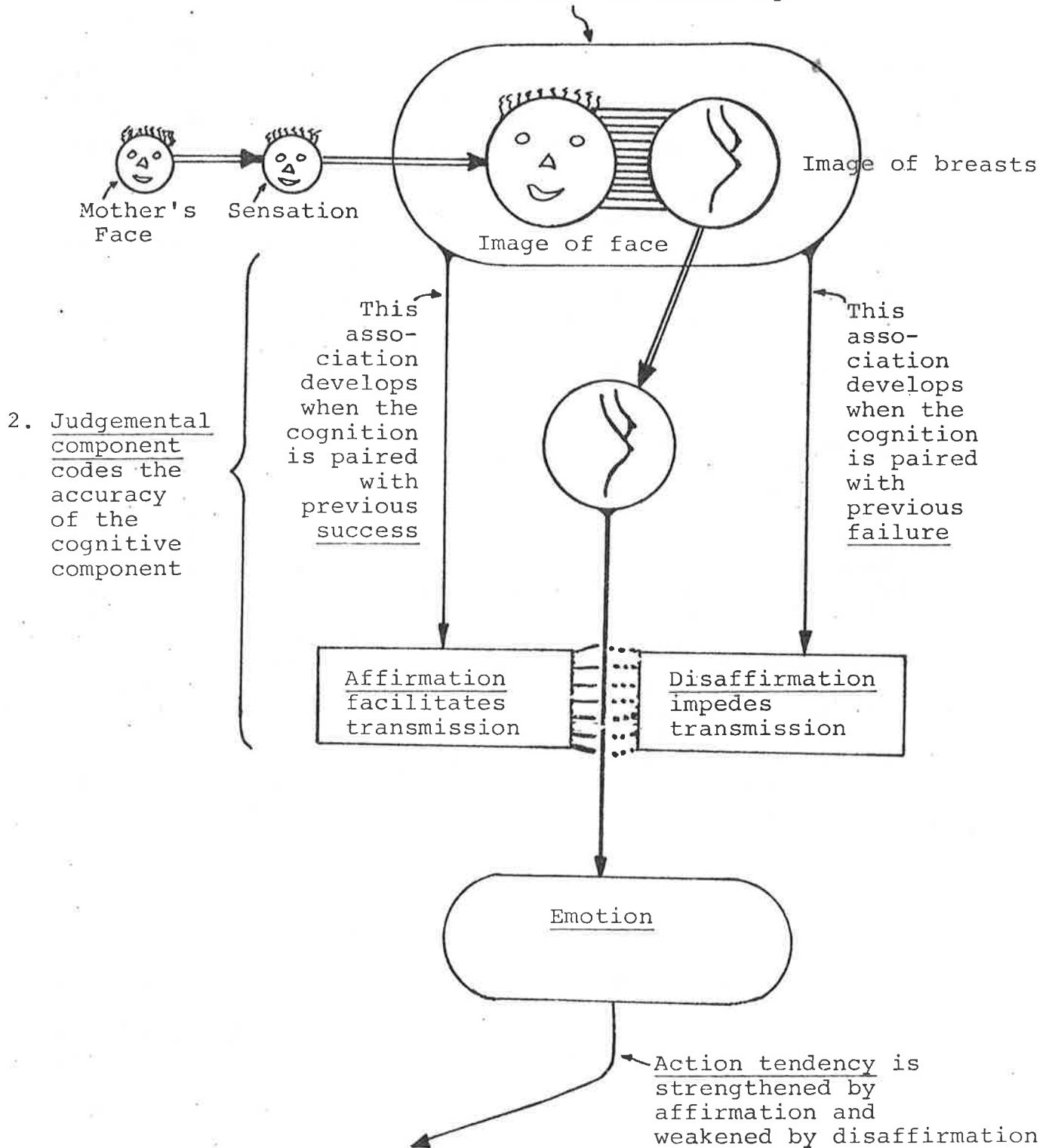of a sensation and a set of corresponding images. Consider

Figure 5.   The cognitive and judgmental components
of an interpretation.

the infant's expectation that exposure to his mother's face will be followed by exposure to her breasts and food. This is perceptual because it is entirely concrete. At an abstract level, a belief is an interpretation composed of concepts. Thus, the belief Women provide love corresponds in content to the infant's perception, but it is entirely abstract. Perceptions and beliefs are closely coordinated in the processing of language. The printed words WOMEN PROVIDE LOVE are initially processed at the perceptual level, with each letter cognitively represented by a corresponding image. These linguistic images are then coded into corresponding concepts (WOMEN→women). The process is reversed during expression, so that concepts are coded into linguistic images, which in turn are verbalized by the motor structures.

There is an important difference in the way interpretations at the two levels are judged. Most perceptions acquire primary judgment (direct associations between their cognitive components and the judgmental structures). But many beliefs depend largely on secondary judgment (associations to certain fundamental beliefs that possess primary judgment). As an example of secondary judgment, suppose you have the fundamental belief Only cats can meow. You then hear an animal meowing outside your house, which causes you to formulate the conceptualization That animal is a cat. Because the latter is consistent with an existing belief that possesses primary affirmation, it automatically obtains secondary affirmation. Consider also the earlier example in which the prediction of an imminent earthquake had little emotional impact when expressed by the mental patient. Here, beliefs about the source's low credibility produced secondary disaffirmation.

Characterization

A characterization is an interpretation of how an object's qualities are arranged in time and space. It is non-explanatory in that it does not specify any causal relationships. The characterization The car accident occurred on the wet road, for example, merely describes a setting and an event; it contains no information about the effect that the setting may have had on the event. Characterizations differ in their favorability. An aggrandizement is a characterization that cognizes a stimulus as superior, and a derogation is one that cognizes it as inferior. We often aggrandize ourselves (I am kind) and derogate our enemies (She is malicious).

A typology is a special type of characterization that

cognizes the criteria believed to be appropriate for
categorizing a given class of phenomena into subclasses.
A very simple typology is the one we use in categorizing
people into males and females. Many elaborate typologies
exist, such as Henry Murray's typology of needs (e.g.,
need achievement, need affiliation, need abasement,
need succorance; and so on). When typologies are very
loose and inaccurate, they are called stereotypes. The
major contribution of accurate typologies is their capacity
to help us predict a given stimulus' unknown qualities
from its known qualities. Being able to accurately categorize
a person as high in need achievement, for instance, enables
us to predict his or her future behavior in a work setting.

Explanation

Characterizations are relatively unsophisticated
because they cognize reality at its most superficial level.
A much higher and more powerful level of understanding
is gained through explanations, which as we saw earlier,
are conceptual interpretations of the causal relationships
between two or more objects. There are three distinct
types of explanation.

Attribution. An attribution is a belief that specifies the
cause of a past or present phenomenon, as in The accident was
caused by the wet road. This example deals with the same
phenomenon interpreted in our discussion of characterization,
but now we are going beyond a mere description of space and
time relationships to an understanding of the causal process
involved. A large amount of research has been done on
attributions in the past decade. Essentially, it shows that
their development is influenced by various causality cues.
We are more likely to attribute event B to event A when A and
B have occurred close to one another in space and time,
when A has preceded B, when no other event has preceded B,
and when these relationships between A and B have followed
a consistent pattern in the past.

Theses. After we have formulated a series of similar
attributions, we often condense them into a thesis. A
thesis is a belief about the general causal relationship
between two or more classes of phenomena (e.g., Wet roads
often cause car accidents). A thesis of this sort might
develop from the following series of attributions: Tom's
accident last year was caused by a wet road; Jane's accident
last week was caused by a wet road; and Ralph's accident
yesterday was caused by a wet road. The first step in
formulating a thesis from these attributions is to recognize

their similarities. That is, we code the fact that each attribution contains the units car accident, was caused by, and wet road. The next step is then to replace these particularized units with general ones. Car accident becomes car accidents (plural).

Inferential Expectations. Theses are able to exercise a key influence on our motivation by providing the logical framework for formulating inferential expectations. An expectation is an interpretation of the type of future event that will probably occur in a particular situation. Expectations are considered inferential when they are derived from the logical analysis of one or more theses. The above thesis, for example, could be used to infer the expectation This wet road tonight may cause a car accident. Since inferential expectations can be used to cognize the causal relationship between a potential act and its probable consequence, they are the basic interpretive component in a motive. We are motivated to drive carefully by the expectation Driving carefully will enable me to avoid an accident on this wet road.

Keep in mind that many expectations are concrete and non-inferential, such as an imaginalization of the relationship between a hot stove and painful sensations on the skin. This type of expectation can serve a motivating function, too. But inferential expectations are often more powerful because they are able to utilize the rich body of general information contained in theses.

Theses can function in a backward as well as a forward direction. In other words, we can use our existing theses as the logical foundation for inferring new attributions. Suppose we already have the thesis Wet roads often cause car accidents. If we are then exposed to information about a new accident that recently occurred on a wet road, we are likely to assume that it was caused at least partly by the wet road. As this example illustrates, theses can be misleading. The mere fact that an accident occurred on a wet road does not prove that it was caused by the wet road. But our thesis at the very least helps to focus our attention on wet roads as a possible cause of the accident.

Interpretation of Complex Sequences

In applying the foregoing concepts to everyday life, we often need some larger units of analysis that help us understand complex sequences of events. One of the most basic and spontaneous ways that we organize our stream of experience

is to group events into episodes. An episode is a particular
setting, a particular set of figures (i.e., significant
persons), and a particular set of causally interrelated
events that occur to these figures while they are in this setting.
The most important feature of an episode is its clearly
defined boundaries in time and space. Thus, the assassina-
tion of President Kennedy was an episode because it occurred
on a single day and in a fairly limited spatial location,
with the various events (e.g., the motorcade, the rifle fire,
the destruction, and the manhunt) all possessing causal
relationships to one another. A set of episodes that share
some common quality is called a motif. Because of the
assassinations of President Kennedy, Malcomb X, Rev. Martin
Luther King, and Robert Kennedy, it can be said that
assassination was a significant political motif of the 1960s.
When various episodes are causally related to one another
(e.g., World War II), the sequence as a whole is called an
epic.

One of the important things to realize about episodes
is their potential complexity. Often, an episode involves
many different figures and objects that possess an intricate
web of causal relationships to one another. This complexity
presents a severe challenge to our interpretive process.
We must characterize each figure, make sensible attributions
about the effects that they produce, and formulate expecta-
tions about the acts of these or similar individuals in
the future.

In the Kennedy assassination, for example, it was
vitally important for government leaders and the public
at large to formulate accurate attributions of who caused
the rifle to fire and the motive for this action. If the
cause was an emotional disturbance on the part of an
isolated fanatic, then we would have expected a continuation
of existing international relations. But if the cause was
a foreign agent motivated by obedience to the instructions
of his or her government, we would have expected
war to erupt at any moment. Yet most of the information
needed to properly interpret the assassination was not
available. During the critical hours immediately after
the attack, authorities had little information about the
assassin's identity and none about his motives. Our
leaders therefore had to rely on practically nothing
but a set of general theses that they had previously
formulated during their various experiences in public
and private life. Their central thesis appears to have
been the belief that a fear of retaliation would have
deterred any foreign leader from ordering an attack on a

U.S. President. From this thesis, they tentatively attributed
the attack to an isolated individual. But they were far
from certain, and an intense state of vigilance prevailed
for several days. Even now many Americans are not convinced
of the Warren Commission's conclusions.

There are three concepts that help us to interpret
episodes. A construal is a person's total set of charac-
terizations and attributions about a specific past or present
episode. An average citizen watching the JFK assassination and
its aftermath on television might develop a construal contain-
ing perceptions of Kennedy, his limousine, and the building
from which the bullets were fired. He or she would also have
abstract characterizations of Oswald's personality (e.g.,
He's crazy) and attributions about Oswald's motives (e.g.,
He did it for symbolic revenge against society).

A scenario is the total set of expectations that a given
person uses to interpret the events that would occur in a
given setting if a given figure were to perform a given act
in that setting. Soon after realizing that President Kennedy
had been shot, Vice President Lyndon Johnson undoubtedly
began formulating a variety of scenarios. If he put the
nation's military on full alert, he might frighten the
Soviet leaders into a similar act. Such a state of extreme
tension might then lead to a confrontation that neither
wanted. As we can see, scenarios can be highly speculative
and conditional. A single change in an expected sequence
of events can have drastic repercussions on the remaining
segments of a scenario. Perhaps the Soviets would not place
their military on alert in response to our alert. Or perhaps
they would make a response that would be be even more
serious. Often we formulate a number of different scenarios
for a given situation and then select the one that appears
most plausible.

Our discussion of basic interpretive processes suggests
that the conceptual components in construals and scenarios
are inferred logically from relevant typologies and theses.
In fact, a large number of interrelated typologies and
theses are often used together in formulating a given
construal or scenario. The term epitheory (i.e., "theory
of episodes") helps us to analyze such processes. Thus,
an epitheory is the total set of typologies and theses
that a given person uses in formulating construals and
scenarios about a given episode or motif. President Johnson's
scenarios about future Soviet-American relations immediately
after the assassination were probably formulated from an
epitheory containing a typology of Soviet political leaders

and theses about Soviet political philosophy and military stragegy.

Epitheories are not limited to people in high places. Each of us uses epitheories throughout a typical day. If we passed a parked patrol car that immediately pulled out and sounded its siren, we would instantly retrieve our epitheory for police-behavior-in-the-setting-of-a-traffic-violation. We would then use its typology of police personalities to categorize the officer who confronted us and its theses of police behavior to infer scenarios of how he or she would react to various defenses that we could present. A very important implication of this analysis is the fact that different individuals frequently have quite different epitheories for the same episode. Where your epitheory might lead you to infer that denying all charges would be the best strategy, a friend's epitheory might suggest that an admission of a small amount of speeding coupled with a plea for mercy would be most effective.

Interpretations of Self and World

As with idealizations, it is very helpful to categorize interpretations in terms of the distinction between self and world. There are thus **self-interpretations** (interpretations of the self) and **world-interpretations** (interpretations of phenomena existing outside the self). Often the psychological boundary between self and world is obscured by **identification**, which is a world-interpretation that influences one's self-evaluation through its characterization of an external stimulus as similar to oneself. Identification can be quite gratifying, as when a father experiences self-aggrandizement through identification with his son's athletic ability. In the opposite process, **disidentification**, self-evaluation is influenced through the characterization of an external stimulus as dissimilar to oneself. Disidentification is often used defensively, as when a girl disidentifies with a sister who is ugly or crippled. It is interesting to note that one's similarity to a negative stimulus frequently intensifies one's tendency toward disidentification with it. The fact that the crippled sister belongs to the girl's own family thus increases the social threat to herself, which intensifies her desire to disidentify with the sister.

COMPLEX ATTITUDES

We have now completed our analysis of the three elementary attitudinal processes--emotion, idealization, and interpretation. Our next task is to examine how these processes function together during the integrated enception and expression of information.

Evaluation

Evaluation is the enceptive integration of a given set of interpretations about a given stimulus, all idealizations relevant to those interpretations, and all hedonic responses evoked by those idealizations. If you believe that Richard Nixon is inauthentic, for example, your evaluation of this facet of his personality will consist of your characterization of him as inauthentic, your negative value for inauthenticity in others, and the fear and frustration excited by that negative value. This would be a **simple evaluation** because it would only involve a single stimulus quality (i.e., inauthenticity). Since most stimuli have many different qualities, our response to any given stimulus usually contains numerous simple evaluations. Accordingly, the sum of all the simple evaluations of a given stimulus is called a **composite evaluation**. Your composite evaluation of Nixon might contain simple evaluations of his inauthenticity, ascendancy, and industriousness. Obviously, the net valence of this composite evaluation could be positive even though it contained a few negative components. That is, your positive simple evaluations of his ascendancy and industriousness could outweigh your negative evaluation of his inauthenticity. Note also how epitheories can influence evaluation. If your epitheory for leader behavior categorizes lying as a form of competence, they you might formulate the characterization Nixon sure is clever. This response would then cause you to have a more positive composite evaluation of Nixon.

Level of abstractness. A major theme throughout our study of attitudes has been the differentiation of cognitions into two levels of abstractness. This differentiation plays a very important role in evaluation. At the concrete level, our imaginal processes provide a powerful but relatively simplistic channel to the hedonic structures. Their power comes from their capacity to recapture the intensity and spontaneity of childhood emotion. Their simplicity comes from their high responsiveness to raw stimulus dimensions (such as color, shape, and size) and from their frequent lack of extensive internal differentiation. At the abstract level, our conceptual processes provide a more analytical and flexible channel to the hedonic structures. They enable us to ponder the pros and cons of an issue for hours, to devise clever and deceptive plans of action, and to erect an elaborate network of values that refines and condenses decades of information about success and failure,

safety and danger. Their hedonic impact can be even more powerful than that produced by concrete cognitions, but it is usually more subdued and carefully tuned.

A major point to remember about these two channels is their parallelism. For every concrete cognition, we usually have an abstract one that corresponds to it in content. Consider your response to the female breast. As we saw earlier, the concrete channel contains a highly affirmed perceptual expectation that the breast will provide food and other forms of sensual comfort, which is associated to highly positive idolaments. When you see a breast as an adult, then, your initial response consists primarily of a strong dependent yearning for the tender care you received as an infant. But this is soon followed by the fear excited through the abstract channel--where you have beliefs about society's punishment of overdependency and physical immodesty. The two channels thus produce a momentary state of confused ambivalence. Usually this is soon resolved in favor of the abstract channel, which forces your attention away from the concrete channel. In summary, the parallel content but dissimilar hedonic functions of the concrete and abstract channels cause them to compete for control over our emotions. Since they can both contribute to our happiness, the healthiest adult is one who can maintain a balance between them. He or she relies heavily on the abstract channel for rational direction, but can yield to the simpler urges of the concrete channel when there is no realistic danger from doing so.

Personis and Ecos. A major principle in the present theory is that external stimuli are evaluated largely in terms of their implications for self-evaluation. If I have a fancy new car, for instance, a large part of the pleasure I receive from evaluating it comes from the boost it gives to my self-evaluation. A second important principle in this context is that a person's various simple self-evaluations are highly interrelated. Suppose I have forgotten a colleague's name while trying to introduce him or her to someone else. The impact of this event on my self-evaluative process will probably not be limited to my evaluation of my memory. It may generalize to other aspects of my sense of competence-- and may even influence my sense of syntony if I conclude that I have been imprudent and villainous.

The above principles suggest that it will be helpful to consider all cognitions that a person has about the self as a single, relatively well-integrated subsystem. This collection of cognitions will be called the personis. Likewise, a person's cognitions about the world are a

subsystem called the ecos (as in "ecology").

The basic relationships between the ecos, personis, and emotions are shown in Figure 6. An external stimulus is first interpreted by the ecos. Suppose an acquaintance of yours named Alice has said, "You look great tonight!" The ecos would enable you to decide whether this praise was genuine or merely an attempt to manipulate your feelings. In essence, you would use the ecos' epitheories to analyze the causal implications of Alice's statement. Previous interpretations of Alice combined with your basic typology of personality, for example, might lead you to characterize her as emotionally insecure. This characterization might then activate the thesis Emotional insecurity often causes people to express false approval in the hopes of winning friendship. Finally, you might infer the attribution Alice's praise of my appearance was caused by her desire to please me. In the final phase of evaluation, the ecos' information is transmitted to the personis for specialized coding in terms of its implications for the self. If you had decided that Alice's praise was genuine, your personis' positive self-idealizations for physical attractiveness would have evoked emotional gratification. But since you decided that her praise was inauthentic, your personis was unable to evoke any emotional gratification. Note that the personis can also process direct stimulation from the self, as when you look in the mirror or hear the sound of your own voice.

Levels of Consciousness. A cognition is conscious when it possesses mutually corresponding imaginal and conceptual components that are simultaneously active in short-term memory. Active availability in short-term memory is seen as essential to consciousness because of the integrative and intensifying functions that are performed there. Thus, when a man says he is conscious of having just experienced a childhood visual memory, he probably means that the intensity of the memory trace's processing in short-term memory enabled him to re-encept it at both levels. He would achieve concrete re-enception by passing it through the sensory register, where sensory input is first coded in the brain. Abstract re-enception would be achieved by recoding the memory into introspective beliefs about its content (e.g., I just recalled the party I had on my ninth birthday). The dual criteria of imaginal and conceptual coding is proposed because the former provides extra vividness and the latter extra meaningfulness. Vividness and meaningfulness seem to be the essential qualities
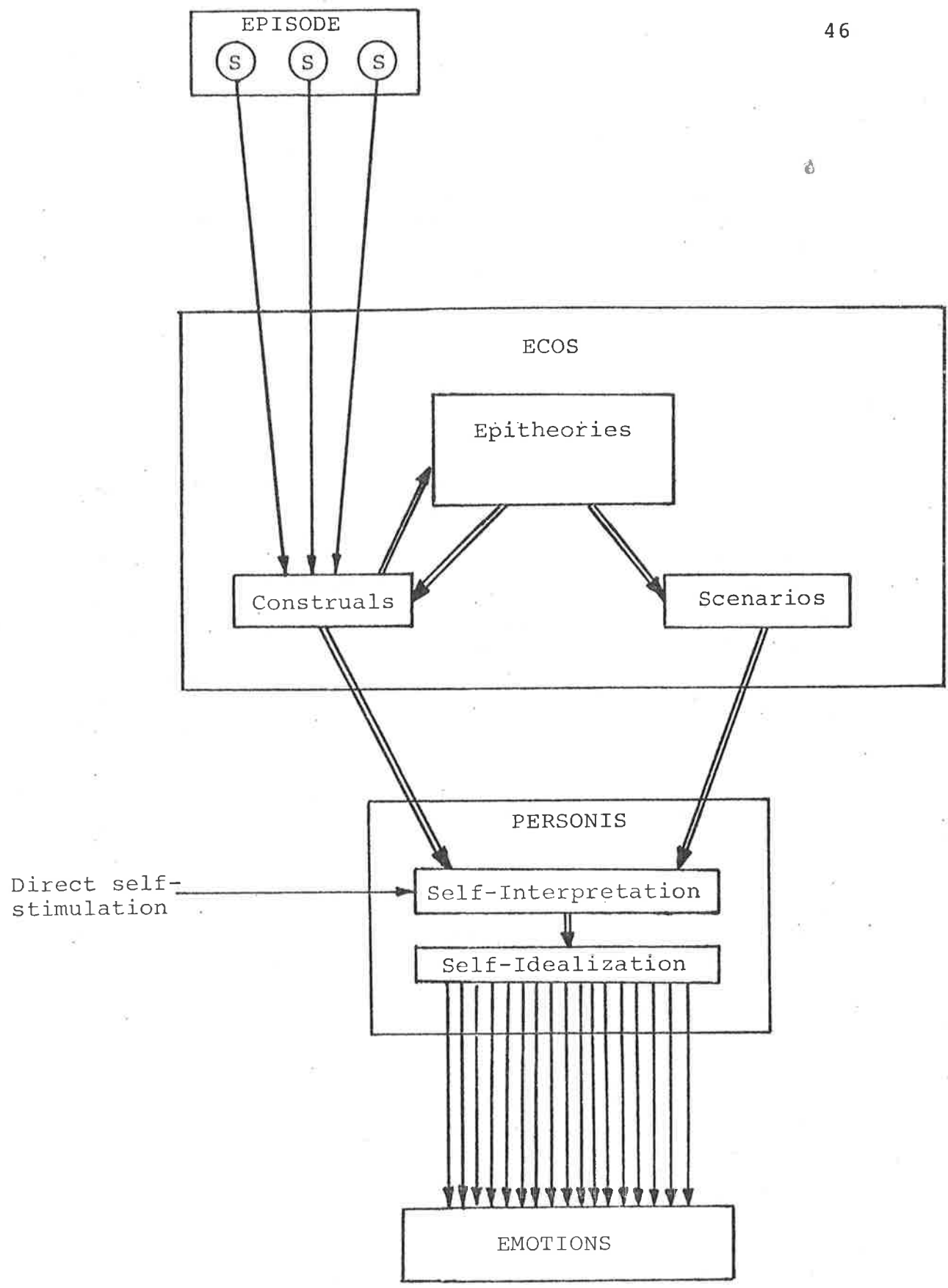
Figure 6. The functions of the ecos, personis,
          and emotions in the evaluative process.

of consciousness.   There is a strong temptation to assume that consciousness cannot exist without language. To be sure, language is an exceptionally powerful facilitator of consciousness due to the way that its strong interunit associations automatically bring imaginal and conceptual processes together. But we must remember that non-linguistic images can be just as vivid as linguistic ones and that meaningful concepts can exist without language. Consciousness therefore does not depend on language.

Variations in consciousness can have a profound influence on the evaluative process. Suppose you have an older brother who frequently smirked at you when you were a child, which you resented intensely. The traces for this resentment are no longer conscious after so many years of dormancy, but they still retain the capacity to excite frustration. One day you meet a man named Tom, whose facial features remind you of your brother. Through generalization to your brother, you immediately feel a surge of resentment that causes you to dislike Tom. Later, in trying to understand your strange reaction, you are unable to recognize the causal relationships involved because of the unconsciousness of your resentment for your brother. You therefore continue to dislike Tom even though he has never insulted you in any way. This example illustrates both the power and irrationality of unconscious processes.

In concluding the discussion of evalution, note that Appendix B contains a list of additional evaluative terms that might be useful in your writing, but knowledge of them is not required.

Before we begin our next topic, which is motivation, we need several preliminary definitions. A program is a trace or structure that retains information about how to perform a response. A motor program for driving a car, for example, tells a person how to turn on the ignition, how to steer the wheels, and how to control the throttle and brake. We also have processing programs that enable us to control our own psychological processes--as when we intentionally search our memory for a specific name, intentionally reduce anxiety before giving a public speech, or intentionally rehearse some factual information that we have just encepted. When a program undergoes execution, its information is expressed in a way that produces the type of response that it codes. Execution of a program for walking thus produces the action of walking itself.

Motivation

Whereas evaluation occurs during the enceptive phase
of attitudinal functioning, motivation takes place during
the expressive phase. This essentially means that the two
processes perform different emotional functions. Evaluation
uses hedonic arousal to code adaptive significance, while
motivation uses regulation to control programs. Motivation
can thus be defined as the integrated attitudinal process
that uses regulation to control the execution of programs
in accordance with information about the adaptive significance
of all available programs. In other words, it uses ideal-
izations and interpretations as a channel for the emotional
control of programs. Since its regulative component tends to
maximize immediate net gratification, motivation's ultimate
effect is to selectively excite positive programs and inhibit
negative ones.

Simple Motives. The overall motivational process can
be broken down into specific motives. At the most elemen-
tary level, a simple motive is the combination of an expec-
tation of obtaining some consequence from the attempted
execution of a given program, all idealizations of that
consequence, and the resulting regulative impulses that are
transmitted to the program. These three components are
diagrammed in Figure 6, which depicts one's hypothetical
motive for walking over to talk with a friend who has
just entered the library. The expectational component
consists of a characterization of the program (i.e., walk-
ing over to my friend Tom), the causal concept will enable,
and the characterization of the consequence (i.e., me to
have a conversation with him). The idealizational
component consists of positive values for receiving approval
and interesting information from friends. After the conse-
quence has been evaluated, regulative feedback is first
transmitted through the idealizations to the consequence
characterization. But sustained evaluation of the consequence
is frustrating, so that regulation is soon shifted over to the
characterization of the program. If the regulation is
sufficiently excitatory, it then causes the program to be
executed. Note that the intensities of regulation and
execution both depend on the type and strength of the
expectation's judgment. When the expectation is highly affirmed,
its excitatory screening produces a very strong motive;
when highly disaffirmed, its inhibitory screening produces a
very weak one.

The above analysis is based on an important cognitive
principle. Research on word association suggests that the
activation of a given cognition automatically causes impulses
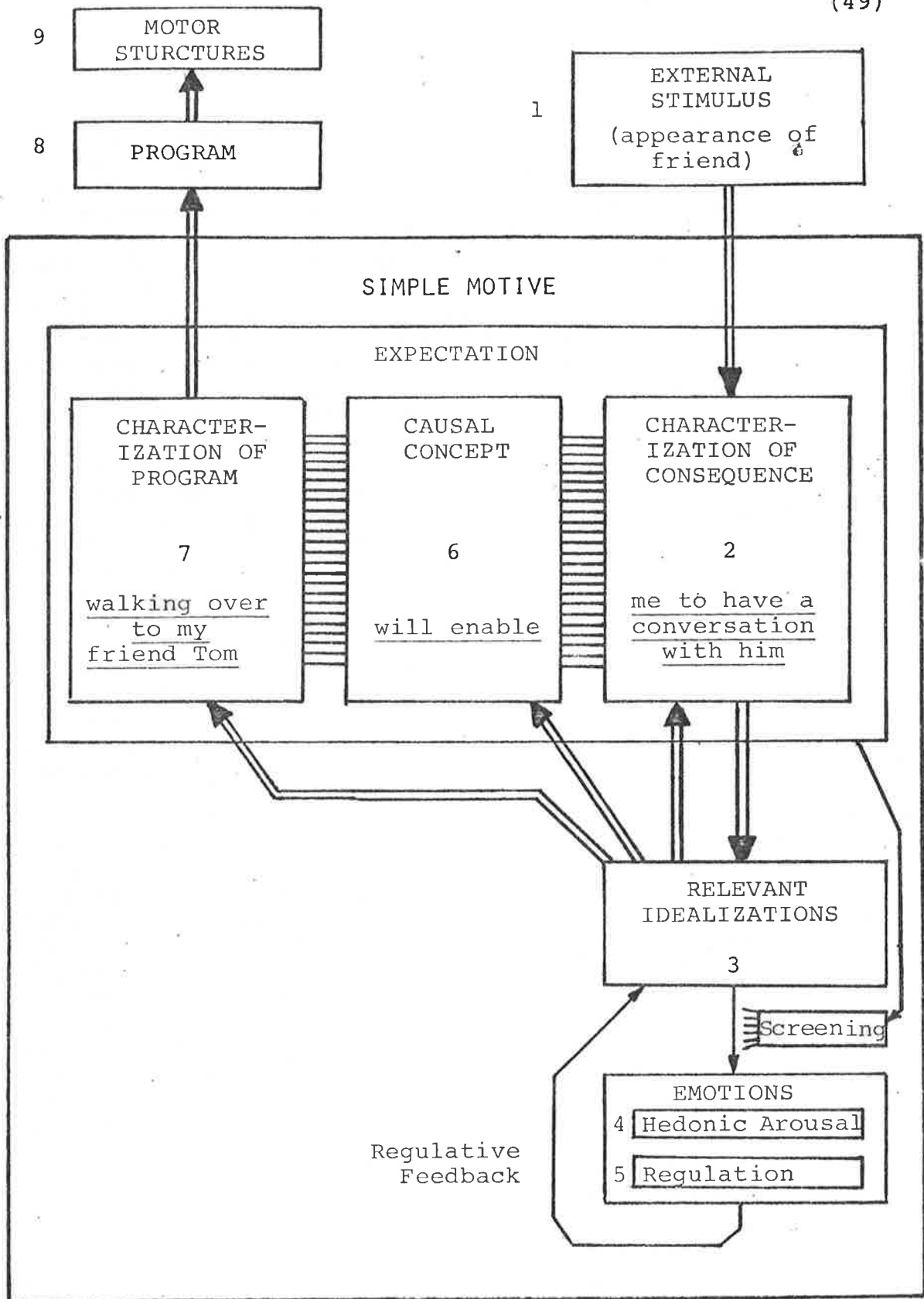
Figure 7.   The simple motive involved in getting up from
            one's desk at the library and walking over to
            a friend who has just entered the library.
            (The numbers refer to the order in which the
            various components become involved.)

to be transmitted to any other cognitions that possess similar content. Activation of the concept justice, for instance, tends to activate concepts like judge, law, peace, and right, which possess a certain amount of parallel content. This process is especially important in understanding how regulative feedback is transmitted from the program characterization in a motive to the program itself. I assume that there is sufficient similarity between the characterization and the program to allow automatic transmission from one to the other. This principle of cognitive association also explains the transmission of impulses from an interpretation to a corresponding idealization during the evaluative process.

Complex Motive. Typically, several consequences are expected from the execution of a given program. The act of going to a party, for instance, might be expected to produce an exchange of jokes with friends, exposure to potential future dates, and relief from the pressures of studying. Since each expected consequence contributes to the total strength of one's motive to attend the party, we need to combine them. Accordingly, a composite motive is the sum of all the simple motives relevant to a particular program. If the strength of the motive to exchange jokes with friends was +4, to meet potential dates was +2, and to obtain relief from the pressures of studying was +3, then one's composite motive for going to the party would +9.

Simple Motivational Conflict. A very important complicating factor in motivation is the possibility of conflict between two or more simple motives. Such conflict results from the fundamental opposition between excitatory and inhibitory regulation, which tend to neutralize one another when they are focused on the same program. This opposition is expressed in the definition of desire and aversion. A desire is a motive that transmits excitatory impulses toward a program due to the expectation of reward. By contrast, an aversion is one that transmits inhibitory impulses toward a program due to the expectation of punishment. We can thus say that simple motivational conflict exists when a person has a desire and aversion for the same program.

These two types of motives have been diagrammed in Figure 8, which depicts the conflict in a female college student who is trying to decide whether or not to argue with her stern father. On the left is her expectation Arguing with Father will enable me to display my competence. Since she has a positive self-idealization of competence, this expectation produces anticipatory gratification and retensification of the program for arguing with her father.
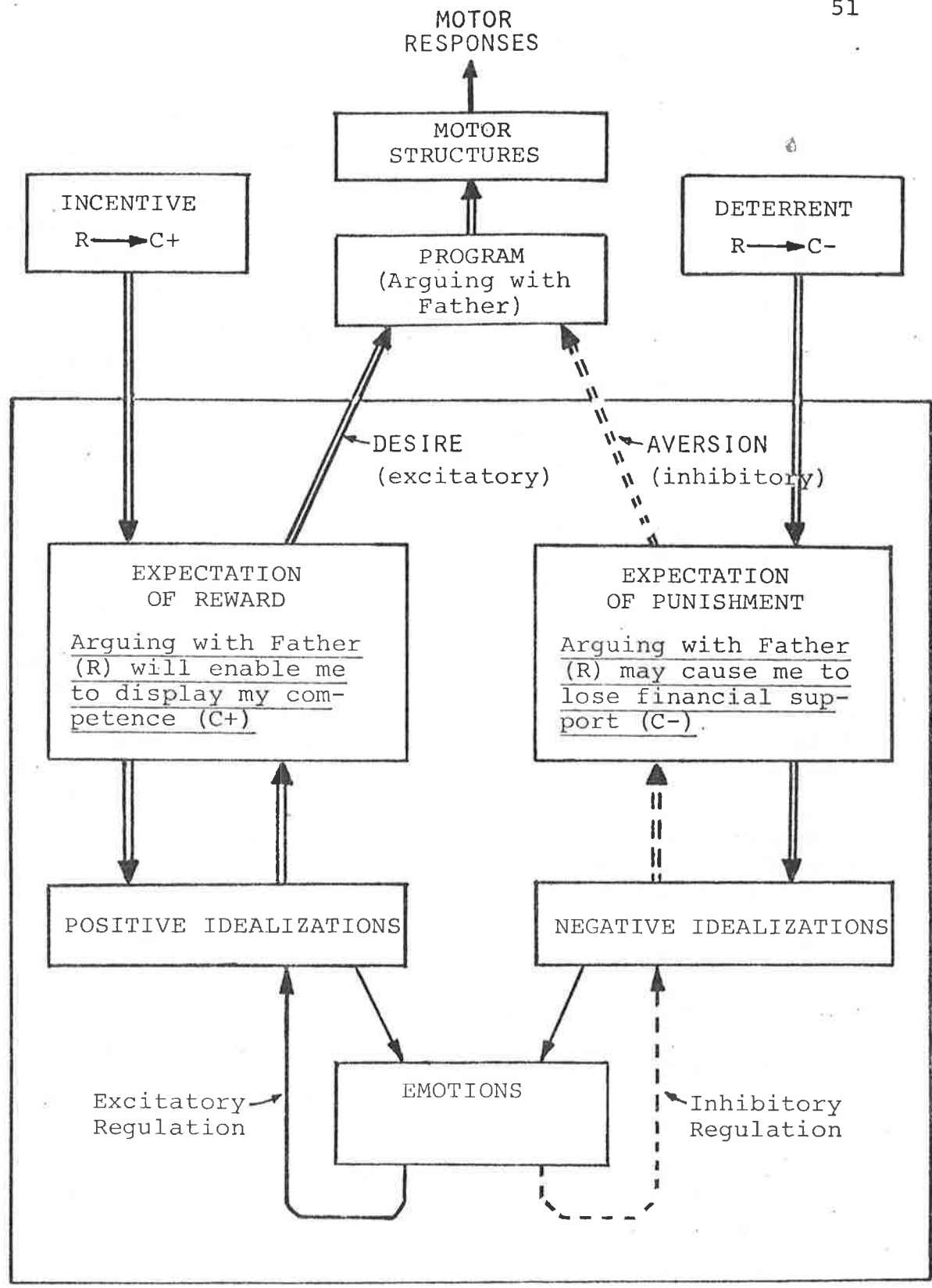
MOTOR
RESPONSES

Figure 8. The simple motivational conflict produced
by a desire and an aversion toward the
same program.

It is therefore an example of a desire. On the right side, her expectation Arguing with Father may cause me to lose his financial support produces disgratification and repression. It is an example of an aversion. Since the excitatory impulses tend to be neutralized by the inhibitory impulses, the student may remain ambivalent and undecided about what to do. It is more likely, however, that she will try to reduce the conflict as rapidly as possible, since conflict tends to excite frustration. One way she could do this would be to intentionally strengthen her affirmation of one of the expectations. She could also selectively focus her attention on the idealizations relevant to one of the expectations. The effect in either case would be a shift in the potency (i.e., relative strength) of the two motives, so that one would now prevail over the other.

When execution of a desire is blocked by an opposing aversion, there is a tendency to displace the desire toward a more favorable target. Displacement is a defensive process in which retensification is directed away from the characterization that originally produced it and toward a characterization possessing similar content but exciting less distress. In the above case, the college student might displace her desire to argue away from her father and toward her mother. Assuming that she expected equal reward but less punishment from the latter, this shift would thus allow her to obtain substitute gratification with less danger.

Motivational Cues. As we move through our stimulus field, we are constantly barraged by cues that influence our motivation. A giant yellow arch encourages us to buy a hamburger, a smile encourages us to wave or say hello to a friend, the sight of a patrol car discourages us from speeding, and a verbal warning about lung cancer discourages from smoking. The first two examples are incentives. An incentive is a set of motivational cues that strengthen one's desire to perform a given act. The second two examples are deterrents. A deterrent is a set of cues that increase one's aversion toward performing a given act.

Although incentives and deterrents are often quite complex, all of their components belong to one of two basic classes. The first type, an instrumental cue, displays information about the conditions controlling the production of a consequence. Suppose a carnival operator tells you that the object contained in a sealed cardboard box can be purchased for $5.00. His words are instrumental cues because they provide information about the act needed to produce

a consequence. The second type, a terminal cue, displays information about the valenced qualities in a potential consequence. Here the carnival operator might tell you that the box contains a very attractive panda bear without saying anything about how the bear can be purchased. In most everyday situations, the two types of cues usually exist together rather than independently. The typical classified advertisement, for example, is a complete incentive because it tells us how an item can be purchased and describes the item's desirable qualities. Likewise, a statement from our boss that we will be fired if we continue to take five coffee breaks a day is a complete deterrent because it identifies the act that will be consequated and describes the undesirable nature of the consequence.

The motivational cues that operate in social life are often very subtle. One afternoon a father may complain to his daughter about her heavy smoking. Later in the day he may offer to let her drive his new Jaguar to college if she is "good." Even though the potential relationship between act and consequence has not been stated explicitly, the daughter will probably lose no time in inferring it. In this case, some of the cues were presented in the past and then retained in the form of theses about her father's general behavior patterns.

Complex Motivational Conflict. The only form of conflict that we have discussed so far involved a desire and an aversion toward the same program. But conflict can also involve multiple programs. Complex motivational conflict occurs when a person possesses two or more desires that are directed toward incompatible programs. For example, a student may have a desire to go to a party between eight and ten o'clock on Saturday night and another desire to go to a movie during the same period. Since these two programs cannot be executed simultaneously, there is a conflict. This form of conflict is resolved by a selection process that automatically executes only the predominant (i.e., most potent) program at any one moment. In other words, programs compete on the basis of their net activity level, and only the most active one prevails.

Intention. The term intention has been very difficult to define within the narrow limits of traditional psychological theories. While cognitve theories can deal adequately with the cognitive aspects of intention, they have little to say about the emotional aspects. Behavioristic theories have brought some important aspects of emotion to our attention through the concept of "reinforcement," but they have not

developed a clear explanation of how reinforcement works. The breadth and integration in our framework enables us to overcome these deficiencies.

An **intention** is either an effective desire or a potential desire that one is emotionally committed to execute. In saying that it is a desire, I imply that it is based on an expectation of reward, since all desires by definition depend on such an expectation. Intention is thus more sophisticated than a motivational reflex, which depends entirely on primitive pathways. In describing the first type of desire as **effective**, I am saying that it predominates over all competing motives (which means that it is actually producing execution at the present time). The second type of desire covers the case that has traditionally been more difficult to define. A person may intend to do something even though he or she is not currently doing it. I describe this type of desire as **potential** because it lacks current effectiveness, but I also say that it contains an emotional commitment to its execution to indicate that it is much more potent than the typical potential desire. It is a desire that has gained potential predominance within the context of a given expected future situation, so that it will become effective as soon as that situation is encepted. Finally, when I say that it possesses an emotional **commitment**, I mean that the person expects to be punished for not executing it when the proper situational cues are present. Such a commitment usually results from a prior interpretation of oneself as having decided to execute the program. Failure to actually do so then threatens to evoke a negative self-evaluation. All of these considerations testify to the complexity of intention.

Intention is very useful in defining other terms. An **act**, for example, can now be defined as an intentional motor response, which makes it the most complex and sophisticated form of human response. A **transaction** is an act, the consequences produced by that act, and the process of encepting those consequences by either the actor or someone else. Society generally evaluates an individual's responsibility for an act according to the level of intention behind it. A man who intentionally runs over a child is prosecuted for murder, whereas one who does so inadvertently while attempting to avoid a pot-hole in the road is prosecuted for manslaughter or is exonerated of all responsibility. Intentionality implies that the person possessed sufficient anticipation of an act's consequences to have controlled them. It also implies that he evaluated those consequences as personally acceptable--otherwise he would not have performed the act.

An act whose consequences were intended is therefore considered to be a highly diagnostic (reliable and valid) indicator of personality. It is an accurate expression of a person's true underlying attitudes.

In the next section, we will briefly examine some concepts that are helpful in the analysis of attitudinal learning.

ATTITUDINAL LEARNING

Learning can be defined as the development of relatively permanent, stimulus-induced changes in the way the psychological system processes information. It involves all three phases of information processing. Enception, for example, determines the nature of the information learned. Whether or not a person learns to like an acquaintance depends on how he or she initially codes the acquaintance's behavior into memory. Retention then preserves what has been encepted. Finally, expression contributes to learning by enabling the psychological system to influence the stimulus and test its controllability. Expression can also intensify the learning process, as during the active rehearsal of a new response.

Over the years many different types of learning have been identified by theorists, and many different schemes have been invented for comparing the different types to one another. Out of all of this work, one dimension emerges as an especially valuable tool for analyzing human learning. This dimension is the degree of learner participation in the stimulus situation. A learner participates by making physical contact with a stimulus, by evaluating a stimulus as a consequence for himself or herself, or by personally influencing the nature of the stimulation that he or she is encepting. As one can see, each of these conditions in some way personalizes the learning experience. Their presence is therefore likely to increase the associative strength and motivational significance of the traces that the learner acquires. When the learner is not participating in the stimulus situation, we say that he or she is observing it. Observation usually involves vision or hearing (rather than the more emotionally potent channels of touch, taste, and smell). It also involves consequences for other people rather than for the learner.

There are two types of observation. In direct observation, the original stimulus is made available to the learner's own receptors. An example would be an observer at a football game, who directly witnesses the action on the field. In indirect observation, the learner is presented with a second-hand representation of the primary stimulus. Here the football fan might read a newspaper account of the game or watch the action on television. A major point to keep in mind is that direct observation often has greater credibility because of its concreteness and freedom from distortion by an intervening communicator. "Seeing is believing." But indirect observation, especially when it

involves verbal symbols, has the advantage of providing a
concise abstract interpretation of the stimulus. Barbara
Tuchman's book The Guns of August, for instance, provides
an excellent description of the episodes leading up to
World War I. She has reorganized an enormous body of
information in a way that adds to the understanding of even
those who participated in the original episodes.

The next section integrates many of the principles
examined earlier. It attempts to explain the overall
process by which people cope with the pressures and
opportunities around them.

COPING PROCESSES

It is a Tuesday morning in November, and Greg is walking across campus to attend his first class of the day. His psychological system is encepting external information about the people and buildings around him. It is also encepting internally preserved memory information about last weekend's activities. The combination of these diverse cues occuring together causes him to wonder what he will be doing on the forthcoming Saturday night. He recalls a friend saying that the Tri Gamma Omegas are holding a special open house, complete with band and free mixers. The expectation of a good time at little cost produces a highly potent desire to attend the party. But then he feels a twinge of anxiety as he contemplates the possibility of not finding an attractive young lady to accompany him. Quickly he formulates a scenario that disaffirms this threatening expectation. He imagines himself walking up to Camilla Rodriguez and asking her if she would like to have some Danish pastry and coffee with him. During the imagined encounter that ensues, he displays respectful interest in everything Camilla says and a feeling of relaxed confidence in himself. He then imagines asking her to the party and hearing her say "Yes." His expectation of success suddenly receives a surge of added affirmation, and he decides to find Camilla as soon as class is over. Later he executes his plan and succeeds in persuading Camilla to go out with him.

Greg has been coping. Coping is the total process of obtaining gratification and need fulfillment through the execution of motivated responses. At the simplest level, intrapsychic coping can provide gratification solely through the regulative control of interpretations and idealizations. Greg used this mode of coping when he reassured himself that he could find a date. At the most complex level, transactional coping provides benefits through some act involving the environment. Greg coped transactionally when he began searching for Camilla after class. To the extent that either form of coping is motivated by a desire to reduce distress, it is referred to as defensive. The reassurance that Greg gave himself was defensive because it was motivated by a desire to reduce fear.

Let us now examine these coping processes in greater detail,

Basic Forms of Motivated Interpretation

Since interpretations can be modified more easily than idealizations, they are the principal means of intrapsychic coping. Our earlier principles about interpretation suggest that such coping can take four basic forms, of which three involve modifications in cognitive content and the last involves modifications in judgment.

Motivated Characterization. The first form of motivated interpretation occurs when regulation produces changes in the way we characterizes a stimulus. Thus, a young man sitting on a park bench may formulate a self-characterization that accentuates his handsome physique and disaccentuates the pimples on his face. This means that the cognitive units for his physique become more potent as a result of retensification, while those for his pimples become less potent as a result of repression. Sometimes a positive unit is substituted for a negative one, as when a person thinks I am clever at fooling people rather than I am dishonest. Because a particular unit is evaluated within its larger cognitive context, we cannot say that motivation always favors the accentuation of positive over negative units. We can only say that motivation favors the formulation of characterizations that produce gratification within the context of all interpretations active at a given moment. A prejudiced person may thus formulate the derogatory characterization Blacks are lazy because it bolsters the self-aggrandistic characterization I am better than Blacks. The only way to predict the direction that motivated characterization will take is to analyze the valence of all idealizations relevant to the characterization. This principle also applies to all other forms of motivated interpreation.

Motivated Attribution. The tendency to explain past events in a gratifying way is one of the most powerful forces in our thinking. We tend to credit (attribute benefits to) ourselves and blame (attribute detriments to) others. Research has shown, for example, that each member of a team tends to credit himself or herself for team successes and to blame his or her teammates for team failures. Similarly, we tend to decredit others (interpret them as not causing benefits) and to exonerate ourselves (interpret ourselves as not causing detriments). Keep in mind, however, that there are some important exceptions to these general tendencies. Research indicates that people will sometimes exaggerate their responsibility for a detriment if such self-blame enables them to obtain a compensatory display on some highly valenced dimension

of self-evaluation. After doing poorly on a test of skill, for example, you may overblame yourself as a way of displaying your objectivity.

Motivated Expectations. Since the future holds many of our most important consequences, our interpretations of it are bound to have a substantial impact on our current hedonic responses. The coping functions of optimism, or positive expectation, are relatively easy to explain. Optimism's positive content enables it to activate corresponding positive idealizations, which in turn excite anticipatory gratification. In addition, optimism can perform a more indirect coping function by encouraging initiatives that we might otherwise not make. Most of us would not pursue our studies if we were not optimistic about the chances of graduating and ultimately securing an advantageous position. This optimism may then actually increase our chances of success by intensifying our efforts.

The coping functions of pessimism, or negative expectation, are more complicated. Pessimism primarily serves as a defense against frustration and related anxiety by reducing one's emotional involvement in some detriment. Thus, the expectation that one will definitely be detrimented tends to weaken one's attempts to prevent the detriment. This shifts one's attention away from the detriment, which reduces fear. It also eliminates the exertion cues and anticipatory gratification that would be excited by the expectation of success. According to our principles of hedonic arousal, this greately reduces the possibility of later frustration. We can see, then, that pessimism can provide very powerful gratification in individuals who have a low threshold for fear and frustration.

An especially important instance of such defensiveness has been studied in individuals with chronically negative self-interpretations. When such individuals fail at a task, they tend to place excessive blame for the failure on themselves instead of trying to shift the blame to external factors like most people do. This phenomenon has traditionally been explained in terms of cognitive consistency theory (e.g., Festinger, 1957), which argues that the striving for logical compatibility between cognitions is so strong that it frequently predominates over other motives. In this particular case, the theory contends that some people blame themselves for failure as the only way of maintaining logical harmony with their chronically low self-interpretations. Thus, they think I am basically incompetent--therefore the failure must be my fault. But

our general motivational framework suggests that a more compelling explanation can be found in the principle of defensive pessimism. Since people with negative self-interpretations are highly vulnerable to distress, they are inclined to blame themselves as a way of promoting pessimistic expectations that reduce their emotional involvment in future failure.

      Motivated Judgment. In addition to its effects on interpretive content, motivation can also influence the underlying judgmental process. Recall that an interpretation can receive judgment from secondary sources. The belief I am a good tennis playier, for example, can obtain secondary affirmation from its accordance with the corroborative beliefs I won my last five matches and I am a good athlete. This principle suggests that a belief's judgment can be substantially influenced through the selective retensification and repression of secondary beliefs. One can thus intensify the affirmation of I am a good tennis player by focusing attention on I won my last five matches. A delusion occurs when motivation intensifies the affirmation of a grossly inaccurate belief. A male mental patient may delude himself into thinking that he is Jesus Christ by retensifying beliefs about his similarity to Christ (e.g., Christ was persecuted, and I am being persecuted). Denial exists when motivation causes a person to strongly disaffirm an accurate belief despite clear evidence corroborating the belief. The would-be Christ might deny his mortality by retensifying beliefs like I've never been seriously ill. When one successfully resists the temptation to deny a negative fact, the process is called acknowledgement. Motivation can also reduce the intensity of judgment, which enables a person to have fantasies and dreams. These often provide gratification through their unrealistic content.

Specialized Forms of Motivated Interpretation

      We are now ready to examine the way the basic processes discussed above can combine to produce more complex and specialized forms of motivated interpretation. These include projection, intellectualization, humor, justification, and belief internalization.

      Motivated Projection. To project is to assimilate valenced information about oneself into one's interpretation of an external stimulus. In affiliative projection, one projects a personal quality onto another person as a means of strengthening one's identification with him or her.

A youth who intensely enjoys ballet might project this attitude onto a companion as a way of feeling supported by a sympathetic environment. In disowning projection, one projects a personally negative quality onto another person as a way of preventing oneself from consciously acknowledging one's own possession of the quality. A male soldier with an exaggerated self-idealization of masculine courage might project his fear of the enemy onto his buddies. This allows him to think about fear without having to acknowledge that he is the one who is frightened.

Motivated Intellectualization. We are continually bombarded by threatening information about events we cannot control. Well educated individuals are especially prone to cope with the resulting distress through intellectualization, which is a process that uses highly abstract concepts to reinterpret threatening information in a more neutral manner. A man who is threatened by news of widespread starvation in India, for example, might think The Indian economy is currently producing insufficient food to meet domestic demand. This interpretation reduces his vicarious distress by substituting the impersonal and emotionally neutral concepts insufficient food to meet domestic demand for the more personal and valenced concepts people are starving.

Motivated Humor. Humor is an attitude of playful cleverness that enables one to accept a positive egocentric fantasy. It has three interpretive components. First, it contains an interpretation that reduces some prior perplexity. This can be seen most clearly in the punch line of a joke, where a clever shift in meaning unexpectedly eliminates the interpretive conflict in some previous statement. The cleverness of this response provides a gratifying sense of competence and encourages further interpretive flexibility. Second, humor contains a positive reinterpretation of a previously threatening stimulus. This often takes the form of a forbidden derogation or romantic fantasy that reduces some underlying distress. Many of Johnny Carson's jokes, for example, promote the fantasy that national problems like the energy crisis are the fault of corrupt and incompetent leaders in Washington, thereby encouraging us to ignore our contribution to these problems as consumers and voters. Third, humor contains a playful interpretation that enables one to deny the gratification obtained from the second interpretation. This playfulness often takes the form of a display of intentional exaggeration and inappropriate pleasure. In effect, the person is saying "It's all right if I have fun playing

around with these facts--no harm will result because I really
don't believe what I'm saying." Unconsciously, however, he
or she is giving the second interpretation enough affirmation
to derive substantial gratification from it.

Motivated Justification. A justification is a belief
that a given response is, or has been, motivated by accurate
interpretations and syntonic idealizations. The pressure
for justification is ever-present because we place a substan-
tial part of our personis in evaluative jeopardy every time
we perform a response. To respond foolishly is not only
to risk punishment and lack of reward from the environment;
it is also to risk severe self-derogation. Research on
justification has shown that the desire to justify a response
increases with (a) the degree to which one believes that
the response is diagnostic of one's personality, (b) the
intensity of one's prevailing desire for self-aggrandizement,
and (c) one's expectation that the justification will not
be contradicted by future information.

Motivated Internalization. When one internalizes
someone else's attitudes, one encepts information about those
attitudes in such a way as to develop attitudes of one's
own that are similar in content and function. An important
motive for belief internalization is a desire to accommodate
oneself to others without deceiving them and without acknow-
ledging such accommodation to oneself. A girl may thus
internalize her father's political beliefs so she can avoid
his disapproval while at the same time avoiding the sense
of inauthenticity that she would feel if she merely
pretended to agree with him. The internalization of
beliefs can also be motivated by a desire to strengthen
one's identification with someone whom one admires. The
girl may thus adopt her father's beliefs so she can feel
a vicarious sense of competence.

This concludes our analysis of motivated interpretation
as a coping process. We shall next examine motivated
idealization.

Basic Forms of Motivated Idealization

Idealizations are more difficult than interpretations
to control by immediate regulative feedback, but they can
be gradually shaped by long-term regulative influences.
There are four forms of such motivated idealization.

Self-Idealization Through Admiration. Since admiration
of someone else often produces an initial sense of inferiority,

there is a tendency to weaken that distressful response by strengthening one's identification with the admired person. A boy who admires a famous football player may thus reduce his sense of inferiority by accentuating the athletic skills that he shares with his hero. If a person identifies with a sufficient number of heroes possessing the same trait, he or she will gradually transform these identifications into a stable positive self-idealization of the trait. The boy, for instance, will develop strong idolaments and values for football skills as part of his self-idealization of competence.

Self-Idealization Through Contempt. A feeling of contempt tends to produce an idealizational effect opposite to that produced by admiration. One thus disidentifies with a contemned trait and develops a negative self-idealization of it. After observing the ridicule received by a timid classmate who refuses to play football, the boy in the above example may then disidentify with the classmate and begin to develop a negative self-idealization of timidity. This process is especially important in promoting the development of positive self-idealizations for altruism. For example, a typical boy first learns to contemn the villains who have victimized him. Then, under new circumstances, he victimizes someone himself. The latter act causes him to feel contempt for himself by strengthening his identification with the villains in his life. Finally, to reduce this self-contempt, he begins developing a positive self-idealization of altruism that weakens his identification with the villains.

Self-Idealization as a Defense Against the Negative Implications of Compliance. Compliance is a form of accommodation in which a person performs an act explicity requested or demanded by someone else. When a compliant act conflicts with one's own preferences, it tends to directly threaten one's personis by implying that one is too emotionally dependent to resist social pressure. To avoid this distress, one may internalize the requester's implied idealizations so one can then more easily justify one's compliance. In other cases, the major direct threat from compliance is to one's ecos. Consider a girl who is punished by her mother for hurting a neighbor child. Since the punishment evokes anxiety that the mother's affection may be lost, the girl quickly develops a desire to avoid the disapproved act. But that desire itself soon becomes threatening because it implies that the mother's affection is imperfect and conditional (i.e., that it is not "True Love"). To get herself out of her dilemma, she then

unconsciously begins internalizing her mother's values for
altruism so that she can feel that she is complying with her
mother's rules out of genuine sympathy with them rather than
as a means to reward.

The Idealization of Justice as a Defense. Justice is
one of the most powerful but ambiguous concepts in our
thinking. Basically, we develop positive idealizations of
justice as a defense against the intense distress often
excited by our unsatisfactory transactions with others.
Chronic conflicts and disappointments cause us to see others
as alien forces existing largely outside our control.
We then develop customs or laws that force people to be
more accommodating and altruistic, which we call justice.
As a reflection of its flexibility and cultural relativity,
justice can be formally defined as a condition in which
everyone receives the consequences that he or she deserves
according to the rules of deservingness prevailing in a
given culture.

There are five major rules of deservingness in our
culture. First, we feel that a person should be given
the consequences that we would desire if we were in his or
her place. This is a derivation of the biblical golden rule.
Second, a person should receive a net consequence from a social
transaction proportional to his or her relative contribution
to the net total consequence to all parties concerned. This
is usually called the equity rule since it is similar to
the financial concpet of equity, where profits from the
sale of property are divided according to the relative size
of the investment initially made by each party. Third, all
persons should receive the same consequences regardless of
their contributions to the total group consequence. This
equality rule obviously conflicts with the equity rule,
just as capitalism conflicts with socialism in political
philosophy. Fourth, a consequence should be predictable.
It would thus be unjust to punish someone without first
warning him or her. Fifth, a person possessing inadequate
competence or syntony should not be forced to adhere to
the same rules of justice imposed on other members of society
unless those inadequacies are within the person's capacity to
rectify. An example of this mercy rule would be the provision
in the law that prevents the state from punishing a murderer
who has been judged insane by the courts. A more common
application is the giving of welfare benefits to the disabled.

Transactional Coping Processes

The key to understanding transactional coping is to

recognize its close relationship with intrapsychic coping.
The present theory proposes that all transactions are
motivated by the desire to change intrapsychic processes.
Transactional coping can thus be considered an extension
of intrapsychic coping in the sense that it provides an
external channel for producing desired attitudinal changes.
Consider a girl who feels inferior to her older sister.
She may learn to cope with this negative self-interpretation
by engaging in grandiose fantasies about vanquishing her
sister in the Miss America contest. But such pure intra-
psychic coping is often inadequate. Reality continually
contradicts and disrupts unrealistic fantasies, so that
they usually fail to provide adequate control over the
distress motivating them. It is at this point that we
turn to transactions as a more powerful sources of grati-
fication. The girl might decide to prove her superiority
by becoming a better tennis player than her sister. If she
is successful, the favorable sensory feedback made available
by her action will provide a more enduring improvement to
her self-evaluation than she could have ever obtained
from her fantasy. The key point, however, is that the
primary change--a new self-interpretation--is the same in
both cases.

Display. An analysis of how we display information
can sharpen our understanding of the above principle.
Display is the general process of causing information
about oneself to be available for sensory enception by
oneself or others. Display is not necessarily motivated.
Our voice qualities are automatically displayed when we
talk. But much of display is motivated because it provides
an especially powerful means of obtaining personic grati-
fication.

Display exists in two basic forms. During introdisplay,
one causes information about oneself to be displayed to
one's own receptors. When a woman gives money to charity,
for example, she is engaging in introdisplay to the extent
that she is causing sensory information about her altruistic
attitudes and competencies to be encepted by her own
psychological system. Thus, she might be using the highly
credible voice and visual cues from her physical movements
as a means of proving to herself that her altruistic
values are sufficiently potent to actually motivate an
altruistic act. Introdisplay is sometimes unintentional.
In the above situation, the sound of the woman's own voice as
a sensory stimulus may cause her to take a more objective
attitude toward her act. This enhanced objectivity may
then cause her to become aware of her desire for approval

and to realize that the act has an underlying egocentric quality to it. When introdisplay is motivated, the crucial desire is usually unconscious because otherwise the credibility of the resulting information would be seriously impaired. One would recognize that one was just trying to impress oneself.

Extrodisplay consists of presenting information about oneself to others. The principal motive in intentional extrodisplay is to influence another person's competencies and attitudes. Consider a father who rides a bicycle in front of his daughter and displays gratification while doing so. His motive could be both to improve his daughter's programming knowledge of how to ride a bicycle (i.e., influence her competence) and to strengthen her desire to ride a bicycle (i.e., influence her attitudes). In many cases, evaluative feedback from others is the ultimate consequence that is sought through extrodisplay. The father may expect that his daughter will ultimately feel appreciation for his efforts and display that appreciation to him. Her display of appreciation will then bolster his self-interpretation. Note that introdisplay and extrodisplay frequently occur simultaneously. The father's behavior on the bicycle causes him to encept sensory information about his competence at the same time that it produces extrodisplay of that competence to his daughter.

Dimensions of Social Transaction. Social transactions are very important in determining our overall level of gratification. To analyze them with greater precision, we need several preliminary concepts. A social transaction usually begins when one person performs an act of assertion toward another. Assertion consists of an attempt to control some external phenomenon (e.g., trying to move a piece of furniture or trying to change someone's attitudes). Although we could engage in social assertion through direct physical means (e.g., grabbing someone's arm to restrain it), we usually try to achieve our social goals by exerting attitudinal pressure on the other person. Attitudinal pressure consists of any information that tends to influence someone's attitudes. A friend's statement that he or she disagrees with your political views is an example of such pressure because it threatens your personis and activates a desire to attain greater agreement with your friend. Note that attitudinal pressure does not necessarily change the attitude in question; it only creates forces toward such change.

People often feel resentment of someone's assertion. Resentment is a negative evaluation in which one interprets

another person's act as motivated by a derogatory charac-
terization of oneself. Thus, if Al tries to persuade
Melanie to drive at a slower speed, Melanie may resent
Al's implied belief that his interpretive competence is
superior to hers.

Social transactions can now be analyzed along two
basic dimensions. The first of these is the direction
of recipient reaction. When one reacts with **accommodation**,
one responds in a way that has been encouraged by a given
encepted external stimulus or that increases the correspon-
dence between one's attitudes and the information contained
in such a stimulus. In the above case, you might adopt
your friend's political views in order to reduce inter-
pretive conflict and maintain your identification with him
or her. You might also accommodate behaviorally by pretending
to agree with your friend's views while actually maintaining
your original views. In this case, you would be accommodating
to the pressure to display agreement but not to the pressure
to actually agree. **Resistance** is responding in a way
that has been discouraged by a given encepted external
stimulus or that decreases the correspondence between one's
attitudes and the information contained in such a stimulus.
If resistance is motivated primarily by a desire to display
one's independence of external pressure, it is called
defiance. Thus a boy who is goaded by a companion to jump
off of a ledge may refuse with simple resistance because
he does not want to be injured. But he would be defiant
if his motive for refusing was resentment of the friend's
domineering attitude.

The second basic dimension of social transaction is
the intensity of assertion. As shown in Figure 9, four
distinct modes of social assertion can be ordered systemati-
cally according to their positions on this dimension.
Apprisement is the least intense mode because the asserter
is simply serving as an interpreter and transmitter of
information. As a result, the recipient usually feels
little resentment of the asserter's behavior. Suppose
Mary is trying to persuade her husband, Bob, to take her
on a vacation to Hawaii. She would be using apprisement
if she simply informed him of a special Hawaiian tour
that offers a 20% discount. Recommendation is the next
level of social assertion. This mode is more intense
than apprisement because the asserter is introducing his
or her own evaluations directly into the information
transmitted to the recipient. Moreover, the asserter is
presuming that his or her evaluations are superior to those
of the recipient. The recipient usually feels at least

MAXIMUM
ASSERTION
INTENSITY

COERCION is a message that inten-
tionally sensitizes another person
to some punishment that is under
one's control and intentionally
causes him or her to expect such
punishment for performing a given
response.

ENTICEMENT is a message that
intentionally sensitizes another
person to a reward that is under
one's control and intentionally
causes him or her to expect such
reward for performing a given
response.

RECOMMENDATION is a message that
intentionally communicates one's
belief that the recipient should
execute a given program in some
situation that is not under one's
control.

APPRISEMENT is a message that
intentionally communicates accurate
information about some situation
not under one's control without any
recommendation about how the recipient
should respond to that situation.

MINIMUM
ASSERTION
INTENSITY

Figure 9.   Levels of intensity in social assertion.

some resentment at the self-confident interference involved in recommendation. Mary would be using recommendation if she told Bob that a 20% discount is too favorable an opportunity for him to pass up. Apprisement and recommendation are considered guidant forms of assertion because the asserter exercises no influence over the external stimulus on which the communications are focused.

An important transition occurs as we move up to the next level of assertion intensity. In enticement, the asserter informs the recipient about a reward that he or she can control and expresses the intention of exercising that control in a specific way. It is this greater amount of control and the implied arrogance of taking advantage of it for personal gain that causes enticement to evoke a fairly high level of resentment. Mary would be using enticement if she told Bob that she would be willing to cook a special meal every night for a month if he will take her to Hawaii.

Coercion is the most intense mode of social assertion. It is similar to enticement except that the asserter controls a punishment rather than a reward. This shift to punishment is quite important because punishments are more difficult to tolerate emotionally and because they impose the absolute necessity of some kind of change. One can ignore the offer of a reward and still maintian one's status quo. But one cannot simply ignore a threat of punishment. One must either accommodate to the asserter's desires, attempt to exert counterpressure on the asserter, or face a change in one's external consequences. This extreme interference in the recipient's life and its implications of exceptional arrogance evokes a very intense form of resentment. Mary would be using coercion if she threatened to throw all of Bob's golfing trophies in a nearby river if he does not take her to Hawaii. Enticement and coercion are considered manipulative because they involve direct control over the recipient's consequences.

Major Superordinate Principles of Coping

As our discussion of coping comes to a close, I would like to give special emphasis to the following seven superordinate principles.

1. The Principle of Pervasive Defense. There are many

aspects of life that are dominated by pleasure-seeking
motives. Elation, for example, is a wonderful emotion that
brightens our lives and gives a positive tone to
much of our coping. But frustrations large and small
are continually annoying or enraging us, and fears are
excited by everything from the prospect of rejection to the
unpredictability and inevitability of death. As a result,
a large part of intrapsychic coping--perhaps the major
part--is spent re-ercepting negative information in ways
that reduce distress. This principle implies that intra-
psychic coping has a certain driven, compulsive quality
that it would not have if pleasure-enhancement were its
primary function.

In some cases, distress is excited very indirectly
through threats. A threat is a body of information
that activates a negative inference. A smirk is thus a
threat because it implies that the smirker has a derogatory
characterization of one's worth. Like many threats, a
smirk is primitively neutral. It only excites distress
through the mediation of an inference about the type of
attitude behind it. This suggests that an effective
defense against threats is to modify the inference involved.
Instead of inferring that a smirk is an indication of
one's own faults, one can infer that it indicates the
smirker's egocentricity and inauthenticity. Such intra-
psychic coping can sometimes be a more effective way of dealing
with threats than is transactional coping.

2. The Principle of Unconscious Self-Deception. We
have seen that coping often involves self-deception. A
young man exaggerates his physical attractiveness, an athlete
unfairly blames his or her team's failure on the other
players, a girl convinces herself that she shares her
father's political beliefs when in fact she does not. To
effectively perform this pervasive self-deception, large
segments of intrapsychic coping have to operate at an
unconscious level. There is no way that a sane person
can fully affirm an interpretation when he or she is conscious
of having grossly distorted it. Such distortions have to
be produced by processes lying outside of one's awareness.

3. The Principle of Pervasive Self-Aggrandizement.
The third principle is that coping activities are largely
directed toward improving one's self-evaluation. One
might ask why self-evaluation is so important. Why do
we not eventually become satisfied with ourselves? After
making a number of friends and winning election to a class
office in the seventh grade, for example, why does a

person continues to seek approval and social success? There are three major forces that maintain our self-evaluative strivings. First, self-interpretations are subject to the same associative decay that weakens all traces over time. Thus, by the time we are college students, our recall of a social success in elementary school has usually faded into a faint, indistinct memory at best. In this weakened state, its capacity to produce gratification through the activation of positive self-idealizations is quite inferior to that of competing self-interpretations generated by more recent events. Second, the affirmation of older positive self-interpretations is continually assaulted by counterpressure from more recent negative events. Over the years we have all lost elections, been passed over for attractive invitations, and generally met with innumerable small and large social failures. These events have produced negative self-interpretations that excite chronic distress and disaffirm our positive self-interpretations. Third every success causes our self-idealizations to grow increasingly demanding due to the underlying egocentric and romanticizing tendencies discussed earlier. A girl who once would have been satisfied with election to class office finds that her standards for measuring personal worth have become more severe as she has grown older. She now wants to be mayor, to belong to an exclusive country club, or to be an award-winning salesperson. No matter how great our past and current success, then, these three forces impel us to seek ever more evidence of our personal worth.

In the first three coping principles, I have emphasized the negative aspects of human nature because they are at the root of most social problems. Children are abused because aggression provides their parents with temporary relief from chronic feelings of inadequacy. Superior and subordinate cannot communicate effectively about their work because they are preoccupied with maintaining favorable interpretations of their relative status. The United States and the Soviet Union are competing feverishly for military power because the citizens and leaders of each country are looking at the other country with egocentric fears and frustrations. It is vitally important that we recognize and understand these maladaptive tendencies in human nature. But I also want to emphasize the more constructive forces in our make-up. This will be done in the remaining four principles.

4. The Principle of Innovative Cognition. One of the wonders of human nature is the capacity of our psychological

systems to formulate fresh and innovative cognitions. As
we saw in our opening discussion of cognition, this capacity
is based on our initial fragmentation of information into
distinct cognitive units. Units are then combined into
formulations that can go beyond the initial stimulus reality.
Thus, we can analyze the biochemical composition of molds
and eggs and then imagine how their components can be
transformed into an antibiotic like penicillin. We all
use this process in coping with the daily problems of
social life, as when we try to invent a way of communicating
an unpleasant fact to someone without hurting his or her
feelings.

To be sure, the capacity for innovative cognition can
be used destructively (e.g., the invention of atomic and
thermonuclear bombs). But its application to social
problems offers us the only real hope we have for resolving
the ominous dangers that beset our species. Fields like
psychology and political science are struggling to under-
stand the egocentric and defensive forces that push us
toward and away from aggression. If a satisfactory under-
standing of such processes is ever attained, exceptionally
innovative minds that now invent instruments of war could be
used to invent new methods of international communication
and new institutions of international government. At a
personal level, we could enrich our understanding of
ourselves and discover better modes of coping with the
problems of everyday life. Some progress is already being
made along these lines, but an enormous amount remains to
be done.

    5. The Principle of Compensatory Self-Discipline.
As we have seen, our emotions create constant and intense
pressures for immediate gratification. Operating alone, these
pressures would push us into a continuous series of foolish
and disastrous coping responses. We would shoot heroin
merely to gain a temporary euphoria, and we would murder an
offensive relative merely to reduce a temporary frustration.
But the emotions are fortunately subject to control by the
more sophisticated information about long-term consequences
that is cognized in mature beliefs and values. This
information enables one to gain compensatory rewards for
the sacrifices often required to give up maladaptive
behavior.

    Compensation is the rewarding of some act in such a
way as to neutralize at least some of the inhibitory
motivational effects of punishment that are also produced by
the act. Consider the motivation of a young man who is

studying on a night when his friends are having a party. He is able to make this sacrifice because the moderate elation that he gains from his success in studying is sufficiently gratifying to neutralize the frustration excited by his loss of social rewards. His behavior is adaptive in the long-run because he will be better prepared to earn a livelihood and to participate as a knowledgeable leader in the solution of community problems.

An interesting manifestation of the capacity for compensatory self-discipline is its promotion of objectivity. We are able to suppress the desire to distort reality because we have learned that distortions are often punished by some form of practical or social failure and that objectivity is often rewarded. The concept objectivity has thus developed into a positive value capable of compensating us for our efforts to be objective about negative information. So strong are the resulting strivings for objectivity that they sometimes motivate self-derogation (e.g., I am an awful tennis player, but look at how open-minded I am about my faults). Compensatory self-discipline also promotes social compromise. The study of human history shows that dissatisfied parties in a conflict often retaliate viciously against those individuals or groups who have taken advantage of them. The person who is capable of understanding the high probability of such retaliation can channel his or her emotions away from the most egocentric and self-destructive activities and toward cooperative efforts that produce maximum long-term benefits for all parties.

6. The Principle of Optimal Defensive Style. There are two basic modes of defending against threat. Expansion is the process of increasing the amount of threatening information that one accurately encepts. Thus, expansion occurs when one orients one's receptors toward a threat, retrieves a wide range of cognitions relevant to it, strongly affirms those interpretations that accurately cognize the threat, and accepts the full range of emotional responses that are evoked by one's relevant idealizations. In the opposite process, called constriction, one decreases the amount of threatening information that one accurately encepts.

Neither of these coping modes is perfect for all situations. Although constriction often provides immediate short-term relief from distress, it frequently narrows the range of one's gratifications and requires an undue

effort over the long-term. Suppose a man feels intense anxiety when exposed to sexual cues because he assimilates them into a negative epitheory of women that he developed from childhood experiences with his domineering mother. He may reduce his immediate anxieties by carefully avoiding women and denying the possibility that sexual intercourse could be gratifying. But over the long-term this constriction will exact a very high price in the form of rigid cognition and lost gratification. An expander might cope with the same threat by seeking therapy, working through the past humiliations with his mother, and seeking current relationships with women that enable him to learn more positive interpretations of them as a group. His anxiety will be high as he begins the coping sequence, but it will gradually decline as new interpretations and idealizations come into play.

The above example should not be seen as implying that expansion is always more adaptive than constriction. Research has shown that many depressed individuals spend more time thinking about their inadequacies and have more realistic interpretations of their inadequacies than do normal individuals. Similarly, constant rumination about the inevitability of death is not especially adaptive. The optimal coping style thus appears to be a mixture of expansion and constriction. Through the trial-and-error mechanisms of participant learning, each individual theoretically has the capacity to explore a wide range of coping modes in different situations and to select the mixture that produces the greatest net gratification for him or her. For this overall process to succeed, however, one should maintain a fairly expansive attitude toward new and unfamiliar responses in general. It is only by keeping one's psychological system open that one is able to test an adequate range of coping responses.

7. The Principle of Insightful Coping. In the final analysis, the most remarkable feature of the human psychological system is its capacity for insight. Insight consists of one's accurate beliefs about the nature of one's own psychological processes. Insight is not easy to attain. because of the pervasive defensive pressures that distort and repress threatening self-interpretations. Moreover, the psychological system is a very complex phenomenon that would be quite difficult to understand even without defensive counterpressures. Yet insight can be attained, and many case studies attest to its beneficial effects. Consider the above example of the man who dislikes women. He would gain an important insight if he were able to

attribute his unusual evaluations of women to their proper source (i.e., to his mother's influence). This insight would be valuable for two reasons. First, it would strengthen his desire to change. That is, he would see his emotional problem as a controllable consequence. Second, his insight would give him at least some of the programming competencies needed to make the change. Without insight, he would be inclined to take his derogations of women at face value or to misattribute his emotions to some genetic abnormality. The attainment of deep insight often requires external guidance from a psychotherapist. But many important insights are gained from spontaneous introspection and social feedback. Insight is not an infallible cure for all emotional disorders. In fact, one can often attain insight into a problem and still be bothered by it afterward. But it is an important resource in our search for more adaptive coping.

In the final section of the booklet, we will apply our overall theoretical framework to the study of personality.

PERSONALITY

As the unique configuration of psychological qualities possessed by a given person, personality is very difficult to study scientifically. Science seeks laws that apply equally to all identical entities. But psychological laws cannot be applied in a simple fashion to every individual because individuals are not identical. Each individual is a repository of a multitude of psychological influences that have combined and interacted with one another in extremely complex ways over a relatively long period of time. To be able to make a precise prediction about a given person's response to given situation, one would have to possess complete knowledge of that person's genetic make-up and the experiences that he or she has had since conception.

Nevertheless, a person's basic motivational tendencies can be measured with a fair degree of accuracy by focusing on episodes and motifs as the units of analysis. Recognizing that a single episode with a unique configuration of qualities can have a powerful impact on a person enables us to take the uniqueness of individual personality into account. But at the same time, we are able to draw general conclusions about personality by studying similarities in the episodes experienced by different individuals. The concept of thema is ideally suited for this type of analysis. A thema is a consistent pattern of attitudinal responses that is acquired through exposure to a series of similar episodes in one's life. It usually contains both a central thesis summarizing the most significant aspects of the motif and a set of lower-level theses and construals that have developed from the more unique qualities possessed by isolated episodes. It also contains a set of idealizations relevant to these interpretations. As a result, any thematic cue (i.e., any cue similar to those in the motif) will evoke a relatively consistent evaluative and motivational response in the person.

A Case Study of Lyndon Johnson

Doris Kearn's recent work entitled Lyndon Johnson and the American Dream offers an excellent illustration of how the present theory can be applied to personality. Her opening chapter on Johnson's childhood suggests that he developed four major themas.

Mother's Love of Intellectuals. Johnson's first thema can be called, "I'm very lovable to Mother, but only when I act like an intellectual." Rebekah Baines was raised

in a middle class family that instilled in her a deep
appreciation of intellectual pursuits, to the point that
she entered adulthood with serious aspirations of becoming
a professional writer. After a tragic financial setback
in the family forced her to marry into the lower class,
she had to abandon her most cherished hopes of great
personal achivement. But instead of forgetting them,
she displaced them with fierce determination onto her
first son--Lyndon.

Under the stimulation of his mother's encouragement,
Johnson was able to recite long passages of poetry from
Longfellow and Tennyson by the age of three. In looking
back at these episodes much later in life, he said: "I'll
never forget how much my mother loved me when I recited
those poems. The minute I finished she'd take me in her
arms and hug me so hard I sometimes thought I'd be strangled
to death" (P. 27). This type of episode, in which intellec-
tual achievement caused an expression of intense maternal
affection, occurred again and again in Johnson's childhood.
At the same time, any neglect of intellectual achievement
brought swift punishment in the form of withdrawn affection.
"For days after I quit [my violin and dancing lessons] she
walked around the house pretending I was dead. And then
to make matters worse, I had to watch her being especially
warm and nice to my father and sisters" (P. 27). The
general thrust of these episodes suggests that Johnson
acquired an epitheory that defined a large part of his
personal worth in terms of his ability to please his mother
and that specified intellectual achievement as the primary
cause of maternal affection.

The Courageous Protector. Johnson's second major thema can
be called,   "A heroic man is courageously protective of the
weak." In the development of this thema we see again the
important influence exercised by his mother. Sam, Lyndon's
father, had little sympathy with Rebekah's bookish aspirations.
He was a gregarious and talkative man who was often away
on business. During such absences, Lyndon would assume
the role of man of the house by performing the hard chores,
delegating other chores to his siblings, and ministering
to his mother's need for companionship and compassion. The
profound gratifications provided by this protector role
were vividly recalled later in life: "I loved
it when my mother needed me and when she told me all her
secrets" (P. 28). The protector thema was further crystal-
lized by the stories his grandfather would tell of herding
cattle across twelve hundred miles of dangerous country to
Abilene, Kansas. The most memorable theme in these stories

was the heroic role of the cowboy risking his life to
protect the herd during river crossings and stampedes.
Still another major source of inspiration for the protector
thema was the model of his father fighting courageously
in the Texas legislature to protect the rights of minorities.
Johnson's childhood thus exposed him to three gratifying and
mutually reinforcing sets of episodes--one involving direct
participation as the protector, the other two based on
observation of his grandfather and father as protectors.

As strong as Johnson's attachment was to Rebekah, he
encountered two other motifs that wrenched him away from
her.

Intellectuals are Ridiculous. His third thema can be
called, "Intellectual behavior is ridiculed by Father."
There was no doubt in Johnson's mind that his father
sensed and resented the emotional alliance between wife
and son. Once while sleeping in his mother's bed, Lyndon
felt terrified at what he mistook to be his father returning
home and entering the bedroom. More direct evidence of
Sam's hostility can be found in an episode in which Sam
forcibly cut off most of Lyndon's hair because he considered
Rebekah's styling of it to be too "sissy". Similarly, he
once forced Lyndon to shoot a rabbit because he had heard
that his son was the only boy in the neighborhood who had
never killed an animal. Lyndon was so upset that he
vomited. Confrontation with this masculine bravado and
ridicule was a pervasive aspect of Lyndon's relations with
his father. As he grew older, his mother and her intellec-
tual aspirations became increasingly interpreted as a
danger to his acceptability as a man. The intensity of
this fear can be seen in the reasoning that prompted him to
avoid going to college at one point: ". . . The prospect
of another four years [in school] was awful. It would
make me a sissy again and I would lose my daddy's respect"
(P. 43).

Politics. The fourth thema in Johnson's life can be
called, "Finding manhood in politics." During the early
part of his childhood, Johnson appears to have used his
grandfather as a substitute for his father. Through
identification with the grandfather's masculine heroics,
he was able to counteract the feminine pressures from
his mother without having to side with his father. But
this delicate emotional compromise was suddenly shattered
at the age of five by the death of his grandfather. During
the funeral, Johnson felt as if something within him had
"banged shut." His immediate reaction to this threatening loss

was a "feverish eagerness" to learn more about his father's life and to adopt more of his father's attitudes and behavior. In the years that followed he constructed his personality more and more after the model of his father's earthy language, extraversion, political maneuvering, activism, and jocularity. Although Rebekah continued to exercise an important influence throughout adolescence, Lyndon's central identification with Sam Johnson had grown sufficiently strong by the time he graduated from high school that he was able to reject her demands that he go to college.

Childhood Themes and Adult Behavior. The stimuli that one encounters in adulthood are often assimilated into childhood themas. That is, cues from one's immediate environment are interpreted by means of the construals and epitheories that one developed as a child. Since childhood themas often provide partly or entirely inaccurate interpretations of adult situations, they can motivate maladaptive behavior. It is very difficult to estimate the influence of childhood themas on adult behavior because of the multitude of factors that influence the latter. But we can make some interesting guesses by looking for patterns of adult behavior that seem to parallel earlier experiences or to be elicited by obvious thematic cues.

As an illustration of these principles, let us explore the motivational functions of President Johnson's childhood themas. In adulthood he showed an intense preoccupation with the art of clever political manipulation, a fierce nationalistic determination to protect America's interests from foreign aggression, and a bitter feeling of alienation from the nation's intellectual community. It is fairly obvious that his political preoccupations were stimulated largely by the example of his father. Of greater interest is the strong possibility that his almost fanatical attitude toward the Vietnam war was an outgrowth of his courageous protector thema coupled with the humiliations that his father imposed on him by the various tests of masculinity that he was required to pass. In his speeches, for example, he frequently defined the war as a test of moral courage and vowed that he would not be the first American President to lose a war (i.e., to be a "sissy"?). He tended to cast himself in the roles of heroic cowboy shepherding us across the dangerous Communist wasteland of the 1960s and of heroic leader demanding justice for the oppressed. Finally, his alienation from the intellectual community seems likely to have been a direct outgrowth of the defensive components in his identification with his father. One part of him always remained acutely aware of the almost magical power

that intellectuality had over his mother. But another part
was terrified of the feminine weakness that intellectuality
possessed in his father's eyes. He had long ago attempted
to resolve this conflict by turning away from his mother,
but a deeper part of his psychological system remained
awed by intellectuality. Therefore, to maintain a sense
of masculinity, he had to continually fight against his
hidden yearning by derogating intellectuals and extolling
the virues of pragmatic action.

Despite the serious conflicts that tore at Johnson's
psychological system, he was still able to develop a
relatively coherent and stable personality. His coping
processes appear to have selected the most gratifying of
the available themas as the central foundation of his
personality. Other thematic components that were compatible
with this foundation were then incorporated into it. Thus,
the foundation provided by his political thema was intensified
by his mother's passion for individual achievement. It was
also morally enriched by his father's and grandfather's
examples as courageous protectors. Notice how this process
selected the achievement aspects and omitted the threatening
intellectual aspects from his experiences with his mother.
This is typical of the innovative reorganization that
frequently occurs in personality development.

The overall pattern in Johnson's personality can be
seen more clearly through a summary analysis of his
personis and ecos. His personis was largely organized
around self-idealizations of competence, ascendancy,
industriousness, gregariousness, altruism, and amenability.
At a conscious level, it contained a complex network of
positive self-interpretations along these dimensions.
But at an unconscious level it also contained several
strong negative self-interpretations. His ecos supported
the positive and defended the negative components of his
personis through a rigid network of identifications and
epitheories. Of central importance were his identifications
with his father and grandfather. Closely related to these
was a typology that characterized vigorous political
action as courageous, altruistic, and intelligent (but
non-intellectual). Of more special importance later in
his life was an epitheory of history that facilitated his
development of favorable expectations of the altruistic
benefits from military intervention in Vietnam. Unfortunately
for all concerned, this particular combination of personic
and ecosic components was tragically ill-suited to the most
significant challenge that presented itself during Johnson's
career.

General Implications. The above analysis illustrates several important aspects of personality. First, the construals from different episodes can combine into a single thema if they have some core of common attitudinal significance. Second, different themas often conflict with one another. Third, themas that develop in childhood often influence adult behavior in ways that the person is not aware of. Fourth, thematic conflict is often resolved by the selective integration of the most gratifying and compatible elements from diffferent themas.

Concluding Comment

The topic of personality has provided a fitting end to our study of motivation. Many episodes contribute information to the system of interpretations, idealizations, and emotions that motivate a person's current behavior. Therefore, one can only understand a person's immediate motivation in any given situation by analyzing his or her attitudinal history.

-The End-

APPENDIX A: STUDY QUESTIONS

The following questions have been designed to focus your attention on the most important features of the booklet. An ability to answer them is essential to success on quizzes. Do not make the mistake of studying only the passages that relate directly to these questions. Since the booklet's ideas are highly interrelated, one must read all of it in order to use any part of it effectively. Students who try to study it in piecemeal fashion invariably find that such an approach actually makes their task harder rather than easier.

Please do not write on the pages where these questions appear, as they will be used during the quizzes. If you want to write notes next to each question, I suggest that you make another copy of the questions for this purpose.

A. Introduction

    1.   Why is motivational theory unnecessarily difficult to understand in its original form?

    2.   What are the three major purposes of this booklet?

B. Overview: The Psychological System

    3.   Describe the three major forms of information processing.

    4.   What is the difference between discrimination and generalization?

    5.   Briefly describe the functions served by the five basic subsystems of the psychological system.

    6.   What is the process of enception?

    7.   Describe the three levels of informational complexity.

    8.   Describe the difference between a unit and a formulation.

    9.   Describe the difference between an image and a concept.

10. Draw a table that classifies images, imaginalizations, concepts, and conceptualizations along the two dimensions of abstractness and organizational function.

C. Emotion

11. Describe the three major functions of emotion (as specified in its definition).

12. Explain the function of the hedonic arousal function of emotion.

13. Describe the difference between pleasure and distress.

14. Describe the different coding functions of sentia, elation, and animation.

15. Describe the different coding functions of deficia, noxia, frustration, and fear.

16. Describe and give examples of the two conditions that constitute gratification.

17. What is the difference between a positive and negative stimulus?

18. Explain the function of the associative control component of emotion.

19. Suppose trace A is paired with increased sentia and trace is paired with decreased sentia. Describe the different types of associations that these traces will develop to sentia's hedonic component.

20. Explain the function of the regulative component of emotion.

21. Describe the different types of regulative feedback that are transmitted to an isolated positive trace and an isolated negative trace.

22. Explain how a negative trace (such as one for failure) can receive retensification.

D. Idealization

23. Explain the general function of idealization.

24. Describe the two major components of an idealization.

25. Describe the major difference between an idolament and a value; include an example of each.

26. What is a metadrive, and why is it necessary to propose such a concept?

27. Define controllable consequation and explain the general effect that it has on human idealizations.

28. Define reward and punishment.

29. Define explanatory abstraction and explain the general effect that it has on human idealizations.

30. Define cognitive sympathicity and explain at least one of the effects that it has on human idealization.

31. Define egocentricity and give an example of it.

32. Describe the two limitations that produce egocentricity.

33. Define romantic abstraction.

34. Romantic abstraction is said to artificially segregate stimulus components. Explain how this process occurs and its importance for human idealization.

35. Romantic abstraction is said to produce a convergence of diverse bonds. Explain how this process occurs and its importance for human idealization.

36. Describe the difference between self-idealization and world-idealization; include and example of each.

37. List the four primary dimensions of person-idealization.

38. Define syntony and describe the type of syntony that you value most positively in yourself.

39. Define ascendancy and give an example of it.

40. Describe the difference between gregariousness and intimateness.

41. Define altruism and give an example of it.

42. Explain how an act can be both altruistic and egocentric at the same time.

43. Briefly describe the four major ways in which a person can acquire altruistic values.

44. Describe the difference between approvingness and amenability.

45. List the three ingredients of concordance.

E. Interpretation

46. Explain the general function of interpretation.

47. Explain how an interpretation's information about its accuracy influences its emotional effects.

48. What is the primary criterion for coding accuracy in the judgmental process?

49. Describe the two major components of an interpretation.

50. Explain the difference between affirmation and disaffirmation.

51. Explain the difference between perceptions and beliefs.

52. Explain the process of secondary judgment.

53. Define characterization and give an example of it.

54. Use examples to explain the difference between aggrandizement and derogation.

55. Define typology and give an example of it.

56. Define attribution and give an example of it.

57. Define thesis and give an example of it.

58. Explain the general functional relationships between attributions, theses, and inferential expectations.

59. Give an example from your own life of how a thesis can influence motivation.

60. Define construal and give an example of it from your own life.

61. Define scenario and give an example of it from your own life.

62. Define epitheory and give an example of it from your own life.

63. Explain how scenarios are developed from epitheories.

64. Define identification.

65. Give an example of disidentification from your own experience.

F. Complex Attitudes

66. List the three basic attitudinal processes and give an example of each.

67. Describe the difference between a simple evaluation and a composite evaluation.

68. Summarize the different functions served by the concrete and abstract forms of evaluation.

69. Give an example from your own life of the conflict between concrete and abstract evaluation.

70. Define personis and ecos.

71. Summarize the distinctive aspects of your personis and ecos.

72. Draw a diagram illustrating the different functions served by the personis and ecos in the evaluation of an external stimulus (see Figure 6).

73. Describe how consciousness is produced.

74. Explain the relationship between language and consciousness.

75. Define program and give an example of it.

76. Explain the difference between evaluation and motivation.

77. Explain the general function of motivation.

78. List the three major components of a simple motive.

79. Explain the difference between a simple motive and a composite motive.

80. Explain how judgment influences motivation.

81. Explain the difference between a desire and an aversion.

82. Define displacement and give an example of it from your own life.

83. Describe the difference between incentives and deterrents; include an example of each.

84. Describe the difference between an instrumental cue and a terminal cue; include an example of each.

85. Explain complex motivational conflict, using an example from your own life.

86. Explain the major psychological difference between a person who intends to perform some act in the future and a person who would like to perform the act but who has no intention of doing so.

87. Explain how a commitment is produced during the intention process and why it strengthens an intention.

88. Explain why an intentional motor response (i.e., an act) is highly diagnostic of the actor's personality.

G. Attitudinal Learning

89. Describe the three major differences between participatory learning and observational learning.

90. Describe the advantages of direct over indirect observational learning.

91. Describe the advantages of indirect over direct observational learning.

H. Coping Processes

92. Describe the difference between intrapsychic coping and transactional coping.

93. Explain the gratification that is obtained from a derogatory characterization.

94. Explain why a person might blame himself or herself excessively for some detriment that he or she has produced.

95. Explain how pessimism is gratifying.

96. Explain how motivated judgment produces a delusion.

97. Define affiliative projection and give an example of it from your own life.

98. Define disowning projection and give an example of it from your own life.

99. Explain how intellectualization provides gratification.

100. Give an example of intellectualization from your own life.

101. Describe the three components of humor.

102. Explain how humor is gratifying.

103. Define justification and give an example of it from your own life.

104. Explain one of the major motives that we have for internalizing other people's beliefs.

105. Explain how a person develops a self-idealization through admiration.

106. Explain how a person develops a self-idealization through contempt.

107. Explain how a self-idealization can serve as a defense against the negative implications of compliance.

108. List the five major rules of deservingness.

109. From your own experience, give an example of how an interpersonal conflict can be caused by different individuals having different definitions of justice.

110. Explain the basic functional relationship between transactional coping and intrapsychic coping.

111. Select an act that you recently performed. Analyze its elements of introdisplay.

112. Explain why the motivation for introdisplay is usually unconscious.

113. Select an act that you recently performed. Analyze its elements of extrodisplay.

114. What is the principal motive for extrodisplay?

115. Explain the difference between accommodation and resistance; include an example of each.

116. Explain the general relationship between intensity of assertion and resentment.

117. Describe the difference between apprisement and recommendation; include an example of each.

118. Describe the difference between enticement and coercion; include an example of each.

119. Explain why the transition from recommendation to enticement has such a significant effect on the recipient's evaluation.

120. Explain why coercion is the most intense form of social assertion.

121. Study the modes of assertion that you use during a given 24 hour period. Describe what you have learned about your assertive style from this exercise.

122. Explain the principle of pervasive defense.

123. Define threat and give an example that illustrates why its evaluative effects depend on inferences.

124. Explain the principle of pervasive self-aggrandizement.

125. Explain the principle of unconscious self-derogation.

126. Briefly summarize the three major reasons why people continue to seek improvements in their self-evaluations even after important successes earlier in life.

127. Explain the principle of innovative cognition.

128. Explain the principle of compensatory self-discipline.

129. Explain the principle of optimal defensive style.

130. Explain the principle of insightful coping.

I. Personality

131. Define thema and give an example of one in your own personality.

132. Explain the origins of President Johnson's thema entitled, "Mother's love of intellectuals."

133. Explain the origins of President Johnson's thema entitled, "The courageous protector."

134. Explain the origins of President Johnson's thema entitled "Intellectuals are ridiculous."

135. Explain the origins of President Johnson's thema entitled "Politics."

136. Explain how President Johnson's childhood themas influenced his adult behavior.

137. Summarize President Johnson's personis and ecos.

138. List the four general implications from our analysis of themas and personality.

139. Explain the relationship between one of your childhood themas and your adult behavior.

140. Describe what you think is the most important idea in this course. Justify your selection of this idea.

APPENDIX B: SELECTIVE GLOSSARY

The following is a list of additional technical definitions that will be useful in our discussions.   They are common terms that I have attempted to make more precise.

Admiration is a positive evaluation of the hypothetical possibility of possessing another person's traits based on one's interpretation of those traits as superior to one's own.

Affection is an intensely positive composite evaluation of another person that is based on one's interpretation of him/her as an exceptionally significant source of personalized, altruistically motivated support and on one's resulting identification with him/her.

Aggrandizement is a characterization that cognizes a given stimulus as superior to some standard stimulus.

Ambivalence is a composite evaluation that contains equally intense positive and negative components.

Anger is a negative evaluation of another person that is based on one's attribution of a specific intentional detriment to him/her.

Anxiety is a negative evaluation based on a conflictingly judged expectation that one will receive some detriment.

Attribution is a belief that cognizes a given phenomenon as the cause of another phenomenon.

Characterization is a non-explanatory interpretation of the spatial and temporal (time-based) arrangement of qualities within some object.

Derogation is a characterization that cognizes a given stimulus as inferior to some standard stimulus.

Disappointment is a negative evaluation based on a disconfirmed expectation of benefit.

Empathy is a temporary attitudinal similarity between oneself and another person that has been produced by one's conscious effort to imagine and identify with that person's attitudes.

Gratitude is a positive evaluation of another person that is based on one's attribution of a specific intentional benefit to him/her.

Hope is a positive evaluation based on a conflictingly judged expectation that one will receive some benefit.

Hostility is an intensely negative composite evaluation of another person based on one's interpretation of him/her as an exceptionally significant source of personalized, villainously motivated adversity and on one's resulting disidentification with him/her.

Justification is a belief that a given response is, or has been, motivated by accurate interpretations and syntonic idealizations.

Resentment is a negative evaluation of an act by another person that one believes was motivated by a derogatory interpretation of oneself.

Trust is a positive evaluation of another person that is based on one's interpretation of him/her as altruistic, sincere, and competent.

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