The Path to Coherence:
Resolving the Mind Body Problem in Eating Disorders

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By Emmett R. Bishop, Jr., MD

“…full well-being requires coherence, which transcends the dualistic distinction of the subjective and objective.”—Cloninger

In spite of much research concerning the etiology and treatment of eating disorders over the latter half of the twenty century, there are still a substantial number of patients who do not respond to standard treatment (Ben-Tovim, Walker, Gilchrist, et al., 2001). Specialized treatment centers are filled with patients who have personality disorders and co-morbidities which challenge treatment as usual. As a consequence, there is a constant vigilance to identify techniques which, though unproven, may help break through treatment resistance.

There has been increasing interest in applying the techniques of newer therapies such as enhanced cognitive behavioral therapy (CBT-E) (Fairburn, Cooper, and Shafron, 2003; Fairburn, 2008), dialectical behavioral therapy (DBT) (Linehan, 1993), acceptance and commitment therapy (ACT) (Hayes, Strosahl, and Wilson, 1999) and Coherence therapy (Cloninger, 2004) to the treatment of eating disorders. DBT was originally developed to treat the parasuicidal or self-harming individual commonly diagnosed with borderline personality disorder. Even with limited empirical evidence to support its use, many treatment centers are employing DBT tracts for their difficult patients (McCabe and Marcus, 2002). There are a few reports in the eating disorders literature of the use of DBT with bulimic and binge eating disorder patients (Telch, 1997; Wiser and Telch, 1999; Telch, Auras, and Linehan, 2000; Telch, Auras, and Linehan, 2001; Safer, Telch, and Auras, 2001; Palmer, Birchall, and Damani et al., 2003). For the other therapies the evidence is not so extensive or not yet published. A self-help manual has been published for acceptance and commitment therapy of anorexia nervosa (Heffner and Eifert, 2004) as well as a case report (Heffner, Sperry, Eifert, et al., 2002). There are no published reports of coherence therapy with eating disorders but I have been working extensively with its concepts and will lay them out as I have seen them with eating disordered patients in this paper.

While eating disordered behavior could be construed to be self-harming and often occurs co-morbidly with other self-injurious behaviors encountered in
borderline personality disorder, the shift to newer therapies seems to be due to a change in treatment emphasis from the pure cognitive-behavioral approach to an affect regulation model (Wiser and Telch, 1999). However, there are a number of reasons other than this, outlined by McCabe and Marcus, which make DBT and other newer approaches potentially effective with eating disordered patients. They have strategies for dealing with ambivalence about treatment, maintaining commitment to treatment, affect intolerance, and affect driven or mood dependent behavior generally seen in “difficult patients.” (See side bar 1)

What do difficult eating disordered patients with different co-morbidities have in common that can be targeted by the newer therapies? Based on my own experience and that reported by others (Bulik, Sullivan, Joyce, and Carter, 1995; Bulik, Sullivan, Fear, and Pickering, 2000; Diaz-Marsa, Carrasco, and Saiz, 2000; Fassino, Abbate-Daga, Amianto et al., 2002c; Gendall, Joyce, Sullivan and Bulik, 2002; Klump, Bulik, Pollice et al, 2000), they share extremes in temperament and character as defined by Cloninger, Svarkic, and Przybeck (1993). Eating disordered patients across all diagnoses have lower character scores on self-directedness and often on cooperativeness and self-transcendence than the general population. Those with the lowest scores on self-directedness as measured by the Temperament Character Inventory (Cloninger, Svarkic, and Przybeck, 1993) are the most difficult to treat (Anderson, Joyce, Carter et al, 2002; Bulik, Sullivan, Joyce et al., 1998; Bulik, Sullivan, McIntosh, and Joyce, 1999; Bulik, Sullivan, Fear, and Pickering, 2000; Fassino, Abbate-Daga, Piero, and Rovera, 2002b).

The Temperament Character Inventory (TCI) is an instrument which measures four dimensions of temperament and three dimensions of character. The temperament dimensions are novelty seeking, harm avoidance, reward dependence and persistence. The character dimensions are self-directedness, cooperativeness and self-transcendence. The TCI evolved from the Tridimensional Personality Questionnaire (Cloninger, 1987) which has also been studied in eating disordered patients. These studies have shown that individuals with eating disorders have an increased harm avoidance temperament (Brewerton, Hand, and Bishop, 1993). Restrictive anorexia and bulimic individuals typically sort along the continuum of low to high novelty seeking with bulimic persons having
higher novelty seeking scores. Reward dependence is not consistently associated with diagnosis but can impact significantly on treatment issues such as therapeutic alliance. Anorexic individuals may show high persistence which may interfere with their shifting mental sets to a more healthy orientation.

TEMPERAMENT DIMENSIONS

Temperament differences among people are determined by individual variations in perception of physical sensations as well as variations in processes of selective attention and emotional salience. This means that, in a sense, persons with different temperaments see the world through a different lens. Temperament is the manifestation of heritable biases in the brain that determine the importance of sensory information coming in, that is, whether it has relevance to the self. It also means that individuals have different responses of what is learnt outside of conscious awareness (pre-conceptually) or implicitly and what habits are formed along the several dimensions describing temperament—novelty seeking, harm avoidance, reward dependence and persistence. “Temperament describes what grabs our attention and how intensely we respond (Cloninger, 2004).”

The four temperament dimensions and the characteristics of high and low scorers on each dimension are shown in Table 1. They will be described particularly as they relate to eating disorders below.

[Harm Avoidance]

The harm avoidance dimension of temperament, so often intense in eating disordered persons, is an expression of the behavioral inhibition system of the brain. Those who are high in this temperament trait tend to over-estimate the risk of hurt. They feel the somatic aspects of anxiety more intensely than average persons. Consequently, they are more cautious, fearful, tense, timid, apprehensive, doubtful, passive, negativistic, or pessimistic in situations which do not worry other people. They tend to be inhibited and shy in social situations. Their cautious nature has an adaptive advantage when there are real risks but can be an impediment to healthy change in treatment due to their excessive avoidance of new experiences which promote extinction of anxiety.
High harm avoidance contributes to a life centered on anxiety management with an eating disorder. Eating disordered patients often report that they spend a major portion of their waking existence thinking about controlling their anxiety about eating, shape, and weight. High harm avoidance generally means less tolerance for anxiety and less willingness to have it in service of other valued life directions. The eating disorder is the main tactic for mentally avoiding life’s anxieties.

We do not find many individuals low in harm avoidance who have eating disorders. Those with low harm avoidance tend to be carefree, relaxed, and optimistic. They have confidence in situations of danger and uncertainty but this trait can be problematic when danger is ignored due to foolish optimism.

**Novelty Seeking**

Novelty seeking is a pre-conceptual bias in the brain which relates to behavioral activation. Those with high novelty seeking are drawn to the new and stimulating. Such individuals are quick-tempered, excitable, exploratory, enthusiastic, exuberant, curious, easily bored, impulsive, and disorderly. Bulimic patients typically show high novelty seeking traits. They have less tolerance for negative affect and a lowered capacity for delayed gratification. It is not surprising that high novelty seeking is associated with binge/purge behavior (refs). Higher novelty seeking is seen in anorexia nervosa cases with binge/purge behavior and is also associated with diagnostic cross-over from anorexia to bulimia (ref).

On the other hand, those with low novelty seeking temperaments would be the opposite. These people are more slow tempered, non-inquisitive, unenthusiastic, stoical, reflective, frugal, reserved, tolerant of monotony, systematic, and orderly. In eating disordered patients, low novelty seeking is seen in restricting anorectic patients. Such individuals tend to be slaves to routines and rituals because they like things to be orderly. Obsessive compulsive traits are frequently encountered with the combination of high harm avoidance (see above) and low novelty seeking (10-25% of anorectic patients) (refs).

Obviously, there would be adaptive advantages for persons at both extremes depending on the environmental niche in which they find themselves. High novelty seeking is advantageous when exploration for potential rewards in
new and unfamiliar places is necessary. Whereas low novelty seeking would be more adaptive where stability of effort were necessary.

Reward Dependence

The behavioral maintenance system of the brain is represented by the temperament trait of reward dependence. The reward dependence trait is manifested by individual differences in response to social reward. It is an indicator of social sensitivity or attachment. Those who are high in this trait are tender-hearted, sensitive, socially dependent, warm, and sociable. They easily form emotional attachments. High reward dependence can be advantageous when sensitivity to social cues is needed and the capacity to understand the feelings of others is beneficial. A disadvantage of high reward dependence ensues from being easily influenced by emotional appeals. On the other hand, low reward dependence such as seen in “difficult patients” impedes the formation of a therapeutic alliance due to detachment and lack of personal disclosure.

Persistence

Finally, other aspects of behavioral maintenance relate to the temperament trait of persistence. Persistence is a bias in the brain which concerns maintenance of behavior in the face of frustration, punishment, fatigue, and intermittent reward. Highly persistent individuals tend to be hard-working, ambitious over-achievers. They intensify their efforts in anticipation of reward and view frustration and fatigue as a personal challenge. High persistence is associated with anorexia nervosa and consistent with their well-known perfectionism and inability to shift mental sets. High persistence can be adaptive when rewards are variable but contingencies are stable. When contingencies change rapidly, doing something in the same way becomes maladaptive. Obviously, persistence when behavior has detrimental consequences, such as with eating disorders, is maladaptive.

CHARACTER DIMENSIONS

The character dimensions of the TCI can have much to say about treatment challenges with eating disorder sufferers and with personality problems. Different personality disorders have unique permutations of the temperament dimensions but temperament has little to do with maturity level or personality disorder. Treatment challenges largely relate to the character
dimensions of personality. In general, the level of maturity of an individual can be measured by the sum of the scores of the self-directedness and cooperativeness scales of the TCI. However, most personality disorders have low self-directedness in common. Thus, low self-directedness is associated with both personality and eating disorders. Low cooperativeness is also frequently encountered in those who are considered personality disordered. Eating disorders are often accompanied by lower self-transcendence scores which reflect a pervasive disconnectedness from other persons and the world around them.

The characteristics of high and low scorers on the character dimensions of the Temperament and Character Inventory are shown in Table 2. We will go into more detail on the character dimensions below as they are at the center of therapeutic change and the attainment of well-being.

[Table 2 about here]

Self-Directedness

Self-directedness is a dimension of a person’s character which has to do with the ability of an individual to control, regulate, and adapt behavior to the situation at hand in accordance with personally chosen goals, purposes, and values (Cloninger, Svrakic, and Przybeck, 1993). It reflects unity of the self or executive function and “specifies the overall degree of elevation of thought (i.e., clarity of initial intuitive recollection and recognition of reality)” (Cloninger, 2004). Problems with self-directedness arise when our thoughts and actions are at variance with or are antagonistic of our individual values, goals, and objectives. High self-directedness is associated with effectiveness in handling everyday life problems as well as recovering from an eating disorder (Bulik, Sullivan, Joyce et al, 1998; Bulik, Sullivan, Fear, and Pickering, 2000). Therefore, enhancing self-directness should be an important goal of recovery and many therapeutic approaches address this indirectly.

Cloninger and his group have identified five aspects of self-directedness:

1. Acceptance of responsibility for one’s choices instead of blaming other people or circumstances
2. Identification of individually valued goals and purposes versus lack of goal direction
3. Development of skills and confidence in solving problems (resourcefulness versus apathy)
4. Self-acceptance versus self-striving
5. Congruent second-nature versus lack of self-trust

Accepting responsibility for our feelings, beliefs, and actions is said to be a trait of mature individuals. It is easier to do this if a person sets realistic expectations of herself rather than to have perfectionistic and idealistic visions of being the most admired by all in everything she does. Accepting imperfection and the possibility of bad outcomes in life also contributes to assuming responsibility for one’s behavior. It also helps to develop a tolerance for conflict and an acceptance of other people’s judgments as a natural part of life.

Human beings are more than a disorganized set of reactive impulses. One functions best as a whole individual with integrated values, goals and purposes. To do this, one must identify our intrinsic personal values and reconcile them with personal aptitudes and talents, not those of others. Often, patients can be confused by values impressed upon them by social network pressures and can be led to temperamentally inappropriate activities dictated by outside forces. Inappropriate social messages may compel them to lose their self-determination and lead to the development of a false-self. Frequently, they displace overwhelming external relational issues to struggles with their bodies without recognizing it. Treatment must undertake the difficult task of defining personal priorities in terms of values and resolving conflicting goals so that one can comfortably maintain one’s wholeness or coherence.

Difficult patients lack a repertoire of skills or behaviors that guide them in problem solving or the means to creatively construct solutions. After one has cultivated clear goals and values over time, one’s response to situations becomes more automatic and second nature. The process begins with an appraisal of our inner and outer resources and with the identification of essential skills needed to be effective in living day to day. It is important to come to terms with criticism from others which can often be a deterrent to appropriate action. Likewise, we must accept that some of life’s problems are not simple to solve but can be a challenge worth taking given our personal values. Confidence is a function of the difficulty of the task, our assessment of our skills and abilities to do the task, and our perception of
other’s evaluation of our efforts. Often eating disordered patients are overly reliant or dependent on external cues to guide their behavior.

Self-acceptance is inextricably related to the facets discussed above. The ability to accept one’s limitations and appreciate our differentness is basic to self-directedness. This is facilitated by suspending self-judgment and exploring our possibilities in an uncritical way. Accepting our reliance on and interconnectedness with others without being self-depreciating can free one from unrealistic demands on the self.

Increasing awareness of the intuitive senses and our core values leads to a congruent second nature. A person begins to trust herself to act spontaneously without a feeling of suppressed conflict. An effective second nature is developed by mindfulness, visualization of desired behaviors, rehearsal of skills, repetition of desired behaviors, and identifying and focusing on our valued directions.

While low self-directedness is a characteristic of most people with personality disorders, it is not a trait limited to them. It reflects a lack of unity of the self frequently seen in the difficult eating disordered patient and others. Newer therapies offer a methodology for evaluating the factors underlying low self-directedness and skills for enhancing self-awareness as individuals seek increasing coherence.

Cooperativeness

Cooperativeness is the second character dimension of the TCI. It represents the degree to which the self is viewed as a part of society or unity with our community. It is our concept of our relations with others. Cooperativeness is also a measure of psychological flexibility and “describes the degree of flexibility of movement in everyday activities within the map of reality as it is recognized and interpreted” (Cloninger, 2004). Highly cooperative individuals have a strong capacity to identify with and accept other people. Cooperativeness has been reported to be low in several studies of anorexia nervosa and of bulimia nervosa especially in those whose fail to complete treatment (Fassino, Abbate-Daga, Piero, Rovera, 2002; Klump, Bulik, Pollice et al, 2000).

Cloninger has also identified five aspects of cooperativeness:
1. Acceptance of others as they are rather than having an attitude of intolerance
2. High attunement to and consideration of other people’s feelings versus insensitivity
3. Enjoying being of service to others rather than being self-centered and egotistic
4. Having a compassionate, forgiving, charitable, and benevolent attitude versus revengefulness
5. Pure-hearted principles with a sense of fairness as opposed to opportunistic, manipulative, self-serving behavior

As individuals mature, they generally become more accepting and tolerant of other people’s differences and faults. This reflects an inherent psychological flexibility and ability to understand the needs and wants of other individuals. An accepting stance in general allows us to deal with the natural order of things, that is, taking things as they are rather than as we wish them to be.

A high level of cooperativeness is also associated with empathic qualities. The ability to attune to the feelings of others while setting aside personal judgment enhances this capacity. Empathy involves the conscious understanding of and respect for the goals and values of others. Low scorers on this facet are insensitive to others feelings and, in my experience, are tuned out of their own feelings.

Individuals who are high on the helpfulness aspect of cooperativeness are people who enjoy being of service to others. They are team players who are helpful, supportive, encouraging of others with whom they delight in sharing their skills and knowledge. Often they seek to volunteer their resources to aid less fortunate persons. In contrast, those who are low on this facet are self-centered, egotistic, and inconsiderate of others. This is frequently encountered with eating disordered individuals who could benefit from experiencing community service.

People who conceptualize themselves as compassionate have the qualities of forgiveness, charity, and benevolence. They value human connection and try to push through injustices at the hands of others to make things work. They strive for the “win-win” situation in relationships. Revenge feels unnatural to them and they usually do not try to get even with hurtful people. Those who are low on this attribute take delight in revenge. They may show active-aggressive behavior such as physically or emotionally hurting others.
or they may be more passive-aggressive. In the latter case, they may indirectly sabotage things by delaying tactics, grudges, finding excuses, or deliberate forgetfulness. Such passive-aggressive tactics are frequently seen with eating disordered patients.

The final facet of cooperativeness identified by Cloninger is an integrated conscience. People who have a highly integrated conscience are honest, scrupulous, and sincere. There is an acceptance of pure-hearted principles or natural laws that cannot be violated without deleterious consequences for the person, community or nature. Those who are low on this attribute have not incorporated stable ethical principles and are opportunistic, self-serving, unfair, and often deceitful. Eating disordered individuals commonly have problems in this area.

**Self-Transcendence**

Self-transcendence is the final character dimension in Cloninger’s seven factor personality theory. Self-transcendence is the concept of our participation in the world as a whole. Another way of describing this concept is an individual’s identification with everything conceived as essential and as consequential parts of a unified whole. An intuitive awareness that we are an integral part of a greater system of natural order underlies this thought. “Self-transcendence specifies the degree of intellectual understanding (i.e., social radius of an individual based on his or her egocentric, allocentric, or nondual map of what is recognized intuitively) (Cloninger, 2004). Those who lack a sense of self-transcendence see themselves in a “local” way as isolated fragments in the universe. Psychiatric patients in general as well as those with anorexia nervosa tend to have lower self-transcendence. The interpretation of high scores on self-transcendence depends on the elevation of self-directedness. With low self-directedness, high self-transcendence scores can signal psychotic or schizotypal thinking.

Cloninger has noted that, theoretically, self-transcendence has five facets corresponding to the five subscales of the other two character dimensions. They are 1) sensible, 2) transpersonal, 3) spiritual, 4) idealistic, and 5) faithful. The TCI actually measures:

1. Creative self-forgetfulness as opposed to self-consciousness
2. Transpersonal identification versus self-isolation
3. Spiritual acceptance in contrast to rational materialism

Individuals who are high in self-forgetfulness tend to transcend their personal boundaries when involved deeply in a relationship or are absorbed in something they are doing. They have a sense of “flow” in which they forget where they are and lose awareness of the passage of time. In a sense, they become one with what they are engaged. Such people are often seen as creative and original. On the other hand, persons at the other extreme are intensely aware of their individuality in relationships or when engaged in their occupation. They are typically viewed as prosaic, unimaginative, and conventionally minded.

Those with high transpersonal identification experience a strong connection to nature and the universe as a whole. They feel a spiritual union with everything in the world around them. Making the world a better place can be a priority for these folk and they are willing to make personal sacrifices toward that goal. However, those low on this aspect of self-transcendence are unlikely to experience a strong connection to nature or other people. They are individualists who feel no responsibility for what is going on with other human beings or the other constituents of the world. They see nature as an “external object to be manipulated” to their practical advantage. This subscale of self-transcendence along with the one above can be a useful prognostic indicator, in my experience, of therapeutic alliance.

The last measured facet of self-transcendence is spiritual acceptance. Persons who are high on this aspect are believers in miracles, extrasensory experiences, and spiritual phenomena. They may evince magical thinking. More importantly, they may apprehend relationships that cannot be explained by analytical reasoning or demonstrated objectively to others. Self-transcendent cognition is intuitive rather than analytical and deductive and is often not amenable to expression in language. In contrast, those at the other end of this dimension are rational materialists. They are unwilling to accept things that cannot be scientifically explained. This is disadvantageous when one is facing situations over which there is no control or the possibility of evaluating by rational objective means such as many emotional responses, suffering, and punishment.

SELF-AWARE CONSCIOUSNESS
Since Hilda Bruch (1962) articulated the concept, impairment of interoceptive awareness has been a centerpiece of the psychopathology of anorexia nervosa. This lack of recognition of internal affective states is not limited to anorexia nervosa, however. Studies of alexithymia (a term which literally means “no words for feelings”) in patients with eating disorders such as bulimia nervosa or binge eating find that many of these individuals have difficulty identifying and labeling their emotional states (Bourke, Taylor, Parker, Bagby, 1992; Cochrane, Brewerton, Wilson, and Hodge, 1993; de Groot, Rodin, and Ohmsted, 1995; de Zwaan, Biener, Bach et al, 1996; Schmidt, Jiwany, Treasure, 1993; Bishop, 2006). It has been said that the primary regulatory dysfunction in eating disorders is impairment in the capacity to cognitively process and regulate emotions (Taylor, 1997). Binge eating and purging behavior can be seen as an attempt to influence, change or control (“get rid of”) painful affects which otherwise have little meaning to the individual. Obviously, those with poor interceptive awareness or alexithymia are going to have difficulties with affect regulation. Moreover, the same could be said for the problem of low self-directedness because there is evidence that it is correlated to some degree with alexithymia (Grabe, Spitzer, and Freyberger, 2001; Bishop, 2006). Table 3 shows correlations of TCI scales and the Toronto Alexithymic Scale (as well as the Three Factor eating Questionnaire) in a sample of gastric bypass surgery candidates. TCI self-directedness is correlated with self-awareness (Cloninger, 2004).

What is meant by affect regulation? Emotional response systems have important self-regulatory functions and inform the individual about the self in the environment. There is a reciprocal interaction between neurophysiological, motor-expressive and cognitive-experiential systems whereby each system may influence the other in effecting organism homeostasis (Taylor, Bagby, and Parker, 1997; Izard and Kobak, 1991). Affect regulation can be considered as part of the broader concept of self-regulation. It involves the ability to monitor and accurately appraise our emotional state and to use the action tendencies of our emotions in adaptive ways. Schore (2003) put it this way in discussing the goals of therapy:

[Affect regulation is] “(t)he self-organization…of an implicit self system capable of efficiently modulating a broader range of affects, integrating these discrete emotions into a variety of

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adaptive motivational states, utilizing affects as signals, and linking coherent behavioral states to appropriate social contexts (p. 281).”

This implicit self system strives to achieve a functional coherence but how is this accomplished? Cloninger realized that temperament and character development did not fully predict individual differences in awareness of reality or unity of being. He observed five levels of self-awareness corresponding to the five intuitive senses of 1) being and permanence, 2) freedom and purposefulness, 3) love and beauty, 4) truth and faith, and 5) goodness and unity of being. These five aspects of consciousness depend on intuitive awareness of the world so often absent or markedly diminished in eating disordered people. These are essentially five levels of self-awareness measured by the five subscales of TCI Self-Directedness (see table 4). So the problems identified as low interoceptive awareness and alexithymia may be framed in a different light by the hierarchy of self-aware consciousness delineated by Cloninger (see table 5).

[Table 4 about here]

Deficient Sense of Being and Permanence

Cloninger observed that many individuals with severe personality disorders lacked a stable awareness of their being and permanence. He noted that “the qualia of being can also be defined as the subjective awareness of the difference between self and other, which is needed for a sense of basic confidence in oneself and the sense of personal agency.” The awareness of personal agency is measured by the SD1 scale (responsible vs. controlled), the CO1 scale (tolerant vs. prejudiced), and the ST1 subscale (sensible vs. repressive). Persons who lack a sense of personal agency, such as frequently encountered in eating disordered patients, feel victimized, controlled, and abused. Lack of a stable sense of being is associated with interoceptive awareness problems, intolerance of distress, distortions of self image and reality testing, poor self-acceptance, and sublimation difficulties. When there is no intuitive awareness of self-object differentiation, a deficit in reasoning about the misleading impressions that engender false beliefs such as “fat” body image ensues. This is frequently seen in anorexia nervosa as well as bulimia nervosa patients. When there is a well-developed awareness of permanence, there is stable memory of existence and hopeful confidence in being.
Deficient Sense of Freedom and Purposefulness

Many people with eating disorders feel controlled by extrinsic influences (external locus of control). They experience a lack of flexibility in their actions and a lack of freedom of will. This is, moreover, reflected in an inability to delay gratification and to be charitable to others. Cloninger defines the qualia of freedom or voluntariness as the subjective awareness of freedom in the purposeful choice of what is wanted. An intuitive awareness of free will is necessary for the sense of power, voluntary intention, and purposefulness. This sense of power is measured by the SD2 subscale (purposeful versus aimless), the CO4 subscale (forgiving vs. revengeful) and the supplemental subscale ST4 (idealistic vs. practical). Many sufferers of eating disorders fight constant control battles with themselves and others. Much of their energy and mental focus is directed toward the management of emotions, pursuing feelings they would like to have and trying to escape those they do not want. They are not free to pursue their valued directions in life. Life for them is mainly about avoiding their internal experience. To this end, they live in a self-prescribed world of inflexible, constricted behavior in which they seek to minimize emotional responses.

[Table 5 about here]

Deficient Sense of Love and Beauty

While some eating disordered patients show the intuitive senses of being and of freedom, others have a limited intuitive awareness of what is beautiful and lovable. Cloninger defined the qualia of lovability and beauty as “the subjective awareness of the choice to be kind, to give love, or to create beauty in art or personal relationships.” The inability to accept ourselves as we are leads to a pursuit of acceptance by others. However, we cannot demand love from others. Eating disordered individuals are typically self-focused rather than allocentric in their awareness. The intuition of beauty is necessary for emotional contentment and allows acceptance of our self and others. The TCI subscale SD3 (accepting vs. approval-seeking), the CO2 subscale (empathic vs. inconsiderate) and the ST2 subscale (transpersonal vs. individual) measure this aspect of self-awareness. Patients with a limited intuitive awareness of beauty and love experience with only their physical senses. For them, there is no sense of awe and beauty at the sight of a majestic peak reflected in the early morning light on the still water of a mountain tarn. Many eating disordered persons have a semantic memory or
concept of what is considered fashionable and appealing, but little intuitive grasp of beauty. Without a stable sense of beauty, they lack a stable capacity for love and emotional intimacy in relationships.

**Deficient Sense of Truth and Faith**

A deficient sense of truth and faith is all too commonly lacking in eating disorder sufferers. Cloninger describes the qualia of truth and faith as the subjective awareness of the ability to control intentions to be meaningful. He distinguishes between the awareness of control of intentions from the awareness of choice about what is wanted. This is in essence the difference between the qualia of truth and the qualia of freedom. People who lack an intuitive awareness of absolute truth can not distinguish between what is attractive and desirable and that which is true and meaningful. The intuitive awareness of absolute truth is needed for a sense of faith, creativity, and resourcefulness. This intuitive sense is measured by the SD2 subscale (resourceful vs. inept), the CO3 subscale (helpful vs. unhelpful) and the supplemental subscale ST5 (faithful vs. skeptical). Eating disordered persons are often trapped in skepticism and lack faith that their bodies are self-organizing systems which are implicitly managed without conscious manipulation. Without intuitive awareness of the truth of their own nature, they are trapped in the rule governance of their semantic memories through which they live life. Such individuals without the sense of truth and faith live their lives with no context of what is meaningful in terms of person values and remain preoccupied with immediate emotions or feelings which reflect their prior conditioning or programming.

**Deficient Sense of Goodness and Unity of Being**

Since eating disorders by their very nature are manifestations of mind body incoherence, the intuitive sense of goodness and unity is lacking. Cloninger describes the qualia of goodness and unity as the direct awareness of the intrinsic goodness of all things despite the perversions and corruptions that exist in the world. A fully developed sense of goodness and unity is only rarely encountered. Nevertheless, persons who are highly developed in the three character dimensions have partial awareness. The intuitive awareness of goodness is measured by the SD5 subscale (hopeful sublimation vs. compromising deliberation), the CO5 subscale (Charitable principles vs. self-serving opportunism), and the ST3 subscale (spiritual awareness vs. local realism). Lacking in this intuitive awareness, eating disordered
individuals are shackled by mastery-seeking perfectionism, seeking solace in inflexible rules, and second guessing their decisions about eating and other things. They pursue a conceptualized self-image that holds the illusion of safety. As they impose this conceptualized self on their being, there can be no unity with their true nature. Hence, the classic mind body incoherence seen with eating disorders.

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Cloninger has contributed immensely to our understanding of the structure of thought which underlies much psychopathology. As we comprehend the structure of temperament and character and how they relate to the intuitive senses, we can grasp the limitations of many current treatments for eating disorders. We can begin to make the case for many of the strategies employed by some of the newer psychotherapies. We will address some of those strategies after further examining the stages of self-aware consciousness.

Newer therapies address some of the stickier issues of modern affective and neuroscience. As genetic research informs us that temperament and, even, character dimensions have significant heritable components, psychotherapy is forced to take a different slant. Therapies that aim to change mental content are less useful and less efficient. On the other hand, newer therapies focus on acceptance and self-transcendence and facilitate awareness of one’s true nature and that of the surrounding world. Rather than changing the contents of the mind, the aim is to find coherence and, simultaneously, well-being. Coherence is obtained by recognizing and releasing our resistance to the natural order of things and letting go of struggles with our own nature e.g., the genetic hand we were dealt or our prior conditioning.

GOING BEYOND TEMPERAMENT AND CHARACTER ISSUES TO ACHIEVE COHERENCE

Many psychotherapeutic approaches work by increasing, to some degree, self-directedness and cooperativeness, albeit inefficiently. For example, cognitive behavioral therapy (CBT) seeks to replace a set of thoughts considered dysfunctional with another set of thoughts considered by rational analysis to be functional. The rational basis for emotional responses is questioned by a Socratic method. However, this basis for emotional change has been challenged (Hayes et al, 2004?) as not being cognitive at all but
rather being ultimately experiential. The cognitive approach only repeats Aristotle’s errors (Cloninger, 2004) assuming that we can find well-being through pure reason. With eating disorders, the explicit cognitive processing approach of CBT is often part of the problem for persons with impairment in implicit processing (Steinglass, Walsh, 2006). This problem is analogous to the task of learning a foreign language by memorizing the mind-boggling number of rules while attempting to speak it fluently. Language fluency is best acquired intuitively by the implicit processes of procedural learning. Aristotle’s errors can be rectified by recognizing the primary role of intuition in self-aware consciousness. “Intuition is characterized by the holistic preverbal recognition on which subsequent labeling, reasoning, and emotional responses are based” (Cloninger, 2004).

Cloninger has described stages of self-aware consciousness through which we must pass on our way to purification of our intuition and, ultimately, to obtain coherence and well-being. Beginning with unawareness, a person progresses through average adult cognition, meta-cognition, and, ultimately, contemplation. These are summarized in Table 6. These stages of self-aware consciousness are actually the reverse of the steps in thought (see Table 7) which begin with the preverbal and unconscious initial outlook. They can be conceived of as starting below and progressing to above thought, in a sense, with thought as we usually think of it as being the two middle stages. We will discuss the steps in thought further when we return to initial outlook below.

[Table 6 about here]

[Table 7 about here]

Unawareness

Absence of self-awareness is seen in severe personality disorders and psychoses accompanying eating disorders. As previously mentioned, this may be an underlying factor in alexithymia and low interoceptive awareness. When there is little or no self-awareness, there is no consciousness of the preverbal outlook or beliefs and appraisals that automatically elicit emotional responses and their action tendencies. Lacking awareness of core (or intrinsic) values and origins of emotional responses, people tend to act on their immediate likes and dislikes because they lack a broader context for their behavior. This is what we generally think of as immaturity or “child-
like” ego state. The TCI self-directedness scale is a rough proxy for self-aware consciousness and there are moderate correlations with the Toronto Alexithymic Scale and the Disinhibition scale of the Three Factor Eating Questionnaire (Bishop, 2006). Low scores on self-directedness are associated with high alexithymia and high disinhibition which would make sense with low self-awareness. High alexithymia indicates a lack of awareness of the emotional drives behind behavior. High disinhibition reflects the inability to suppress eating behavior in the presence of food stimuli (responding to immediate likes). It is not unusual to hear of people eating without awareness of why they are eating. In the unaware state of consciousness, people respond to their direct physical senses without consciousness of their intuitive senses.

**Average Adult Cognition**

Most eating disordered individuals, who reach adulthood, achieve the first stage of self-aware consciousness at least some of the time. They are able to delay gratification to some degree in order to attain personal goals whether these reflect core values or not. Cognition at this stage remains egocentric and defensive. Judgment predominates over understanding. People at this level of awareness, as well as the previous one, may spend much of their time and energy avoiding negative emotional states and their accompanying thoughts, memories, and body sensations or, in a similar fashion, pursuing the positive emotions of peak experiences. Lacking awareness of what Cloninger calls “the integral nature of reality which implies the interdependent order of all events in our live and the lives of others”(2004), we may react to negative events as if the whole universe has been disarranged. However, in this stage of self-awareness, it is possible for the processing of the physical senses to be informed by some of the intuitive senses but these are to a large extent dormant. There is a lack of awareness of unconscious information which leads primarily to identification with a conceptualized self derived from external programming (“False self of Winnecot”, Winnecott, 1958). This typical adult cognition is associated with frequent emotional distress when attachments and desires are frustrated. Nevertheless, at this cognitive stage, “a person is able to make a choice to relax and let go of their negative emotions thereby setting the stage for acceptance of reality and moving to higher stages of coherent understanding (Cloninger, 2006).” EEG correlates of relaxation of thought at this level of self-aware consciousness relate to activation of the alpha generator in the thalamic activating system. Acceptance and release of struggles begins to
pave the way for the development of meta-cognition. Acceptance will be discussed further under treatment strategies.

Meta-cognition

At this level of self-aware consciousness, people are able to look at their thoughts, feelings, memories, and bodily sensations, rather than from them. There is a letting go of self-centered thinking. Individuals are able to observe their thoughts and understand their subconscious motivations—sexual, material, emotional, intellectual, and spiritual. EEG correlates at this level relate to activation of the limbic cortical activating system. There is the capacity to have patient understanding of one’s own mind and that of others so that conflicts and relationships can be supervised. This permits the appreciation of both sides of a conflict rather than externalizing the responsibility for the conflict to others. With meta-cognition, a person wants to be her true self but struggles with the conceptualized self based on social ideals. In this stage of awareness, mind-body dualism still persists in that the mind is perceived as having a regulatory function over the body. In eating disorders, this dualistic struggle obscures the information and order inherent in the body/brain system and hides perception of the intuitive truth that “every bit of reality is part of an indivisible whole.” Nevertheless, an advantage over the previous stage of cognition is that the usefulness of emotional responses in terms of serving core values can be determined rather than automatically acting without awareness from feelings. There is still judgment or conditional thinking but mindfulness, or “non-discursive meditation” starts here. The intention in mindfulness is to understand the nature of thought, not to stop thinking. One grows in awareness of who she is. When people are unable to attain this level of thought as in immature or starved brains, externalization strategies such as “Life without ED” (Schaefer, 2004) or “Don’t listen to Neg” (Cullis, 2003) are helpful.

Contemplation

The third stage of self-awareness is characterized by direct perception of the preverbal outlook or schemas that guide a person’s attention and underlie the appraisal processes that motivate behavior—that is, “initial perspective.” This level of cognition is distinguished from the previous one by “effortless spontaneity of contemplation.” With direct awareness of one’s outlook, consciousness can be enlarged by gaining access to unconscious thoughts and feelings. “Soulfulness” (Cloninger, 2006) is achieved by letting go of
wishful thinking and by impartially questioning the basic assumptions and core beliefs about life. We can act spontaneously without a sense of suppressed conflict. In contemplation, the boundaries between self and non-self are relaxed so there is one unitive experience unbounded in time and space. Resolution of conflicts cannot be complete until the third stage of self-awareness is achieved. EEG correlates of thought at this level of self-aware consciousness reflect activation of the brain-stem cortical activating system.

What are the characteristics of contemplative thought? Cloninger has given a detailed account of contemplative thought in his book *Feeling Good*. I will give a brief qualitative description here to help you have an appreciation of the ultimate goal of therapy. Cloninger has summarized the characteristics of contemplative thought in Table 8.

[Table 8 about here]

Note that Cloninger describes conscious thought in terms of 5 subconscious streams which correspond to the evolutionary cognitive development of vertebrates (see figure 1). These subconscious streams are: 1) sexual/action-based, 2) material/intentional, 3) emotional/automated, 4) intellectual/rational, and 5) spiritual/intuitive. Each of the five planes of thought, corresponding to stages of brain development, is concerned with modulation of a different emotional conflict. The sexual, material, emotional, and intellectual planes of thought modulate, respectively, the four temperaments of harm avoidance, novelty seeking, reward dependence, and persistence. This is illustrated in Table 9 where the temperament dimensions are shown on each plane of thought and the subscales of each temperament dimension are represented at each subplane of thought. At the spiritual plane where contemplative thought occurs, conflicts are largely resolved through unitive thinking. Table 2 shows the relationship between the character scales and the planes of thought.

[Figure 1 about here]

Contemplation occurs primarily at the spiritual plane of thought. The sexual subplane of this level of consciousness is characterized by the spiritual gifts of awe, hope, and humility which are experienced through the intuitive sense of being. Individual sexual and reproductive needs are sublimated to this level. Thinking is nondualistic so that “all is information.” In the material
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subplane, the spiritual gifts are reverence, kindness, charity which are experienced through the intuitive sense of freedom. Intentions are sublimated to those spiritual gifts rather than being dominated by selfish desires and pleasure-seeking. The quantum principle here is noncausality which gives rise to gifts and spontaneity. In the emotional subplane of spiritual thought, the gifts are calm alertness and mercy. All emotional conflicts from the emotional plane of thought are sublimated here to serene compassion through the intuitive sense of love and the quantum principle of complementarity. “We are acting only as inseparable agents on behalf of the harmony of all.” At the level of the intellectual subplane of spirituality, we have the spiritual gift of patience. Conflicts over rule governance are sublimated here through the intuitive sense of truth and the quantum principle of nonlocality or inseparability. Finally, the spiritual plane of thought reflected on itself achieves coherence. The spiritual gift at this level is wisdom. Coherence is obtained through the intuitive sense of goodness and the quantum principle of fluidity (all is energy).

[Table 9 about here]

INITIAL OUTLOOK

Cloninger has described initial outlooks corresponding to planes of thought and the intuitive senses. These initial perspectives organize to what we pay attention and how we interpret what is happening in our lives. The extent of our union in nature, that is, which senses are awake or asleep governs our outlook. “The limit of what we recognize as reality is fixed by the extent to which we have insight into what our senses can tell us.(Cloninger, 2006b)” In order to understand what gives our lives meaning, we must understand how outlook informs our thoughts. Different outlooks are distinguished in terms of assumptions about being, knowledge, and conduct. The hierarchy of the spiritual senses leads to five different worldviews. We will examine them with reference to eating disorders.

Outlook of the Sexual Plane (being and permanence): Pleasure and Pain

In my experience, the majority of sufferers of eating disorders have thought dominated by the sexual plane. The perspective of the sexual plane of thought is that of people as physical objects ruled mainly by pleasure and pain. The assumption about being on this plane is that of separateness. Recall that many individuals with eating disorders score low on self-
transcendence which is indicative of separation from others. There is
“fragmentary matter and emptiness with no intrinsic order.” This is seen
readily in eating disorder patients who have the attitude that they can fix
themselves without help from others. They are guided by the illusion that
they can instruct their bodies to conform to external concepts such as
socially constructed ideas about beauty, and develop habits or rituals which
allow them to establish order and escape the fear that emanates from their
sense of separateness. The eating disorder restricts their life to focusing
mainly on avoidance of pain and pursuit of immediate pleasures without the
lasting satisfaction that comes from following valued life directions.

The assumption of the sexual plane about knowledge is skepticism.
“Knowledge is never certain and the mind is a product of habit and
tradition.” With eating disorders, intuition is abandoned and life is regulated
by self-prescribed rules and rituals—one never being sure of what one
knows. The body is not seen as a source of knowledge but an object to be
ruled or reigned in.

Regarding conduct, this worldview assumes that people seek immediate
pleasure (reward) and avoid pain (relief). Human free will is not recognized.
Life can only be honorable and responsible if the pleasure principle is
restrained by force and conditioning. Recognize your anorectic patients
here? With eating disordered individuals, high harm avoidance generally
slants behavior more toward the avoidance of pain and the eating disorder
supports the avoidance of negative private experiences such as shame and
body image discontent. Eating disorder patients, especially those with
anorexia nervosa, generally believe that people can be trained to have good
habits and consistent discipline by repetitive and persistent behavior.
Bulimic patients generally struggle with domination of their impulses driven
by high novelty seeking.

Outlook of the Material Plane: Freedom and Power

For many people with eating disorders, thought is dominated by the outlook
of the sexual plane, but a significant portion of sufferers show the outlook of
the material plan. As with the sexual plane, the assumptions about being in
this perspective are materialistic, that is, mental or spiritual aspects of life
are ignored. However, self-directedness can emerge as a property of the
organization of our drives for reward or relief by the brain. Drives and
emotions are managed by forceful exertion such as seen with the eating disordered behavior.

The assumption about knowledge on this plane is pragmatism. Truth and values are relative and dependent upon personal judgments. Here, again, the intuitive senses are largely ignored. Core values, as a manifestation of our intuitive senses, are also not understood at this level of thought. For this reason, self-directedness is thwarted by excessive focus on feeling states and their management. The eating disorder is a concrete, material way to manage pain and pleasure, reward and relief.

Conduct from this outlook centers around delay of gratification. Anorectics do this easily while bulimics struggle. Both hope that their discipline will pay off in the long run with happiness and self-esteem. The promise of the eating disorder is never achieved because happiness can only come from pursuing one’s valued directions.

Outlook of the Emotional Plane: Love and Beauty

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Since psychology has not recognized the three stages of self-aware consciousness, most therapies operate at the first or second stages of self-awareness. The newer mindfulness and acceptance therapies seek to elevate thought to the second stage in contrast to behaviorism which typically operates below that level. However, they cannot obtain consistent well-being without achieving coherence which requires thought at the third stage of self-aware consciousness. Now we turn to therapeutic strategies to help patients advance along the path of the psyche.

THE STRATEGIES OF NEWER THERAPIES

Newer therapies pull their strategies from diverse sources and many have overlapping influences. Some of the essential characteristics of these therapies are listed in Table 10. These characteristics fit together and reinforce each other. We will discuss them in turn.

[Table 10 about here]

Mindfulness Skills
Newer therapies aim to elevate self-aware consciousness to the level of meta-cognition and this begins with mindfulness. Mindfulness is important because it enables the person to consciously experience and observe her internal mental and bodily events as well as surrounding external events perceived directly through the senses. Mindfulness helps achieve integration of the rational and emotional processing or “wise mind” in Linehan’s terms (Linehan, 1993). Mindfulness counters the cognitive narrowing or reduction of awareness that accompanies emotional arousal along with the emotion- or mood-dependent behavior that can be often self-defeating. The development of other self-management skill areas is enhanced through mindfulness. In DBT the core mindfulness skills are essential to the successful marriage of emotion regulation and distress tolerance skills. In ACT mindfulness especially promotes direct experiencing and the self-as-context.

There are the “what” and “how” skills of mindfulness training (Linehan, 1993). The “what” skills include learning 1) to observe, 2) to describe, and 3) to participate with awareness of one’s feelings and actions. The “how” skills deal with the way in which one practices the “what” skills of mindfulness. This involves 1) taking a non-judgmental stance, 2) focusing on one thing in the moment, and 3) putting effectiveness over other issues that may be morally justified but self-defeating. In the implementation of these skills the mind opens up to understanding one’s nature and situation. These skills can be applied to a number of experiential exercises including mindful eating.

In addition to the concepts noted above, Germer (2005) has described other features of mindful moments. He adds that mindfulness is nonconceptual awareness without absorption in our thought processes. It is intentional with regard to directing the attention somewhere. Mindful experience is preverbal because awareness precedes words. It is exploratory always investigating more subtle levels of perception. Finally, mindfulness is liberating by providing freedom from conditioned suffering. You will readily see how these concepts link to other therapeutic strategies discussed below as well as our prior discussion of self-aware consciousness.

With eating disordered patients, however, it is often difficult to practice mindfulness skills. Some individuals, especially with anorexia, are in a semi-starved state which impairs cortical function necessary for observing one’s own mind. Other people are so highly distractible that mindfulness is
precluded. Sometimes, overeaters have this problem to the extent that mindful eating is extremely difficult. Correcting the underlying conditions will make the mindfulness skills more readily practicable.

Core mindfulness skills can be used to decrease cognitive narrowing associated with eating disorder behaviors such as fasting and bingeing and to increase self-knowledge. Eating disordered patients are generally disconnected from their bodies. As Damasio (1994, 1999) has shown us, the brain-body connection is essential to self-awareness, consciousness, and reasoning, all of which are impaired at some level in eating disorders. The intrinsic awareness of the body’s contribution to our holistic function is lost in eating disorders. The body is dissociated and treated as an object to be manipulated as a symbolic representation of the self (or other in some cases). Mindfulness training focused on eating, body image and body awareness can lead the way to integration, health, and recovery.

Acceptance Strategies

Acceptance strategies are essential to the process of achieving coherence. They are a core intervention and a necessary component to successful psychotherapy. When we think of the psychotherapeutic process, it is helpful to be reminded that “change is the younger sister of acceptance.” What do we mean by acceptance?

Acceptance is inextricably tied to the concept of willingness. Some simply define acceptance as a willingness to accept internal events or the contents of our mind. Others say it is waiting patiently for understanding of our experiences. It can also be thought of as a nonjudgmental embracing of experience in the present moment (see mindfulness). Still others see it as expecting to experience both negative and positive feelings in pursuit of our valued actions. Cloninger (2004), perhaps, said it best, “Acceptance is being willing to see what we are in reality without wanting to become something else.”

What is the rationale for cultivating acceptance? First, acceptance reduces suffering. When we refuse to have what we feel, we suffer. John Kabat-Zinn (1990) noted this in his work with chronic pain patients. When we are willing to have our internal experiences, their influence on us is greatly reduced. Who needs an eating disorder if they are willing to have their anxiety about food and weight?
Second, acceptance releases us from useless control battles and struggles. Many of our patients actually believe that they can control the expression of their genes as well as their emotions. The body is a self-organizing system based on our genetic endowment and our emotions are automatic functions of brain appraisal processes. We don’t control them. Acceptance dissolves this disunity with our bodies.

Third, acceptance reduces the resistance to current reality or the natural order of things. As we develop a conceptual self, we often become separated from our true nature. Resistance and control battles are a natural consequence of this. Eating disorders illustrate this well as sufferers impose concepts on their mind and body that do not match their nature.

Finally, acceptance is an alternative to experiential avoidance seen with eating disordered persons. As many sufferers report, an eating disorder is a full time job. The mind is constantly occupied with issues surrounding food and weight. For most eating disordered persons, their creative energy is tied up in escaping this torture. Their lives become about managing anxiety and other emotions rather than pursuing their valued life goals. Acceptance allows them to step out of the struggle.

Transcendent Sense of Self

The self is often defined as what is enveloped by the skin or is considered roughly what is subsumed under the term ego-identity (Lazarus, 1993). A simpler way of describing the self is how we conceptualize ourselves by our prior conditioning and autobiographical memory. This conceptualized self can be contrasted to the self-as-process and the self-as-context (Hayes, Strosahl, Wilson, 1999). Most adults relate more to the conceptualized self—especially those with eating disorders. It is the conceptualized self that torments us with idealized images of whom we should be. The conceptualized self, when it is so discrepant from our true nature, is essentially a “false self.”

As therapy seeks to elevate thought to the second stage of self-aware consciousness, identification with the self-as-context is promoted. Essentially, one identifies with one’s self-awareness as the observer of one’s mental contents not the mental contents themselves. In ACT this is called defusion from thoughts. It is the understanding that thoughts are not
external reality but mental representations which may or may not have some quasi-survival purpose. As such, thoughts are not our identity but content of the mind that may or may not be useful in terms of serving our valued life goals and purposes. The term psychic equivalence is used by some authorities to indicate confusion of thoughts with reality. Identifying with the self-as-context might be considered the first level of the transcendent self.

When thought attains the third stage of self-aware consciousness, transpersonal identity occurs. There is nonlocal awareness such that there is identification with all that is. One understands that the self is an inseparable part of a greater whole. This is the second level of self-transcendence.

Targeting Experiential or Emotional Avoidance

In the first stage of self-aware consciousness or below, where most people with eating disorders are, there is marked incoherence which leads to increasing distress. Life becomes increasingly about managing emotions, that is, escaping from negative feelings and pursuing the promise of positive ones. There is increasingly wishful thinking of becoming someone they can never be without paying a tremendous price, sometimes even death as in the case of fashion models or horse jockeys. An increasing spiral of ego-centrism ensues (see figure 2). Increased emotional arousal results in cognitive narrowing so that thoughts about shape, weight, and food dominate consciousness. There are constant conflicts over wants and desires reflective of their incoherence. They struggle with these conflicts by trying to control the uncontrollable—their own emotions and thoughts which arise spontaneously in their minds. Their understanding of themselves and their relationships remains shallow and superficial. Self-directedness becomes increasingly impaired as avoidance of internal experience progressively displaces cognizance of the core values which orient and direct behavior.

Reducing experiential avoidance and thus, acceptance of private experiences, starts with accepting that one can not escape one’s own internal experience including thoughts, feelings, memories and bodily sensations. These are automatic products of the brain’s appraisal processes. To escape the downward spiral of thought, we must be willing to have our internal experiences whatever they may be. We must accept our thoughts and feelings. When we are willing to have our internal experiences, we can elevate our self-awareness and understand our subconscious appraisals and
motivations. When we understand our emotional processes, we can discern whether they serve our valued life directions or not. Thoughts, feelings, memories and bodily sensations which do not serve our values are not useful to us and they will weaken if we are willing to have them and do not act from them. As we elevate our thought to the second stage of self-aware consciousness, we learn to observe our internal experience without wanting it to be different or to escape from it.

Awareness of Rule Governance

Eating disordered patients tend to overvalue rule governance at the expense of intuitive processes. Rules are laid down in semantic memory. Rules oversimplify life and reduce response flexibility. Eating disordered individuals often develop elaborate rules about what and how they eat and exercise. When rigid rules are imposed on the body, the body must compensate in ways that are sometime detrimental to one’s health. Excessive rule governance is a cause of mind/body conflict and incoherence.

Eating disordered persons rely on rule governance for a sense of safety and security. Rules reinforce the need for control and help maintain the illusion that anxiety can be controlled forcefully. Consequently, rules serve the emotion avoidance agenda which is ultimately “mission impossible.” With the acceptance of thoughts and feelings, however, rule governance becomes less important. As rule governance diminishes, intuitive processes and direct experiencing can take on more importance.

Direct Experiencing

Studies have shown that there are fears of fat and weight concerns as early as eight years old (Shapiro, Newcomb, Loeb, 1997; Packard, Krogstrand, 2002). This is largely not from direct experiences of size but from indirect learning of attitudes prevalent in the culture. Girls learn that size is bad and constantly struggle with internal thoughts related to this concept. In many cases, the body takes the blame for problems of interpersonal relationships that stem from defensiveness in areas of relational life. The body becomes the sphere of control for the person who is trying to escape her feelings. This spiral results in less and less connection to direct experience as the person is more and more absorbed in her programming (prior conditioning) and conceptualized self.
Direct experiencing calls for letting go of control, rule governance, and slavery to one’s autobiographical memory. In fact, all of the preceding characteristics of newer therapies enhance direct experiencing—mindfulness skills, acceptance strategies, self-as-context, eliminating experiential avoidance, and balancing rule governance with intuitive processes. The suspension of critical thoughts and the urge to alter what enters awareness is particularly helpful. Accepting whatever arises in one’s awareness facilitates trust in the ability to see reality as it is not as the mind may announce it to be. With direct experiencing we wait patiently for understanding, allowing things to flow at their own speed. Direct experiencing facilitates the elevation of thought to the second stage of self-aware consciousness. Direct experiencing is a component of Cloninger’s *Silence of the Mind* and the *Union in Nature* meditations.

Values Identification

Another area that newer therapies address is valued life directions. This is an important element of motivational interviewing as well as self-directedness. Self-directedness is difficult, if not possible, without awareness of core values. Values provide the context for our actions and feelings and negative experiences are not well tolerated without a values context. A person is more willing to have negative feelings if they stand in the way of pursuing a valued direction. For example, I am willing to tolerate my fatigue and my anxiety about exposure to falls if getting to the top of the mountain is highly valued. If not, I am ready to turn back. Valued directions are like the orientation of a compass. They help us keep our bearing in life regardless of our external circumstances.

Without awareness of valued directions people are often swayed by their emotional responses which may or may not serve their long range goals and purposes. Under the sway of emotions, behavior may likewise become impulsive, “automatic,” and mindless with absence of self-reflection. Siegel (1999) has called this the lower mode of processing which he contrasts to a higher mode of prefrontal cortical processing involving rational, reflective thought; mindfulness; response flexibility; and an integrated sense of self-awareness. Individuals with strong emotional vulnerability readily disconnect from the higher mode of emotion processing and often are driven by their emotions to engage in mindless, rigid, stereotyped responses such those seen with eating disorders. Recognizing mood-dependent behavior is a major focus of newer therapies because moods often elicit maladaptive
coping behaviors and narrow awareness of one’s coping options. Mood-dependent behavior is often disowned or blamed on others. Valued directions, on the other hand, keep us anchored in emotional storms.

Where do our valued directions come from? Values are not simply choices we make about life, but I think that they come from a deeper source. Values are recollections which emanate from the basic structure of our thought and our intuitive senses as Cloninger has described and is elaborated above. Values can be derived from the inexorable drive toward order, truth, and coherence, i.e., following the path of the psyche. As we grow in self-aware consciousness, our values become clearer to us. The value domains outlined by the ACT therapists (Hayes, Strosahl, 2004; Wilson, Murrell, 2004) can be related to the subplanes of thought that we have previously discussed (Table 11).

[Table 11 about here]

Values do not come from out of the blue. They come from our recollection of the basic order and information that is inherent in all things. When we discover new things about ourselves and the outer world, we are only becoming aware of information that was already present within us and around us. Our values reflect the basic nature of things that are part of and inseparable from the universal unity of being. Valuing transcends rational or logical processes (Hayes, Strosahl, Wilson, 1999) and emanates from intuitive thinking that taps our core being. Core values do not arise from our prior conditioning although they may be reinforced by it. Core values are noncausal and nonlocal in the sense of quantum phenomena. The individual goals and actions taken in service of those values may be unique to cultural and individual conditioning factors. Values arise from the three inseparable goals of life—greater well-being, self-understanding, and coherence. Concerning this triad of basic needs, individuals pose fundamental questions which underlie their core values. Regarding well-being, “How can I be happy?” or “What is good?” or “How can I find God?” are typical questions. Concerning understanding, “Who am I am?” or “What is life?” or “What is truth?” is asked. With regard to coherence, people may query “How can I have a more healthy balance to my life?” or “What do I really love?” or “What is beauty?” (Cloninger, 2004).

It is important to differentiate intrinsic or core values from instrumental values. Eating disordered persons often state that they value thinness.
However, thinness is like money. It is most of the time an instrumental value. That is, it has little or no intrinsic value when taken in isolation. For example, suppose you say that you value money. I then say that I will give you 100 billion dollars to have on two conditions. One, you cannot spend it and, two, you cannot tell anyone that you have it. Otherwise, you are free to count your money if the privacy of your own home. What is the value of that 100 billion dollars now? Get the picture? In isolation, money has no intrinsic value but only serves as a means to something else. In a similar fashion, thinness only serves as a means to something else. Joy and satisfaction do not come from instrumental values. Since your brain already knows your intrinsic values, both preverbally and unconsciously, it signals how coherent your behavior is with your natural values through feeling states such as joy and satisfaction.

[Side Bar 2 about here]

Coherence Seeking

Cloninger has asserted that all human beings have a need to increase the coherence of the personality. Coherence comes from increasing awareness of our basic nature and our relationships with others so that there is unity of function of all aspects of a human being. When coherence is achieved, we act spontaneously without feeling a sense of suppressed conflict. We do not impose rules or concepts on ourselves which are inconsistent with our basic nature.

What are the conditions for development of coherence? First, we must release or let go of all struggles which result from our resistance to the order and information inherent in all things. Struggling only narrows our self-awareness as our brain suppresses prefrontal lobe activity in service of emotional responding. We see only our programming from prior conditioning. The ability to see infinite possibilities for ourselves is inhibited. We are unable to see the way things are in reality. Imposing external concepts on ourselves will only make it difficult to observe the information that is already available in our psyche.

Second, we must learn to listen to our psyche to try to understand our own nature rather than to judge, criticize, or blame. Judging, criticizing, and blaming are major impediments to self-understanding because they close the exploration process. They transfer responsibility to something else so that
we arrive at premature conclusions. A nonjudgmental stance with a calm mind allows us to face the truth inherent in reality rather than wanting things to be other than they are. This is growing in self-awareness.

Third, we move toward coherence by becoming aware of and freeing ourselves from our prior conditioning, including our conceptualized self, and work unconditionally in the service of others. Through unconditional service we grow in love, charity, and compassion. In Cloninger’s words, “Love is the absence of fear, egoism, and elitism.” As we move toward coherence, we no longer strive to control or inhibit conflicts or struggle toward an idealized paragon of perfection. This is growing in love and freedom.

Connection

Eating disordered persons suffer from the great disconnect. They are disconnected at many levels both internally and externally. Internal disconnection is evident with poor interoceptive awareness or alexithymia. External disconnection is seen with poor attachment and a lack of transpersonal identification. Eating disorder sufferers are do-it-yourselfers who over rely on autoregulatory strategies, such as the eating disorder itself, to manage their emotions rather than to avail themselves of interactive repair with others. They have a “local” view of themselves and do not feel universal relatedness. Each psyche, in Cloninger’s analogy, is like a node of interconnectivity on the internet—some are more connected than others. We are not isolated fragments in the universe.

Connection is a by-product of growing in coherence, i.e., the three unities of self, community, universe (the character dimensions of the TCI). As we remove the barriers to growing in self-awareness by addressing the elements above, we also eliminate obstacles to connection to the world around us. As we contact the intuitive senses, we realize the nodal point of our psyche in that world. As we recognize and let go of prior conditioning which does not serve our intrinsic values, we are free to connect and work in service of others. Treatment programs have tried to facilitate this by having patients contact and care for animals and do volunteer work to help their fellow human beings.

Connection is an important aspect of the therapeutic alliance between patient and therapist. Many eating disorder patients have low self-transcendence
and have a feeling of personal isolation. Others have low reward
dependence and have difficulty sharing their private experiences. It is
important to help the person who is isolated physically and spiritually
understand their situation and how it impedes the natural human tendency to
interactive repair. The therapist and the patient enhance each others
awareness by sharing minds.

Inner and outer connection is facilitated by contemplation. Through
contemplation we recollect our true nature and our spiritual gifts (Table 8).
We expand the interconnectivity of our psyche like a highly connected web
site on the internet.

OVERVIEW OF TREATMENT GOALS

Having reviewed some of the essential elements of newer therapies, let’s
look at how they fit with the treatment goals for patients with eating
disorders. Figure 2 depicts the effects of temperament and starvation on the
level of self-aware consciousness in eating disordered patients. The figure
illustrates that there is an inverse relationship between the level of self-
awareness and the extent of starvation; worry, anxiety, harm avoidance; and
novelty seeking. In other words, the more intense these traits are, the less
the width, depth and elevation of thought. At the low point frequently
encountered in eating disordered patients, thought has little self-
understanding, flexibility, or awareness of agency or self as the doer. This is
consistent with neurophysiologic findings that the cortex is inhibited by
emotional arousal states (ref) and, also, with functional brain imaging that
shows diminution of cortical activity in starvation states (ref).

[Figure 2 about here]

Obviously, our overarching goals will be to feed the starving cortex of the
brain and calm an aroused mind in order to create the conditions for
elevation of thought and creative solutions to life problems. A box on each
of the axes of figure 2 gives some of the problems that need to be addressed
on each dimension of thought in the treatment of eating disordered
individuals.

On the dimension of depth of thought and understanding, eating disordered
persons typically show superficial, externally-oriented thinking. This is
evidenced by dwelling on superficial issues and worries about what others
think of them based on outward appearances. Conflicts over control of internal experience and relationships ensue because of a lack of awareness of the intuitive sense of freedom and purposefulness. They feel that they have to control their thoughts and feelings particularly about weight, shape, and eating. With lack of understanding, a person tries to use force to manage conflicts like trying to force the square peg through the round hole. Without understanding the nature of things, the eating disorder sufferer tries to force her body to conform to a socially learned concept in order to control her emotional life.

From the standpoint of width of thought and flexibility, eating disordered persons have an intense self-focus with a narrowed scope of awareness and range of behavior. Patients frequently report that their free time is filled with self-referential ruminations about food, shape, and weight so that there is little diversity of thought. Their behavior becomes rigid and stereotyped without creative deviations. For this reason, they are conflicted over wants and desires. There is no room for deviation from the rigid patterns of thought and behavior. They are governed by semantic rules which evoke negative emotional responses to their natural drives and needs. Relationships also suffer from the intense self-focus. The narrowed awareness results in a disconnect from self and others.

Finally, on the dimension of elevation of thought and sense of agency or awareness, eating disordered individuals show a lowered self-directedness. They are driven by their immediate cravings and aversions due to a mindless lack of awareness of a values context to frame the meaning of their behaviors. The lack of a values context contributes to conflicts over pleasure which also leads to emotional escapism. An inability to accept the way things are and assume responsibility for personal agency leads to wishful unrealistic thinking such as wanting to be a size 0 when you are a size 8. Indeed, an eating disorder is a narrow space from which to think.

Reversing the downward spiral of thought is the major aim of therapy. As we examine the phenomena of low self-aware consciousness outlined above, we can begin to see the solutions which facilitate the upward spiral of thought shown in figure 3. Each dimension of thought can be expanded by the characteristics identified in the boxes representing understanding, flexibility, and agency or awareness. These characteristics can be achieved by using the strategies of the newer therapies we have described above.
We expand the dimension of understanding the nature of things by a patient, nonjudgmental attitude. Such an attitude is fostered by mindfulness skills, acceptance strategies, and direct experiencing. As we elevate and expand our thought, we release the struggles that emotionally arouse us and inhibit our creativity. We begin to see new possibilities for ourselves. Our understanding becomes multidimensional as we enter the second stage of self-aware consciousness. We listen faithfully to our psyche as we become aware of our subconscious motives and move on to understand our initial perspective underlying our values.

We expand the dimension of flexibility by increasing our focus on others as we strive to understand their minds. We open ourselves to free will by recognizing the limitations of our rule governance. We develop charitable principles as we connect to others and our surroundings through compassionate service. By letting go of experiential avoidance, we increase our response flexibility as we move beyond the automatic and stereotypic behaviors (such as eating disorders) elicited by our emotional action tendencies.

The dimension of awareness and agency is expanded by an attitude of purposeful, hopeful, and inner directed order. This is facilitated by clear identification of values and understanding how they provide a context for determining the usefulness of our thoughts, feelings, memories, and bodily sensations. As thought elevates in self-aware consciousness, it becomes possible to develop a self-transcendent sense of self in which our own thoughts become the objects of our awareness. Instead of acting directly from our feelings, we interpose an awareness which reflects back to the context of our core values. This constitutes, in essence, what is self-directed behavior.

Coherence, and the well-being that accompanies it, can only be achieved through contemplation which moves beyond mindfulness. In the ordinary treatment of eating disorders, it is not necessary to achieve the third stage of self-aware consciousness to eliminate pathologic behaviors. Eating disorders are no longer needed when behavior serves our valued directions rather than experiential avoidance. Nevertheless, I would encourage everyone to find the well-being that coherence brings. Coherence will not be obtained by intense striving, though. It is through contemplation, in the
sense of Cloninger, that we progressively calm the mind and see things as they really are—free of the conceptualizations of our prior conditioning. When we reach this stage, there are no worries about body image or how much we should eat. That would not be coherent with what there is and there would be no unity of being.
Side Bar 1: Emotion- or Mood- Dependent Behavior

Emotions are associated with automated behavior. This has been called mood-dependent (Linehan, 1993) and “taking the low road” (Siegel, Hartzell, 2003). The latter refers to the tendency of emotions to inhibit higher cortical processes mediated by the brain’s prefrontal lobes and to the elicitation of automatic stereotypic behaviors such as those seen with eating disorders.

Emotion-dependent behavior is generally not creative and serves only to reduce the emotional response in the individual who has it. With the prefrontal cortex of the brain out of play, so to speak, a person’s long range values and goals, as well as their relational concerns, are subordinate to escape from the emotional arousal. This results in a person often doing or saying something they “didn’t mean” and is a major factor in low self-directedness as we shall see.
Descriptors of individuals who score high and low on the four temperament dimensions

<table>
<thead>
<tr>
<th>Temperament Dimension</th>
<th>Extreme Variants High</th>
<th>Extreme Variants Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harm Avoidance</td>
<td>Pessimistic, Fearful, Shy, Fatigable</td>
<td>Optimistic, Daring, Outgoing, Vigorous</td>
</tr>
<tr>
<td>Novelty Seeking</td>
<td>Exploratory, Impulsive, Extravagant, Irritable</td>
<td>Reserved, Rigid, Frugal, Stoical</td>
</tr>
<tr>
<td>Reward Dependence</td>
<td>Sentimental, Open, Warm, Sympathetic</td>
<td>Critical, Aloof, Detached, Independent</td>
</tr>
<tr>
<td>Persistence</td>
<td>Industrious, Determined, Ambitious, Perfectionist</td>
<td>Apathetic, Spoiled, Underachiever, Pragmatist</td>
</tr>
</tbody>
</table>

Cloninger, 2006

Table 1
Descriptors of individuals who score high and low on the three character dimensions

<table>
<thead>
<tr>
<th>Character Dimension</th>
<th>Extreme Variants High</th>
<th>Extreme Variants Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Directedness</td>
<td>Responsible</td>
<td>Blaming</td>
</tr>
<tr>
<td></td>
<td>Purposeful</td>
<td>Aimless</td>
</tr>
<tr>
<td></td>
<td>Resourceful</td>
<td>Inept</td>
</tr>
<tr>
<td></td>
<td>Self-accepting</td>
<td>Greedy</td>
</tr>
<tr>
<td></td>
<td>Generative</td>
<td>Unproductive</td>
</tr>
<tr>
<td>Cooperative</td>
<td>Reasonable</td>
<td>Prejudiced</td>
</tr>
<tr>
<td></td>
<td>Empathic</td>
<td>Insensitive</td>
</tr>
<tr>
<td></td>
<td>Helpful</td>
<td>Hostile</td>
</tr>
<tr>
<td></td>
<td>Compassionate</td>
<td>Revengeful</td>
</tr>
<tr>
<td></td>
<td>Principled</td>
<td>Unprincipled</td>
</tr>
<tr>
<td>Self-Transcendent</td>
<td>Judicious</td>
<td>Undiscerning</td>
</tr>
<tr>
<td></td>
<td>Insightful</td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td>Intuitive</td>
<td>Dualistic</td>
</tr>
<tr>
<td></td>
<td>Genuine</td>
<td>Pretentious</td>
</tr>
<tr>
<td></td>
<td>Spiritual</td>
<td>Materialistic</td>
</tr>
</tbody>
</table>

Cloninger, 2006a

Table 2
### Correlation Matrix for TAS, TCI, and TFEQ in Gastric Bypass Surgery Candidates

<table>
<thead>
<tr>
<th></th>
<th>TAS</th>
<th>NS</th>
<th>HA</th>
<th>RD</th>
<th>P</th>
<th>SD</th>
<th>CO</th>
<th>ST</th>
<th>R</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS</td>
<td>0.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HA</td>
<td>0.38</td>
<td>-0.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RD</td>
<td>-0.40</td>
<td>0.07</td>
<td>-0.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>-0.25</td>
<td>-0.42</td>
<td>-0.24</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>-0.52</td>
<td>-0.17</td>
<td>-0.65</td>
<td>0.18</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>-0.26</td>
<td>-0.05</td>
<td>-0.27</td>
<td>0.46</td>
<td>0.17</td>
<td>0.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST</td>
<td>-0.23</td>
<td>0.17</td>
<td>0.04</td>
<td>0.35</td>
<td>0.10</td>
<td>-0.07</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>-0.05</td>
<td>-0.08</td>
<td>-0.05</td>
<td>0.10</td>
<td>0.08</td>
<td>0.15</td>
<td>0.17</td>
<td>0.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>0.38</td>
<td>0.23</td>
<td>0.33</td>
<td>-0.04</td>
<td>-0.15</td>
<td>-0.42</td>
<td>-0.22</td>
<td>-0.07</td>
<td>-0.06</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>0.12</td>
<td>0.20</td>
<td>0.13</td>
<td>0.02</td>
<td>-0.10</td>
<td>-0.33</td>
<td>-0.19</td>
<td>0.05</td>
<td>-0.12</td>
<td>0.36</td>
</tr>
</tbody>
</table>

TAS=Toronto Alexithymic Scale, TCI=Temperament Character Inventory, TFEQ=Three Factor Eating Questionnaire, NS=Novelty Seeking, HA=Harm Avoidance, RD=Reward Dependence, P=Persistence, SD=Self-Directedness, CO=Cooperativeness, ST=Self-Transcendence, R=Restraint, D=Disinhibition, H=Hunger; Correlations above 0.30 are indicated by **bold** figures.  

Table 3
## TCI Measures of Functional Processes

<table>
<thead>
<tr>
<th>Step in Self-aware Consciousness</th>
<th>Agency (SD)</th>
<th>Flexibility (CO)</th>
<th>Understanding (ST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Intuition</td>
<td>Responsible vs. controlled</td>
<td>Tolerant vs. prejudiced</td>
<td>Sensible vs. repressive</td>
</tr>
<tr>
<td>(2) Reasoning</td>
<td>Purposeful vs. aimless</td>
<td>Forgiving vs. revengeful</td>
<td>Idealistic vs. practical</td>
</tr>
<tr>
<td>(3) Emotion</td>
<td>Accepting vs. approval-seeking</td>
<td>Empathic vs. inconsiderate</td>
<td>Transpersonal vs. individual</td>
</tr>
<tr>
<td>(4) Intention</td>
<td>Resourceful vs. inept</td>
<td>Helpful vs. unhelpful</td>
<td>Faithful vs. skeptical</td>
</tr>
<tr>
<td>(5) Action</td>
<td>Hopeful sublimation vs. compromising deliberation</td>
<td>Charitable principles vs. self-serving opportunism</td>
<td>Spiritual awareness vs. local realism</td>
</tr>
</tbody>
</table>

SD, self-directedness; CO, cooperativeness; ST, self-transcendence
From Cloninger, 2004

Table 4
Level of Self-Awareness and Eating Disorder Symptomatology
(Adapted from Cloninger, 2004)

<table>
<thead>
<tr>
<th>Character Deficits</th>
<th>Associated Clinical Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level I (Deficient sense of being and permanence)</strong></td>
<td></td>
</tr>
<tr>
<td>1) sd1—victimized</td>
<td>Starvation, self-injury, purging behaviors</td>
</tr>
<tr>
<td>2) co1—mistrusting</td>
<td>Safe foods and routines</td>
</tr>
<tr>
<td>3) st1—repressive</td>
<td>Alexithymia, decreased interoceptive awareness</td>
</tr>
<tr>
<td><strong>Level II (Deficient sense of freedom and purposefulness)</strong></td>
<td></td>
</tr>
<tr>
<td>1) sd2—aimless</td>
<td>Emotion focused behavior</td>
</tr>
<tr>
<td>2) co4—revengeful</td>
<td>Bulimia</td>
</tr>
<tr>
<td>3) st4—no moral ideals</td>
<td>Stealing food</td>
</tr>
<tr>
<td><strong>Level III (Deficient sense of love and beauty)</strong></td>
<td></td>
</tr>
<tr>
<td>1) sd4—self-striving, selfish</td>
<td>Compares self to others</td>
</tr>
<tr>
<td>2) co2—inconsiderate</td>
<td>Self-centered, resentful, low intimacy</td>
</tr>
<tr>
<td>3) st2—individualistic</td>
<td>Insecure attachments, selfish desires</td>
</tr>
<tr>
<td><strong>Level IV (Deficient sense of truth and faith)</strong></td>
<td></td>
</tr>
<tr>
<td>1) sd3—poor problem solving skills</td>
<td>Inadequate, depressive</td>
</tr>
<tr>
<td>2) co3—unhelpful</td>
<td>Low therapeutic engagement</td>
</tr>
<tr>
<td>3) st5—skeptical</td>
<td>Pessimistic and prosaic</td>
</tr>
<tr>
<td><strong>Level V (Deficient sense of goodness and unity of being)</strong></td>
<td></td>
</tr>
<tr>
<td>1) sd5—rule governed</td>
<td>Mastery-seeking perfectionism</td>
</tr>
<tr>
<td>2) co5—self-serving</td>
<td>Lack of wisdom and well-being</td>
</tr>
<tr>
<td>3) st3—materialistic</td>
<td>Lack of coherence and virtue</td>
</tr>
</tbody>
</table>

TCI subscales which indicate character deficits for each intuitive sense are given.

Table 5.
### Three Stages of Self-Awareness

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Psychological Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Unaware</td>
<td>Immature, seeking immediate gratification (“child-like” ego-state)</td>
</tr>
<tr>
<td>1</td>
<td>Average adult cognition</td>
<td>Purposeful, but egocentric&lt;br&gt;Able to delay gratification, but has frequent negative emotions (anxiety, anger, disgust) (“adult” ego-state)</td>
</tr>
<tr>
<td>2</td>
<td>Meta-cognition</td>
<td>Mature and allocentric&lt;br&gt;Aware of own subconscious thinking&lt;br&gt;Calm and patient, so able to supervise conflicts and relationships (“parental” ego-state, “mindfulness”)</td>
</tr>
<tr>
<td>3</td>
<td>Contemplation</td>
<td>Effortless calm, impartial awareness&lt;br&gt;Wise, creative, and loving&lt;br&gt;Able to access what was previously unconscious as needed without effort or distress (“state of well-being,” “soulfulness”)</td>
</tr>
</tbody>
</table>

From Cloninger, 2006

Table 6
The Three Basic Steps in Thought

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Outlook</td>
<td>The preconscious and preverbal organization of thought that provides instructions that direct our attention and that select the information we process.</td>
</tr>
<tr>
<td>Words and beliefs</td>
<td>Initial outlook is translated into words forming interpretations, beliefs, rules, and strategies.</td>
</tr>
<tr>
<td>Emotions and actions</td>
<td>Words form ideas which lead to emotions and automatic actions.</td>
</tr>
</tbody>
</table>

From Cloninger, 2006

Table 7
### Characteristics of Contemplative Thought

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Gift</th>
<th>Mechanism</th>
<th>Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual</td>
<td>Awe, hope, humility</td>
<td>Being</td>
<td>Nonduality (all is information)</td>
</tr>
<tr>
<td>Material</td>
<td>Reverence, kindness, charity</td>
<td>Freedom (pleasant)</td>
<td>Noncausality (gifts, spontaneity)</td>
</tr>
<tr>
<td>Emotional</td>
<td>Calm alertness, mercy</td>
<td>Love (not fear) (no conflict)</td>
<td>Complementarity (serenity)</td>
</tr>
<tr>
<td>Intellectual</td>
<td>Patience (seeking holiness, choiceless awareness, impartiality)</td>
<td>Truth</td>
<td>Nonlocality (inseparability)</td>
</tr>
<tr>
<td>Spiritual</td>
<td>Wisdom (peacemaker, single-heartedness, well-being)</td>
<td>Goodness</td>
<td>Fluidity (coherence, all is energy, cosmic feelings)</td>
</tr>
</tbody>
</table>

From Cloninger, 2004

Table 8
### Modulation of Temperament by Thought

<table>
<thead>
<tr>
<th>Subplane of Thought</th>
<th>Plane 2 (Sexuality)</th>
<th>Plane 3 (Intention)</th>
<th>Plane 4 (Emotion)</th>
<th>Plane 5 (Intellect)</th>
<th>Plane 7 (Spirit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Aspects (7)</td>
<td>Shy (HA 3)</td>
<td>Exploratory (NS 1)</td>
<td>Attached (RD 3)</td>
<td>Perfectionistic</td>
<td></td>
</tr>
<tr>
<td>Intellectual Aspects (5)</td>
<td>Pessimistic (HA 1)</td>
<td>Impulsive (NS 2)</td>
<td>Sentimental (RD 1)</td>
<td>Eagerness of effort</td>
<td></td>
</tr>
<tr>
<td>Emotional Aspects (4)</td>
<td>Total Harm Avoidance</td>
<td>Total Novelty Seeking</td>
<td>Total Reward Dependence</td>
<td>Total Persistence</td>
<td></td>
</tr>
<tr>
<td>Material Aspects (3)</td>
<td>Fearful (HA 2)</td>
<td>Extravagant (NS 3)</td>
<td>Aloof</td>
<td>Underachieving</td>
<td></td>
</tr>
<tr>
<td>Sexual Aspects (2)</td>
<td>Fatigable (HA 4)</td>
<td>Disorderly (NS 4)</td>
<td>Dependent (RD 4)</td>
<td>Spoiled</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Cloninger, 2004

Table 9
LEVELS OF CONSCIOUSNESS

After Cloninger, 2004

Figure 1.
The Downward Spiral of Thought in Eating Disorders

- Superficial, externally-oriented
  - Conflicts over control
  - Uses force to manage conflicts

- Emotion dependent behavior
  - Conflicts over pleasure
  - Wishful unrealistic thinking

- Increasing self focus
  - Inflexibility
  - Conflicts over wants and desires

After Cloninger, 2004

Starvation, Worry, Anxiety, Harm Avoidance, Novelty Seeking

Understanding

Width

Flexibility

Depth

Elevation/Agency or Awareness

Figure 2.
The Upward Spiral of Thought

Elevation/Agency or Awareness

- Patient, non-judging understanding
- Release of struggles
- Listens faithfully to the psyche

Understanding

- Purposeful, hopeful
- Inner directed order and awareness
- Clear identification of values

Depth

- Increasing other focus
- Kindness and free will
- Charitable principles

After Cloninger, 2004

Figure 3.
Characteristics of Newer Generation Therapies

- Mindfulness skills
- Acceptance strategies
- Transcendent sense of self
- Targeting experiential or emotional avoidance (struggling with internal experiences)
- Awareness of rule governance
- Direct experiencing
- Valued-life direction awareness
- Coherence seeking
- Connection

Table 10
### Planes of Thought and Valued Domains

<table>
<thead>
<tr>
<th>Plane of Thought</th>
<th>Intuitive Sense</th>
<th>Valued Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexuality</td>
<td>Being and Permanence</td>
<td>Intimate Relations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Self-care</td>
</tr>
<tr>
<td>Material</td>
<td>Freedom and Purposefulness</td>
<td>Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Charity</td>
</tr>
<tr>
<td>Emotion</td>
<td>Love and Beauty</td>
<td>Relationships</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Family</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Parenting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compassion</td>
</tr>
<tr>
<td>Intellect</td>
<td>Truth and Faith</td>
<td>Work</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recreation</td>
</tr>
<tr>
<td>Spirit</td>
<td>Goodness and Unity of Being</td>
<td>Community</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spirituality</td>
</tr>
</tbody>
</table>

Table 11
Hierarchical Organization of Being

<table>
<thead>
<tr>
<th>Levels of Organization</th>
<th>Levels of Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Spirituality</td>
<td>• Nonduality</td>
</tr>
<tr>
<td>• Philosophy</td>
<td>• Spirit of Truth</td>
</tr>
<tr>
<td>• Sociology, Psychology</td>
<td>• Society</td>
</tr>
<tr>
<td>• Psychophysiology</td>
<td>• Self (mind-body complex)</td>
</tr>
<tr>
<td>• Biology, Genetics</td>
<td>• Brain-body Complex</td>
</tr>
<tr>
<td>• Chemistry, Physics</td>
<td>• Cellular Life</td>
</tr>
</tbody>
</table>

After Cloninger, 2004

Table 12
Side Bar 2: The Information Inherent in the Universe

We all live within a nested hierarchy of adaptive systems (see Table 9). These systems begin with subatomic particles and ultimately encompass the entire universe. Each lower system is a constituent of the next higher system which provides the context for it. All of this starts with information contained in every aspect of being.

Cloninger points out that there are recurrent mathematical expressions in nature such as the Golden Ratio or Mean and the Fibonacci sequence. The Fibonacci sequence is encountered often in nature, art, music and mathematics. The actual sequence in numbers is 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233... Each number in the series is produced by adding the previous two numbers together. The ratio between successive Fibonacci numbers approaches what is called the Golden Mean which is approximately 1.61803.

Fibonacci numbers show up in nature in patterns of leaves on trees, petals on flowers, the spiral pattern of seeds in a flower head, and spiral patterns of shells. The Golden Ratio appears to have aesthetic value. The perfect rectangle is one whose sides are in the proportion of 1:1.61803 such as the face of the Parthenon in Greece. The Golden Section of a line divided in segments is 1:0.61803. The French painter Seurat used this ratio often in his pointillist tableaus. In music, the Golden Ratio is found in the works of Beethoven (note the fifth symphony) and Mozart among other composers.

These mathematical relationships reflect organizing principles inherent in the nature of things. It is the genius of artists and composers who recollect these underlying structures and use them creatively to please the rest of us. The next time you see a particularly pleasing photo or painting, see if you can discern the Golden Ratio in the planes or sections of the work. The ratio is within us.
References


