

**Symbiotic Psychology: The Synergy Between
Mind, Body, Emotions, and Consciousness**

**Emotions-as-Effect and
Emotional Control Theory:
The Linguistic Semantics of
Emotional vs. Cognitive
Dysregulation**

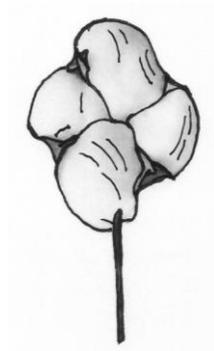
(rev2021-09-08a)

By: Andrew O. Jackson

Do not fixate on the broken and mangled hand, for it is indeed a soreness to any beholder. The message is not within the hand, nor within the moon and stars at which it points, but rather lies within another universe that surrounds us known only through its quiet revelations.

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Emotional Control Theory:
The Linguistic Semantics of
Emotional vs. Cognitive Dysregulation
(rev2021-09-08a)**

Andrew O. Jackson



**Gossypium
(cotton plant)**

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Cover Photo: "*Between the Isles*"

Andrew, with his wife Barbie and their two cats, Mindy and Jennifer, spent four summers "gunkholing" the north shore of Lake Huron, one of the Great Lakes between the United States and Canada. This is a photo of their sloop "*NorthStar*" anchored between North and South Benjamin Inlands of the North Channel.

Photo courtesy of Andrew O. Jackson.

Current cognitive-behavior therapies (CBTs) are based on the erroneous belief that emotions are causal to biochemical physiological changes within the brain and body. Because of this erroneous and false paradigm of aberrant and dangerous emotions, it is concluded that emotions must be controlled, managed, and regulated, even with the use of pharmaceuticals if necessary. It is the dysregulation of cognition, not emotion, that causes the aberrant changes in an individual's biochemical physiology that lead to suicidal depression, psychotic mania, and dysfunctional biochemical physiology susceptible to disease and illness.

Rather than demonizing emotions as aberrant, destructive, out-of-control and in need of regulation because of an emotional disorder, emotions-as-effect theory understands emotions as an evolved sensory system, akin to the sense of pain, giving conscious feedback on a biochemical physiological state. Cognition, not emotions, precipitates the biochemical physiology of the brain and body that drives behavior. Emotions, instead of being regulated by cognitive behavior, are used to guide cognitive behavior and decision making to enhance the health, well-being, and success of the individual.

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Semantics of Emotional vs. Cognitive Dysregulation*

*Not until the illusion of emotions is understood
will the power of emotions be revealed.*

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 Abstract

Abstract

Homer's *Iliad* opens with the line "Goddess, sing me the anger of Achilles, Peleus' son, that fatal anger that brought countless sorrows on the Greeks and sent many valiant souls of warriors down to Hades, leaving their bodies as spoil for dogs and carrion birds: for thus was the will of Zeus brought to fulfilment" (Homer, 800-700/2009). With these words written almost 3000 years ago, Homer linguistically sabotaged hundreds of millions of years of emotional evolution. The civilized arena was staged for aberrant emotion to drive destructive behavior.

Achilles' *anger* brought countless sorrows. Achilles' *anger* sent many valiant souls to Hades. Homer inscribes the emotion of anger as causal; that is, anger is the cause of Achilles' behavior. These statements misconstrue emotion's evolutionary role in re-processing cognitive behavior. This erroneous linguistic cognitive construct of the mind continues to this day in language, literature, philosophy, religion, law and education and has been an unquestioned foundation of modern evidence-based therapies. Today, this misconstruction of destructive behavior arising from emotional dysregulation, instead of cognitive dysregulation, erroneously prescribes emotional regulation, management, and control (even with the use of pharmaceuticals if necessary). However, it is cognition, not emotions, that precipitates the physiological states and changes within the brain and body that drives behavior. It is the dysregulation of cognition that is the foundation of mental illness, disorder, and destructive behavior and it is cognition that must be regulated, controlled, and managed.

"Emotional control" entails opposite cause-and-effect conceptualizations. Emotional control (as commonly used in literature, religion, science, law and philosophy) means to manage, restrict, and to regulate emotions because emotions *are causal* to biochemical and physiological changes

within the brain and body that drives behavior. In engineering control theory, “emotional control” means emotions are an end product of a system, *an effect* which is then used as feedback to the system.

Emotions-as-effect theory reconstructs the evolutionary bases of good- and bad-feeling emotions as the conscious perception of a biochemical physiology within the body and the brain precipitated by an evolved and nurtured cognitive neural circuitry. Emotions, feelings, and moods are perceptions of an internal state of biology *precipitated by cognition*. The causal nature of Homer’s emotions, feelings, and moods is a carefully nurtured neurolinguistic cognitive construct of the mind passed down through generations.

Contrary to the linguistics of Homer, emotions are not causal per se. And, they are neither destructive nor constructive; rather, they are indicators of the presence of very real destructive and constructive – and causal – cognitive behaviors. The correlations among (1) cognition, (2) a healthy, vital, and robust biochemical physiology of the brain and body, (3) good- and bad-feeling emotions, and (4) consciousness are a result of millions of years of evolutionary struggle to ensure the health and well-being of the individual. The question is, how will today’s ever-changing technical and political cultures and societies understand, nurture, and develop these same necessary correlations?

Emotions are the perception of biochemical and physiological states and changes of the brain and body precipitated by cognitive activities and therefore emotions can be used as feedback to guide cognitive re-processing behavior towards individual health, well-being, and success.

Psychological and pharmaceutical therapy (and primary school health and literary education) must be about the education and training of an individual to develop their skills, abilities, and beliefs needed to use their emotions as they have evolved vs. how they have been nurtured since birth.

Emotions-as-Effect and Emotional Control Theory:***The Linguistic Semantics of Emotional vs. Cognitive Dysregulation***

Have a person's core beliefs of emotions – which may have been neurolinguistically molded from childhood (Kemmerer, 2015) through family interactions and, in later years, through reading literary works such as Dickens's *Great Expectations*, Poe's *The Raven*, and Austen's *Pride and Prejudice* – impacted their current understanding of emotions and cognition (Tomasello, 2005)? A shared cultural and linguistic development (Bavin, 2012; Allen, 2019) of core beliefs and conceptual understandings about emotions is required for young students to comprehend and follow the emotional twists and turns within these popular English literary works. As students mature and are introduced to the more advanced works of William Shakespeare and others, comprehension is even more dependent upon the prior assimilation of cultural and linguistic paradigms (Evans, 2017; Kenrick, et al., 2015). Conceptions of emotions are further reinforced by the logic and reason applied in today's scientific literature, research, and discussions about emotions (Ekman & Davidson, 1994).

Emotions are felt. Emotions feel good, or not. Joy feels good. Anger does not. Love feels good. Hate does not. That is, emotions are the perception of physiological changes and states within the brain and body we feel (James, 1890; Prinz, 2004). We feel anger, we feel love, we feel joy... all which have some corresponding biochemical and physiological state of being. If, like Achilles, we are driven by our emotions, then logic would conclude that emotions precipitate the physiology that drives behavior and is then perceived as emotions. That is, emotion is causal to the physiology we perceive as emotion. But can emotions be both causal to a physiological state and being and simultaneously be the effect of that same

physiology? Is that reasonable? Is the emotional psychology of Homer, literature, and modern science erroneous? There is no emotion vs. reason debate because emotions are the perception of a biochemical physiology precipitated by the individual's cognitive activities of reason and logic as well as by other cognitive activities of awareness and knowing that include thoughts, memories, perception, conception, and imagination.

The term "emotion" is a misleading neurolinguistic cognitive construct of a civilized, literary, and religious society (Bavin, 2012; Noss & Grangaard, 2008) that has caused us to ignore the dynamic relationship between cognition and emotion within the context of emotion's evolutionary function of modulating cognitive re-processing activities (Gross, 2014). Professor Randolph M. Nesse writes in *Good Reasons for Bad Feelings: Insights from the Frontier of Evolutionary Psychiatry* (Nesse, 2019), "Why did natural selection leave us so vulnerable to so many mental disorders?" The short answer is that evolution did not; society did. Depression and other disorders of the mind must exist when emotions, moods, and feelings are disregarded as an evolved bio-feedback mechanism to reprocess, reorganize, and restructure cognitive behaviors and beliefs towards those that emotionally feel better and signify a healthier physiology (Davidson & Begley, 2012; Nesse, 2019).

When the neurolinguistic cognitive construct of emotions (Friederici, 2012; Ingram, 2007) used in religion and literature was created and included both (1) the causal cognitive activities of emotion that change the brain and body's neurology and biochemical physiology (Maletic & Raison, 2017) and (2) the perceived effect of these same biological changes (Davidson & Begley, 2012; Smith, 2015; Pessoa, 2013), humankind usurped emotions' evolutionary function. Instead of allowing emotions to perform their natural evolutionary and

Emotions-as-Effect Theory and Emotional Control Theory

symbiotic function of providing necessary regulatory feedback on cognitive activities, emotions became aberrant, destructive, and untrustworthy because they were (falsely) deemed to cause the biological changes that drive a person's thoughts and behaviors (Goleman, 2003; Gorwood, et al., 2008; Gross, 2014). As such, it is (erroneously) believed that emotions must be regulated, controlled, and managed, with pharmaceuticals if needed, which only further disinherits their evolutionary function of guiding one's cognitive behavior to improve one's person's health, well-being, and success in decision making.

Authors' (of all genres) failure to realize that the "suspension of disbelief" and avoidance of critical thinking includes the suspension of an emotional biofeedback mechanism that has evolved for millions of years to not only protect an individual but to promote their health, well-being, and success. Yet there is potentially great educational value within these emotionally charged and entertaining roller coaster rides. Through the many lives and deaths within each play, experiences, understandings, knowledge, and, potentially, wisdom of others may be gleaned for the benefit of one's own life and reality. The efficacy of these dynamics will be greatly increased *without* the awareness that emotions have evolved to guide cognitive behavior for the health, well-being, and success of the individual. Literary education must include the linguistic semantics of emotional driven behavior for its experiential value and growth potential within the vicarious living of others (be they real or fictitious) and the linguistic semantics of emotional control behavior in the engineering sense where emotions are used as feedback to guide the thoughts, memories, perceptions, imaginations, and logic of the cognitive mind for the individual's well-being.

Is it possible to think of emotions as developing separately from the evolutionary process of the human species? If emotions have been run through the evolutionary mill, i.e., are not part of the evolutionary process, what are some characteristics of the resultant design? Is it possible to use the ideas and concepts found within evolution to form logical inferences and conclusions about emotions and feelings as they pertain to biological functions? (Brune, 2016; Nesse, 2019; Shackelford & Zeigler-Hill, 2017)

The notion that species develop by naturally selecting attributes that are advantageous for survival is the cornerstone of the theory of evolution (Darwin, 1859; LeDoux, 2019). If any human is to live to maturity, or even thrive and have offspring who will continue the survival of the species, might there be an evolved link or correlation among (1) an individual's emotions, (2) their cognitive activities and (3) their body's physiology? The bottom line is that with the exception of disease, illness, and infection, the neurological and biochemical physiological signatures of "emotional disorders" (Brune, 2008; Maletic & Raison, 2017) are evolutionarily supposed to exist as such when conscious cognitive behavior ignores the governance of an essential internal bio-feedback mechanism called emotions, moods, and feelings.

Synopsis

- 1) Literature and religion, for thousands of years, have treated emotion as (1) causal to neurological and biological changes in the brain and body that drive a person's behavior and (2) the perceived effect of the same changes of the brain and body that a person feels and perceives. The mind has neurolinguistically created a cognitive construct that defines

Synopsis

emotions as both (1) causal to neurological and biological change within the brain and body and (2) the perceived effect of this same neurological and biological change. This confusion may be acceptable in literature and religion, but it is not appropriate for evolutionary biology and linguistic science, which must now reconstruct an appropriate definition.

- 2) Emotions-as-effect theory uses the principles of evolution to understand and define emotions as the good- and bad-feeling perception of neurological and biological changes within the brain and body precipitated by cognitive activities stimulating an “emotional” neurology. This neurology is not emotions but rather the neurology that activates changes in the neurological and biochemical physiology of the brain and body that are then perceived as emotions.
- 3) Evidence-based practices such as rational emotive behavior therapy (REBT) (Ellis & Ellis, 2019), cognitive behavior therapy (CBT) (Beck, 2011), method of levels therapy (MOL) (Mansell, et al, 2013), mindfulness (Farb, et al., 2014), mindfulness-based cognitive therapy for depression (Segal, et al, 2018), eye movement desensitization and reprocessing (EMDR) (Shapiro, 2018), forgiveness therapy (Enright, & Fitzgibbons, 2015), positive psychology (Lopez & Snyder, 2009), emotional intelligence (EI) (Salovey, et al., 2004), and interpersonal psychotherapy (Stulberg, et al., 2018) all center around an individual’s motivation, ability, and skill to re-process cognitive activities (Gross, 2014). These cognitive activities are ultimately evaluated by the existence of good- or bad-feeling emotions. This is the use of emotions-as-effect theory.

Synopsis

- 4) Recognizing emotions-as-effect theory within modern evidence-based practices will improve the efficacy of such practices because emotions can be re-entrusted with their evolutionary role to guide cognitive behavior.
- 5) Evolution has orchestrated, biologically speaking, a morality in which what feels good is good and what feels bad is bad (Moore, 2019). Now, humanity must nurture new algorithms that transform emotionally negative cognitive activities into emotionally positive cognitive activities that reflect a healthy biology and compassion and respect for oneself and others.

Definition Notes

- 1) “Cognition” is the processes of knowing and awareness, such as perceiving, conceiving, remembering, reasoning, judging, imagining, and problem solving (APA, 2020), where understanding and comprehension can project future consequences and events.
- 2) A person feels/senses/perceives physiological states and changes precipitated by cognitive activities as “emotions,” “moods,” and “feelings” (EMFs). All EMFs have a common characteristic of feeling good or bad, but they vary in their level of awareness of associative cognitive and physical behaviors, states, and changes.
- 3) “Emotional valance” is not used here because in the definition “the value associated with a stimulus as expressed on a continuum from pleasant to unpleasant or from attractive to aversive” (APA, 2020), the notion of “stimulus” lacks clarity and

Definition Notes

- typically refers to an exterior environmental factor/event and not to the cognitive activities within the individual's mind.
- 4) The “somatosensory system” is “the parts of the nervous system that serve perception of touch, vibration, pain and temperature” (APA, 2020); it does not incorporate the perception of emotional feelings within the brain and body.
 - 5) The relationships between emotions and emotional valance, arousal, and behavior cannot be discussed or understood until a scientific understanding of emotions as an effect of neurological and biological changes in the brain and body precipitated by causal cognitive activities is achieved.
 - 6) The idea of “neurolinguistic cognitive construct” suggests that a word and its defining cognitive construct – such as emotion, being (1) a cause of biological change and (2) an effect of the same biological change – have been so woven into the fabric of the mind that this cognitive construct is a neurological aspect of the brain (APA, 2020; Costandi, 2016).
 - 7) James Gross's process model of emotional regulation defines five steps towards emotional generation, where each step is a “potential target for regulation”: situation selection, situation modification, attentional deployment, cognitive change, and response modification (Gross, 2014). Emotions-as-effect theory uses these steps as potential targets for “re-processing” cognitive activities to generate new biological conditions and states that are then perceived as new emotions.
 - 8) “Emotional control” entails opposite cause-and-effect conceptualizations. Emotional control, as commonly used in literature, religion, science, law and philosophy, means

to manage, restrict, and to regulate emotions (Gross, 2014) because emotions *are causal* to biochemical and physiological changes within the brain and body that drives behavior. In engineering control theory (Marken 2020; Ogata, 2010; Palm, 2014), emotional control means emotions are being regulated and managed as an end product of a system. Within that system, other “manipulated variables” are changed and altered which results in a change in the controlled variable (emotions). That is, emotions are a result of, a consequence of, or *an effect* of a system which are then used as feedback to the system (Powers, 2016). (See following discussion on closed- and open-loop feedback control networks).

Cognitive vs. Emotional Control: Linguistic Semantics vs. Process Schematics

A thermostat in a room controls the room’s temperature (temperature control). Yet what is being managed are a variety of internal variables within the furnace/air conditioning units. The room temperature is the controlled variable and the heat/cool outputs are the manipulated variables (Marken 2020; Ogata, 2010; Palm, 2014). If more heat is needed in the winter, the furnace is activated and if more cooling is needed in the summer, the air conditioner is activated. A cruise control on a car controls the cars speed (speed control), but what is being managed are a variety of internal variables within the engine and transmission. The car’s speed is the controlled variable and the power output is the manipulated variable; that is, for the car to maintain a desired speed going up a hill, more power is needed and going down, less. But, within the furnace, air conditioner, and car are multiple internal functions that are being “controlled” and “manipulated. Only by understanding the process

Cognitive vs. Emotional Perceptual Control: Linguistic Semantics vs. Process Schematics

schematics within each system does the cause-and-effect terminology of temperature control and speed control lead a person to comprehend what (and how) each process within a system can be manipulated to maintain a desired outcome (goal).

Both of these control systems are a *closed-loop* control system because they depend on feedback information (room's temperature, car's speed) to manipulate the behavior of each system's internal processes to achieve a desired result (goal). The term "closed-loop control" means there is feedback loop. An *open-loop* control system (like a gas burner on a stove top) does not have a feedback loop to regulate the flow of gas to the flame, say to turn down the flame under a pan when frying eggs are starting to burn. Whereas the temperature in the oven can be set to a desired goal and the system will adjust the heat output to maintain a fixed temperature in a closed-loop control system (Marken 2020; Ogata, 2010; Palm, 2014).

This text is about individual self-empowerment where consciousness perceives, comprehends, and manipulates one's own cognitive processes towards self-determined and desirable goals and outcomes. Where one's emotional feelings may be an un-measurable quantity in research psychology, internally to the individual they are readily perceptible. In control systems engineering, the psychological terminology of "emotional control" is correct, but linguistically confusing. Emotional control is the self-perception, -measure, -evaluation and use of emotions to control, manipulate, and re-process cognitive activities within a "closed-loop" control system (reference Figure 6: Cognitive-Emotional Re-Processing Flow Chart, page 26).

Open-loop emotional control is more indicative of current literature, psychology, medicine, law, and philosophy where emotions are not used within a feedback loop to stabilize the system (reference figure 1, below). Problems within an individual’s health, well-being, and success become more viable when emotions are not used as feedback to control, manipulate, and re-process cognitive behavior. The resulting biochemical physiology of the open-loop process is more susceptible to external environmental disturbances disempowering the individual. Only by understanding the process schematics within an individual’s cognitive, biochemical and physiological states and changes, and resultant emotional behavior does the cause-and-effect terminology within cognitive-emotional

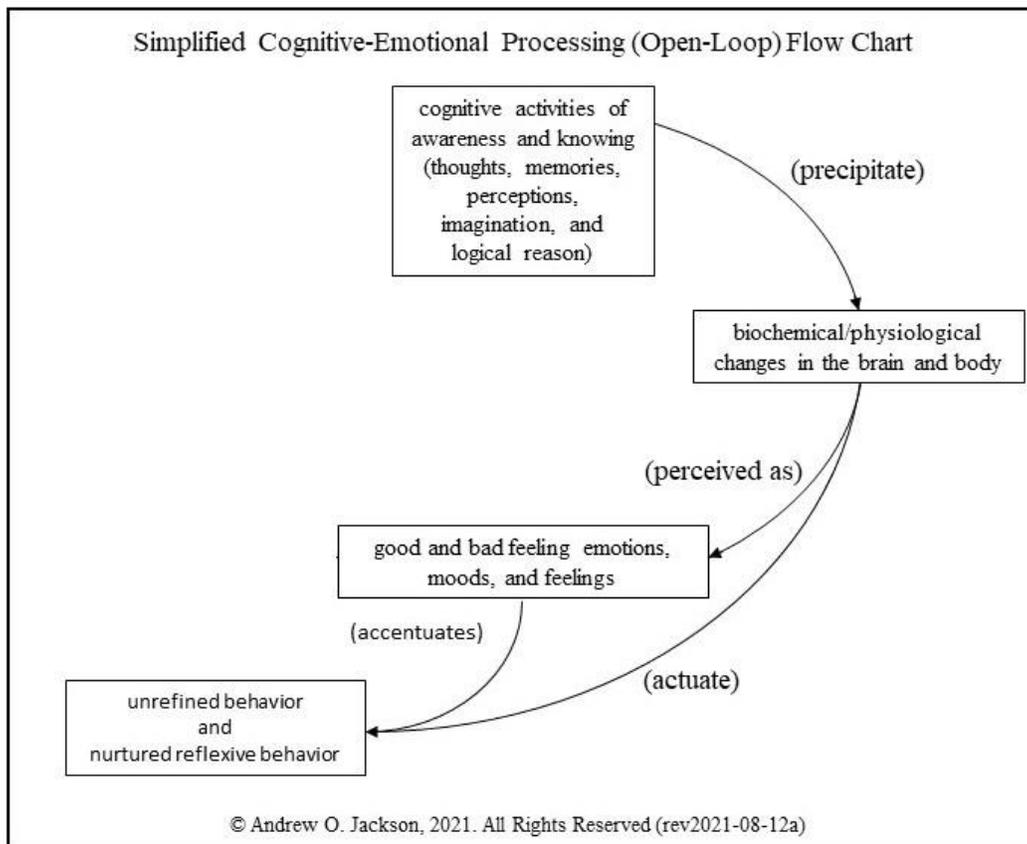


Figure 1: Simplified Cognitive-Emotional Processing (Open-Loop Control) Flow Chart

behavior control lead an individual to comprehend what cognitive activities within themselves can and should be self-manipulated and re-processed to maintain one's own desired emotional state. Every psychological therapy provides its own unique construct of cognitive behavior and their own system for cognitive manipulation, re-processing and change to reach a desired emotional goal. That is, each provides its own methodology for emotional regulation and control – as in engineering control theory – that may be used by the individual.

*Measure the effect, control the cause. Emotions are the effect,
cognitive activities are the cause.*

Historical Background Perceptions: Emotions as a Cause of Biological Change

Professor Antonio Damasio outlines the modern psychological theory of emotions at the beginning of his book *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (Damasio, 1999). Paraphrased, he describes that (1st) “emotions [are] induced in the brain,” which leads to (2nd) “consequent bodily changes” and to a (3rd) “feeling [that] could become *known* to the organism having the emotion.” He defines emotions as causes of the biological changes that a person then feels as emotions; that is, emotions are both a cause and an effect of such changes.

James Gross illustrates in his modal model of emotional generation (reference Figure 2, page 22) that emotions are a “response” to the cognitive activities of paying attention to and making an appraisal of a situation, “e.g., a snake slithering into my tent.” To paraphrase Gross, when such moments lead to emotions that are of the wrong type, intensity, or duration

 Historical Background Perceptions: Emotions as a Cause of Biological Change

arises within the all-encompassing cause/effect order within the “environment” of “thoughts, physical reactions, moods, and behaviors,” as written in *Mind over Mood* (Greenberger & Padesky, 2016) (reference Figure 3).

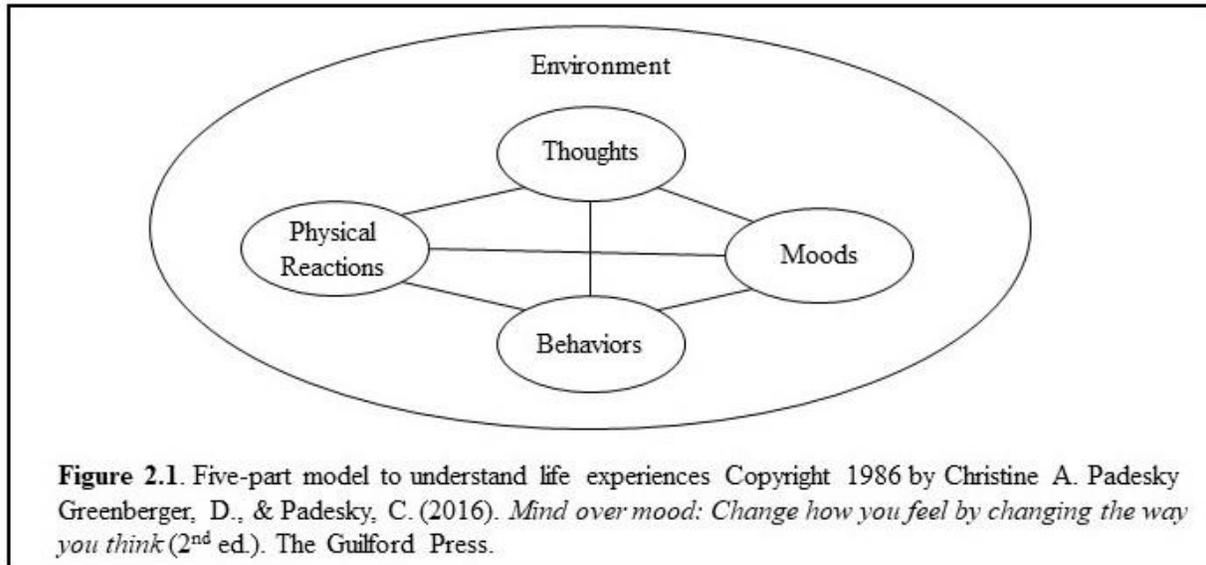


Figure 3: Padesky: Five-part model.

This lack of a distinct cause/effect order comes in part from the commonly accepted cause/effect relationship as illustrated in *Cognitive Behavior Therapy: Basics and Beyond* (Beck, 2011), where again, emotional, physiological, and behavioral “reactions” are bundled into an unidentified cause and effect process (reference Figure 4, page 24). The circular logic of the common ABC thought/emotion diagram, as illustrated in *Mindfulness-Based Cognitive Therapy for Depression* (Segal, et al, 2018), provides only a circular logic of thought and feeling – a causal relationship where feelings are causal to body sensations and impulses to

 Historical Background Perceptions: Emotions as a Cause of Biological Change

act (reference Figure 5, page 25). These diagrams exemplify the confusion and lack of cause-and-effect analysis between cognition and the conscious perception of emotions. Emotions

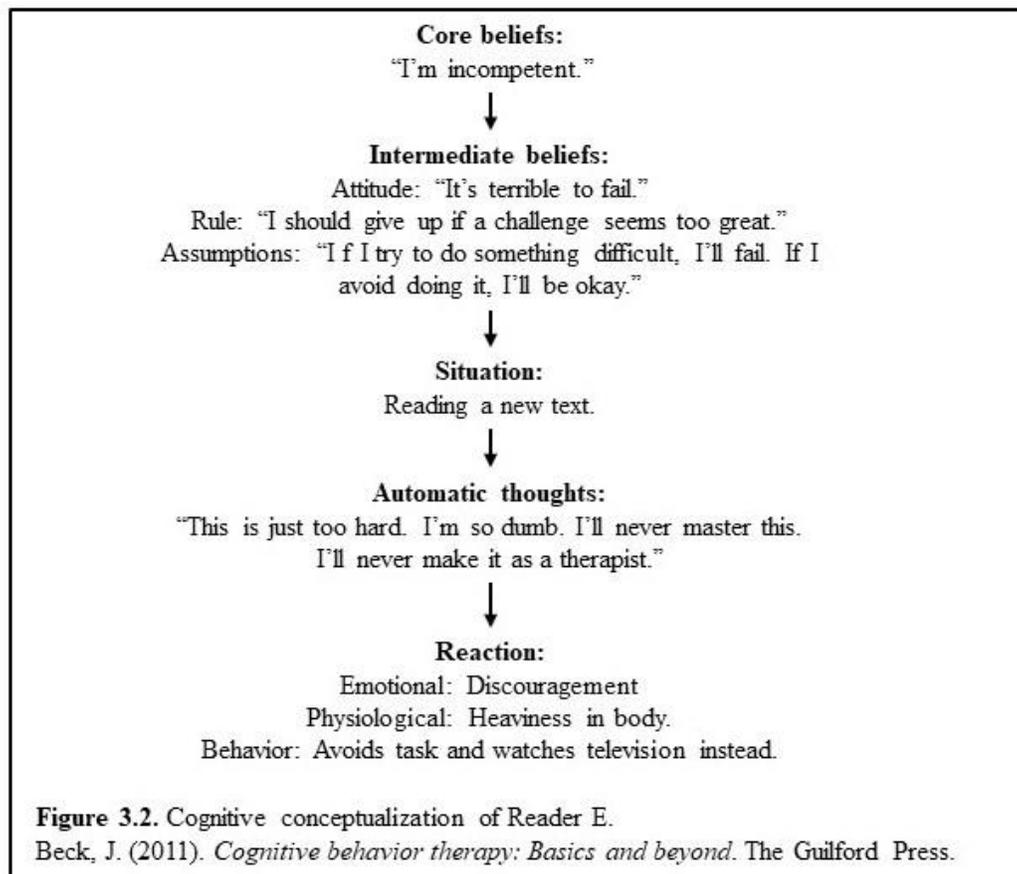


Figure 4: Beck: Cognition to reaction.

are typically characterized as being causal to the physiological changes that drive behavior (Emotion, 2020). Otherwise, why would emotions need to be regulated, managed, and controlled (sometimes using pharmaceuticals)

 Historical Background Perceptions: Emotions as a Cause of Biological Change

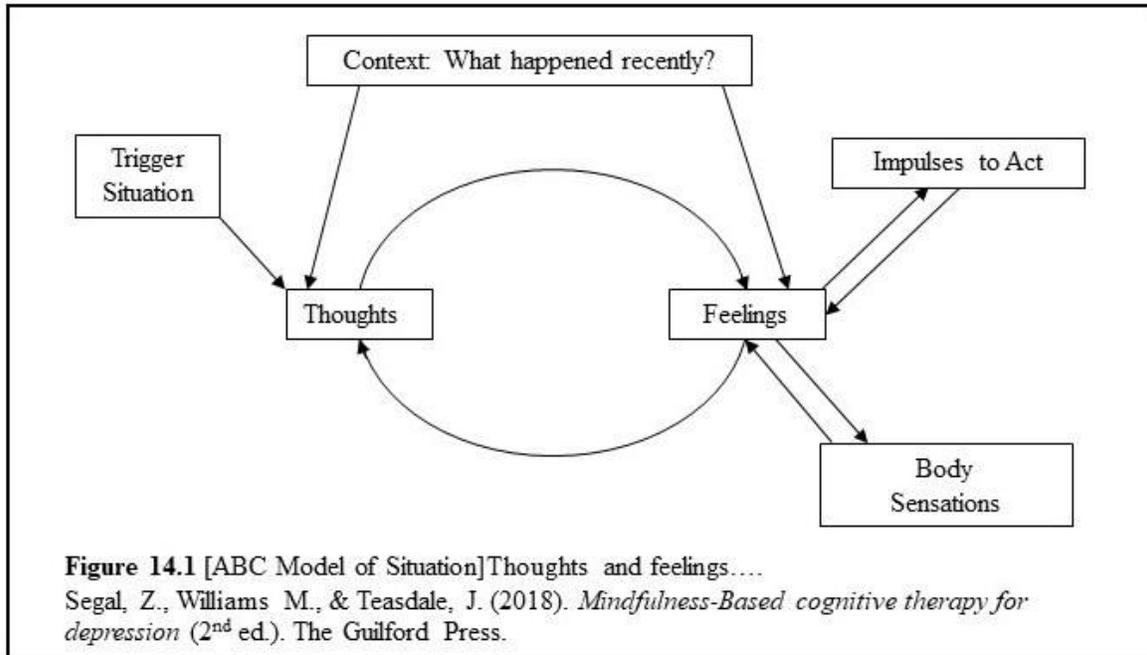


Figure 5: Segal: ABC model of the circular thought–emotion effect

because of emotional dysfunction, disorder, and illness (depression)? By integrating modern observations of the neurological network centers of the brain and physiological changes of the brain and body, the flow in the cause-and-effect process becomes discernable (reference Figure 6, page 26).

Historical Background Perceptions: Emotions as a Cause of Biological Change

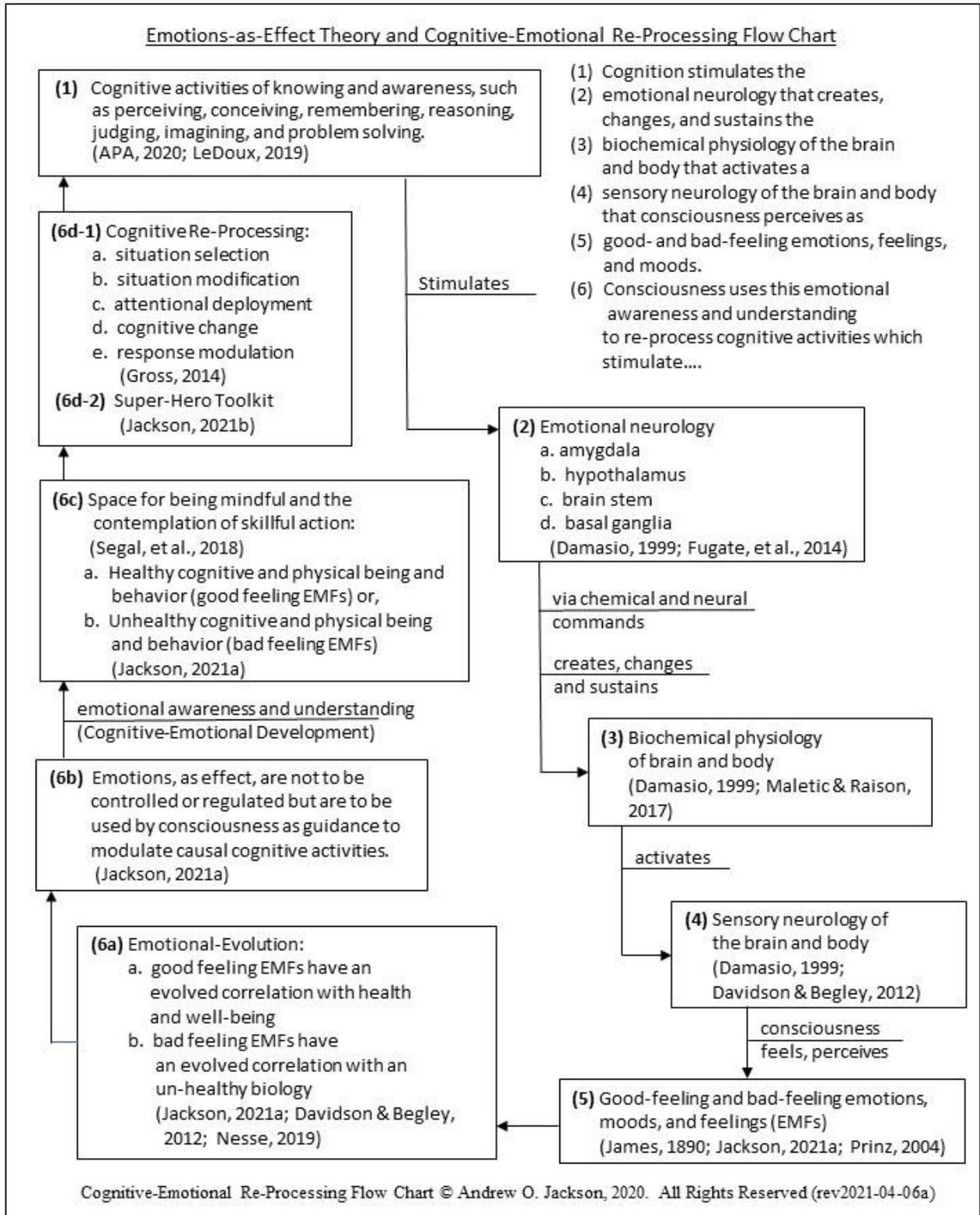


Figure 6: Cognitive-Emotional Re-Processing (Closed-Loop Control) Flow Chart

Emotions in Science, Literature, and Religion

Emotions are perceived in science (Davidson & Begley, 2012), literature (Homer, 800-700/2009), and religion (Goleman, 2003) as potentially aberrant and destructive and in need of management and control, sometimes with the use of pharmaceuticals, because emotions are understood and defined as causal to neurological and biological changes that can have a great effect on driving behavior (Barlow, 2014; Emotion, 2020). The mind neurolinguistically combines (1) the cognitive activities of awareness, (2) changes in the neurology and biology of the body/brain, (3) the feelings and perceptions of these same changes in that neurology and biology, and (4) outward behavior into one cognitive construct called emotion (Tomasello, 2005). In religion and literature, this confusion only adds to the color and mystery of scholarly dissertations, but within science, law, and philosophy, this muddle is unacceptable.

If emotions are causal to neurological and biological changes in the body and brain, then what term should a professor of psychology use when discussing the good- and bad-feeling effects of these same neurological and biological changes that a person feels and perceives? The most commonly used and neurolinguistically programmed term is emotions.

But then what of the perceived causal nature of emotions? Is it reasonable for psychology as a science to use the same terminology as both a cause of biological change and an effect of this same biological change? This is not science. In other words, emotions cannot be defined as both the cause of neurological and biological change and the perceptual awareness of that neurological and biological change.

The Cognitive-Emotional Process Flow

Cognition addresses the processes and activities of knowing and awareness, such as perceiving, conceiving, remembering, reasoning, judging, imagining, and problem solving (APA, 2020), where understanding and comprehension can project future consequences and events. We perceive with our senses of touch, taste, sight, hearing, smell, and touch. Each of these activities have their own system of nerves or neurology, i.e., a neuro-network. We also perceive states and changes within the body and brain as emotions, moods, and feelings (reference Figure 6, page 26):

- 1) Within a cognitive-emotional event, cognitive activities of the brain stimulate an....
- 2) emotional neurology. This neurology is not the emotions a person feels, but is a neurology of the brain that through chemical (hormones) and neural (nerves) creates, changes, and sustains the....
- 3) biochemical physiology of the brain and body. (Physiology is the study of functions and mechanisms in a living system (Wikipedia, 2021).) These biochemical mechanisms activate a....
- 4) sensory neurology of the brain and body that consciousness perceives as....
- 5) good- and bad-feeling emotions, feelings, and moods.
- 6) Consciousness uses this emotional awareness and understanding to 1) re-process cognitive activities which 2) stimulate an emotional neurology... and the re-processing flow of cognition and emotion continues....

Dashboard Analogy

Cognitive-emotional development within an individual is a process of learning, practicing, and utilizing a variety of cognitive-emotional re-processing techniques to where positive feeling emotions, moods, and feelings accentuate compassionate physical behavior.

Dashboard Analogy

Emotions are similar to the “check engine” light on the dash of a car. The light signifies problems within the mechanical “physiology” of the engine. The light is not the cause of the problem. The light is not aberrant or destructive; it has mechanically “evolved” to bring to conscious awareness potential problems within the engine. If these mechanical problems are left unresolved, they will lead to mechanical breakdown and failure – like what is observed in one’s biology when one feels depression or anxiety, which can lead to suicide.

The “check engine” light on the dash of a car is not causal – it is an effect. The issue is inside the engine; it is not the light itself. The light is the messenger informing the operator that if remedial action is not taken, the engine may be damaged because of its physical condition. The light is not destructive and does not need to be controlled, managed, or regulated. The light provides an invaluable service that can improve the health and well-being of the engine. Ignoring the light or taking action to change the light itself – that is, attempting to control, manage, or regulate the light – would be detrimental to the survival of the engine.

Defining Cognition as a Cause

The neurological network that activates neurological and biological changes within the brain and body and is emotionally perceived is referred to as the “emotional brain” or as

Defining Cognition as Cause

emotional neurology (LeDoux, 1996). This emotional neurology is not the perception of emotions but the neurological components – such as the amygdala, hippocampus, and hypothalamus – involved in actuating neurological and biological changes in the brain and body that are then perceived as emotions. As it is, (1) the cognitive acts of perceiving, conceiving of, and comprehending, for instance, a mutilated person in a car accident (2) initiate the activity within one’s “emotional” neurology that (3) precipitates the changes within the brain and body that (4) are perceived as emotions; thus, cognition can be defined as causal and emotions as the perceived effect (reference Figure 6, page 26).

These definitions differ from those in contemporary academic psychology, where emotions are defined as both a cause and an effect of neurological and biological changes within the brain and body. In emotions-as-effect theory, emotions are defined as the good- and bad-feeling perceptual awareness of these same neurological and biological changes that are precipitated by cognition. This is not a 3000-year-old neurolinguistic emotional construct such as that used in religion (Noss & Grangaard, 2008) and literature (e.g., that seen in Homer’s *Iliad*) (Homer, 800-700/2009). This is science. A person driven by anger, jealousy, or greed may be emotionally driven in a movie or book, but in science, these neurologically and biologically induced states are a product of cognitive activities. The significance of teaching a scientific definition and understanding of emotions – separate from their literary and religious conceptualization – in our educational institutions cannot be overstated.

For example, it is important to understand that a person is not emotionally out of control but cognitively out of control. A person is not suffering from depression because of

Defining Cognition as Cause

an emotional disorder and in need of emotional regulation but rather is suffering because of science's linguistic confusion regarding how emotions have evolved to guide cognitive activities. Such people have a cognitive disorder and are in need of cognitive rehabilitation to develop the abilities and skills necessary to change their cognitive activities themselves.

(Note: illnesses and diseases that affect emotional biology are part of another discussion.)

Emotions are the good- and bad-feeling perception of neurological and biological changes precipitated by cognition. Cognition initiates or is causal to the changes in neurology and biology that are then perceived as emotions that feel good – or bad. As such, emotions may be used as a natural cognitive-emotional biofeedback mechanism and may aid in guiding the individual away from aberrant and destructive cognitive behavior and towards behavior that promotes personal health, well-being and success.

Contrary to the linguistics of literature and religion, cognition, not emotion, precipitates the biochemical physiology of the brain and body that drives behavior.

Defining Emotion as an Effect (That Accentuates Behavior)

There is the problem with the commonly accepted linguistic construct of emotions being causal to the changes in an individual's biochemical physiology that drives behavior, that is, emotionally driven behavior. For example, a person cannot have an emotional reaction to a snake unless there are first the cognitive activities of perceiving the snake, understanding that it is a snake, and realizing that the snake can be harmful. Only after these cognitive activities actuate the emotional neurology of the amygdala, hippocampus, hypothalamus and other portions of the brain can there be biological changes in the brain and body that are emotionally perceived (Davidson & Begley, 2012; Fox, 2008). Yes, there is an

Defining Emotion as an Effect (That Accentuates Behavior)

emotional response that occurs (Gross, 2014), but this response is an awareness of the neurological and physiological changes generated by cognitive activities. The emotional response is not causal to the biological changes that drive behavior. Cognition is causal to the biological changes that drive behavior. Emotional awareness is like a diacritic mark adding emphasis, meaning, and understanding to one’s cognitive activities and should (in general terms) accentuate physical behavior only after cognitive re-processing results with a better feeling (and healthy) thought (reference Figure 7).

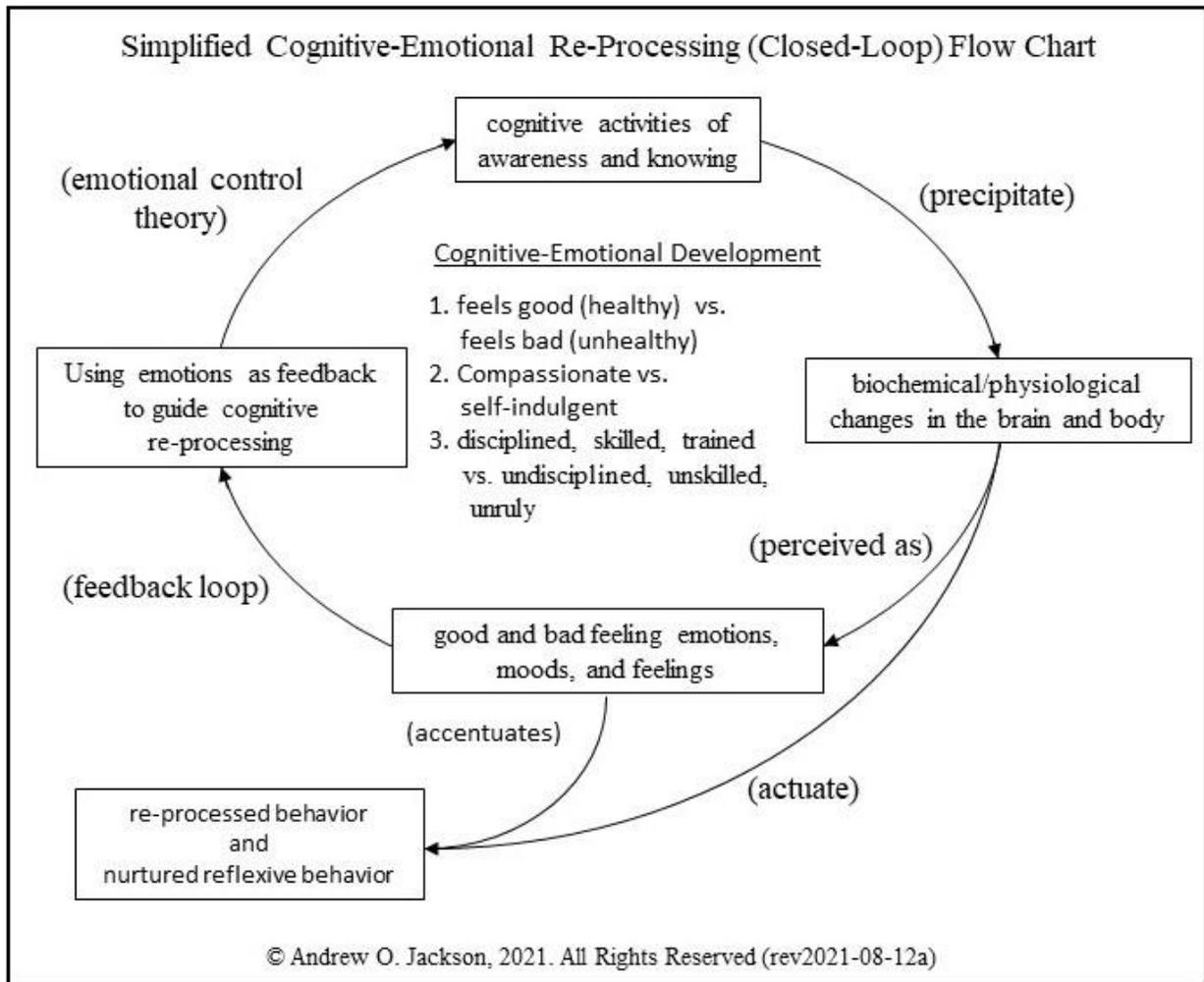


Figure 7: Simplified Cognitive-Emotional Re-Processing (Closed-Loop Control) Flow Chart

Defining Emotions as an Effect (That Accentuates Behavior)

The snake can also be causal to a reflexive action (Panksepp, 1994). However, even here, that reflexive action cannot occur until there is first the cognitive perception – or cognitive imagination – of the snake. Cognitive-emotional development within an individual is a process of learning, practicing, and utilizing a variety of cognitive-emotional re-processing techniques to where positive feeling emotions, moods, and feelings accentuate physical behavior (Jackson, 2021). Lack of cognitive-emotional development is where emotions, moods, and feelings (and behavior) are a result of a circular, self-indulgent cognitive-emotional process lacking any (or very little) conscious re-processing capabilities. Although in sports, dance, music and other highly trained physical behaviors (including military combat) where a feeling good, highly nurtured, developed, and trained cognitive-emotional reflexive behavior is essential, re-processing skills are still desirable for compassionate and healthy (feeling good) behavior. (Note: Upon military personnel decommissioning, redevelopment of an individual’s evolved and natural re-processing and reflexive capacities for civilian life is essential.)

Author’s Note: Maybe someone can come up with better terminology to distinguish between compassionate behavior with the abilities to re-process their cognitive activities until their resultant emotions, moods, and feelings feel good (which correlates with a healthy biochemical physiology) and uncompassionate behavior within an individual without the necessary skills, training, and ability to re-process their cognitive activities to a better feeling place. This latter, undisciplined, reflexive behavior exhibits the commonly accepted traits of “emotions driving behavior” linguistically found in literature and the psychology of emotional dysfunction and regulation. I have labeled such uncompassionate and

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undisciplined behavior as “self-indulgent”, although, great care and understanding must be taken for those individuals who simply have not had the social environment to nurture cognitive-emotional re-processing or those who may have some physiological dysfunction or abnormality. The specific concerns within an individual will come to light when compassionate and healthy cognitive-emotional re-processing skills, training, and abilities are established as an integral part of our primary and secondary education (Jackson, 2021).

Can science retain the definition of emotions as the perceived effect of neurological and biological changes in the brain and body that one’s consciousness feels or perceives and avoid defining emotions as causal to these same changes in neurology and biology? This runs counter to thousands of years of neurolinguistic programming that says that emotions are causal to neurological and biological changes that drive behavior (Homer, 800-700/2009). Scientific emotional terminology (Ekman & Davidson, 1994) cannot be used as both the cause of neurological and biological changes and the perceived result (i.e., the effect) of these same neurological and biological changes. If emotions are not defined as causal, then what terminology can reasonably be used?

Neurological and biological changes in the brain and body that are felt emotionally cannot occur until the cognitive neurological processes of the brain are actualized. That is, there cannot be an emotional reaction to a person being mutilated in a car accident until the event is – consciously or unconsciously – cognitively perceived, conceived, and understood. The cognitive processing of an event activates an “emotional” neurological network that precipitates any number of different combinations of neurological and biological changes that may then – depending upon one’s emotional acuity – be perceived by one’s

Defining Emotions as an Effect (That Accentuates Behavior)

consciousness as a variety of good- and bad-feeling emotions. As such, emotions are the perception of neurological and biological changes (effect) precipitated by cognition (cause) (reference Figure 7, page 32).

The Illusion of Emotions as Aberrant and Destructive

Because the cognitive construct of emotions has been neurolinguistically programmed to include (a) the cognitive activities associated with biological changes, (b) these same biological changes that drive behavior, and (c) the perception of these same biological changes, emotions can be deemed aberrant and destructive. However, an emotional reaction to a person being mutilated in a car accident cannot even occur unless the cognitive perception, conception, and comprehension of the event are first actualized. That is, the causal cognitive awareness and processing of an event must precede the emotional effect of that awareness and processing.

Because cognition is causal to activating the emotional neurology that precipitates biological changes that one's consciousness perceives and conceives of as emotion, cognition can be aberrant and destructive, but emotions cannot. Emotions are the effect. Cognition is the cause. Emotions, from a scientific point of view – not from that of the literary and religious paradigms we have learned from birth – cannot be destructive or aberrant because they are not causal. Emotions as perceived by consciousness do affect cognition and therefore do influence biology, but this perceptual awareness of emotions is a *cognitive activity*.

Emotions are the effect of causal cognitive activity. Cognitive activity can be destructive and aberrant. Emotions are but a reflection of that activity. Most importantly, emotions can be used to understand, guide, reframe, and refine negative emotional and biological cognitive activity into positive emotional and biological cognitive activity. The vast array and classification of emotional disorders, including somatic disorders, dissociative disorders and borderline personality disorder, which can also be conceptualized as disorders of extreme emotional dysregulation (Payne, et al., 2014), further repudiate emotions' evolutionary role in regulating cognitive behavior.

Cognitive therapy for depression that concentrates on identifying and modifying maladaptive "core schemas" is a Socratic style of questioning (Young, et al., 2014) that overshadows a very simple, self-directed, self-aware style in which the very existence of positive or negative emotions, feelings, or moods themselves directly signals the existence of maladaptive thoughts and behaviors. The issue is not to "make progress on short-term goals regardless of how the client is feeling" (Young, et al., 2014) but rather to re-process cognitive activities, transforming them into better-feeling thoughts and potential behaviors before taking any action. The roots of bipolar disorder (Miklowitz, 2014), schizophrenia and other psychotic disorders (Terrier & Taylor, 2014) may be a complete dissociation from the evolutionary emotional regulatory centers of the brain that modulate cognitive activities. Although this is only hypothetical and needs research, the concept itself becomes viable only when emotions' evolutionary role in regulating rather than being regulated is understood and accepted.

The Evolutionary Significance of “Feeling Good” or “Feeling Bad” Emotionally

The Evolutionary Significance of “Feeling Good” or “Feeling Bad” Emotionally

The notion that species develop by naturally selecting attributes that are advantageous for survival is the cornerstone of the theory of evolution (Darwin, 1859). The following scenarios are indicative of evolution’s impact on the development of an emotional directive mechanism if any human is to live to maturity or thrive, producing offspring to continue the survival of the species.

- (1) If feeling good correlates with having a well-balanced and physiologically vital body, then feeling good while climbing a tree to gather food or balancing on slippery rocks in a rushing stream to fish may not be hazardous. However, if feeling good were to correlate with a weakened and lethargic physiology/biochemistry, such challenging actions would tend to be deadly. Such a falsely positive correlation between emotions and a vital biochemical physiology would be disadvantageous to survival.
- (2) How would a genetic line survive if feeling good was correlated with (1) cognitive knowledge of strength, vigor, and adeptness and (2) an actuality of weakness and ineptitude? Such a correlation permits limited survivability when climbing trees, foraging on the savannah in search of food, or, in a modern example, when an inebriated person confidently gets behind the wheel of a car to navigate through rush hour traffic. Where is the motivation to act when there is an actuality of vitality, vigor and strength, but emotionally, there is a feeling of illness, lethargy and weakness? It is logical to conclude that, evolutionarily speaking, feeling good correlates with vitality, vigor, and strength, and feeling bad correlates with illness, lethargy, and weakness.

The Evolutionary Significance of “Feeling Good” or “Feeling Bad” Emotionally

(3) Imagine that basic life behaviors such as breathing or eating were so emotionally painful – or their lack was so pleasurable – as to bring about suffocation, starvation and death. Such an emotional/physiological correlation would lead to the demise of an individual and his or her genetic line. If this was a genetically predisposed or inherited condition or if there was even a genetically developed predisposition to learn such a behavior, such a falsely positive correlation between emotions and physiology would hinder personal and genetic survival. Therefore, there is a natural correlation between feeling good and exhibiting healthy physiological behavior and bodily functions.

From an evolutionary perspective, feeling good means there is a positive correlation between the neural networks that activate (1) cognitive awareness of one’s strength, vigor, and well-being, (2) an actualization of physiological strength, vigor and well-being, and (3) the neural networks associated with the emotions of pleasure. The biochemical physiology of the individual, at both the molecular level and the neural network level, must sustain the correlations among (1) the cognitive knowing and (2) actualization of (3) the feeling of having strength, vigor and well-being and (4) the emotions of feeling good. Simply put, if these correlations did not exist in this way, a person would have a low probability of survival.

Any attempt to understand and affect the internal human environment must be taken with an understanding of the changing biochemical/physiological conditions of that environment as indicated by an evolved emotional neurocircuitry of the human body.

Cognitive Imagination and Evolution

How would a genetic line survive (1) if the body's need for water did not stimulate the mind to produce imagery of obtaining water or (2) if this imagery of obtaining water correlated with negative emotions? If the body needs water, this need must correlate with the mental act of imagining water and with the positive emotions associated with finding and drinking water. That is, there is a correlation between imagining the necessities of life and experiencing positive emotions. If, instead, there was a correlation such that the imagery of food, water, and shelter brought about negative emotions, then these basics of life would be avoided, leading to an evolutionary dead end. Therefore, for the survival of the species, there must be an evolved correlation between (a) the neural networks of the cognitive brain of imagination and (b) the neural networks of the cognitive-emotional biofeedback mechanism such that (c) it feels good when (d) the individual's imagination dwells upon the presence of food, water, and shelter, (e) which are wanted and desired by the body to survive.

When a person dwells upon the presence of that which is wanted, it triggers a healthy biochemical physiology within the brain and body that activates an emotionally positive neural network. When a person dwells upon a lack of that which is wanted, it triggers an unhealthy biochemical physiology within the brain and body that activates an emotionally negative neural network.

How would a genetic line survive if the idea of *not* obtaining food, water, and shelter was correlated with feeling good? Alternatively, how would a person (and his or her genetic line) survive if cognitive imagery dwelt upon that which is not wanted, and this mental activity did not correlate with negative emotions? When a person dwells upon that which is

not wanted, it triggers an unhealthy biochemical physiology within the body that activates a consciously perceived emotionally negative neural network. There must have been an evolutionary development that resulted in these correlations, or we would not have survived as a species.

Cognitive Regulation through Emotional Awareness

Cognition is a cause; emotion is an effect. Aberrant and destructive cognition, *rather than emotions*, must be managed and controlled because cognitive behavior precipitates neurological and biological changes within the brain and body that drive behavior. Emotions have evolved to guide cognitive activity to improve one's health, well-being, and success. Literature and religion may not understand this evolution, but science certainly should.

When factoring in evolution, the emotional perception of the biochemical/physiological states of the body becomes an integral part of the brain's neural network to maintain the body's health, strength and vigor. Emotions bring another attribute of awareness to a person's consciousness regarding the nature of his or her cognitive and physical activities. For the sake of simplicity, emotions, moods, and feelings can be divided into two areas of awareness: those that feel good and those that feel bad.

Because of these evolved mind/body/emotion/consciousness correlations, whether one feels good or bad has a significant meaning for one's biological health. The perception of positive emotions, moods, and feelings signifies cognitive activities that correlate with a physiology that exhibits strength, vigor, and adeptness. The perception of negative emotions

Cognitive Regulation through Emotional Awareness

is a warning signal that the continuation of the causal cognitive activities will have a negative impact on the physical health and genetic survival of the individual.

The simple arguments above are constructed to illustrate how evolution brings about specific relationships among the mind, the body, emotions and consciousness. Numerous complex scenarios can be developed to illustrate the variety of relationships people have with their physical and social environments. The moral and ethical debate of a “feels good, is good” behavior guide has continued for thousands of years and will continue for thousands more. Ultimately, however, it is an individual debate that continues throughout a person’s lifetime – hopefully, a lifetime of continual growth and greater understanding.

Hot Stove Analogy and Depression’s Signature Physiology: Burnt Hand Disease

The physical pain that occurs when a hand rests on a hot stove brings about a very natural reflexive response. The pain is a signal to remove the hand from the stove. The actuation of the body’s natural reflexive response is vital to the maintenance, health, and working order of the hand. If the pain is ignored and the hand remains on the hot stove, the biochemical/physiological state of the hand changes in accordance with the degree to which the hand burns. The feeling of pain affects the health and survival of the body. A hand remaining on a hot stove because of the lack of response to the pain is problematic. Until a reflexive and/or conscious response to the “hand on the hot stove” condition arises, the hand will not begin to heal.

Evolution has built up a biological sensory and reflexive mechanism that pulls the hand off the stove to prevent harm. If, for some reason, the hand remains on the hot stove

long enough to burn, a biochemical examination of the skin will give a definitive analysis comparable to any other hand that has suffered the same fate. However, science does not declare the existence of a “burnt-hand” disease or illness unless someone wants to know why a person would keep their hand on a hot stove. Because the sense of pain is basic to the feedback mechanism that normally and naturally removes the hand from the stove, pain caused by the “burnt-hand” illness should be managed, controlled, or regulated – with medications if necessary – *only as a temporary measure while the body heals and rehabilitates from the injury*. Pain has a very significant evolutionary function, and usurping this function with medications beyond those that are necessary for healing will have dire consequences for the individual.

The *illness* in mental illness arises when healthy conscious – or unconscious – responses to the cognitive-emotional biofeedback mechanism are absent and the individual does not have the mental/emotional capacity, agility, or wisdom to respond to their emotional awareness in a natural and healthy manner to distract their mind from whatever their “hot stove” is. However, is this lack of emotional responsiveness an illness or an injury (Kolk, 2015)? Emotions have a function. Emotions bring about a conscious awareness of the health, or lack thereof, of cognitive activities. Feeling good correlates with a healthy biochemical physiology, and feeling bad correlates with an unhealthy biochemical physiology (Davidson & Begley, 2012). Psychological and pharmaceutical therapy must honor these functions and work to reestablish the normal functioning of an evolved emotional awareness mechanism.

From the perspective of cognition-as-cause and emotions-as-effect theory, the biology of a biochemical/physiological “abnormality” associated with emotional pain (such

The Evolution of Antisocial Personality Disorder

as depression) is analogous to the biochemical/physiological “abnormality” associated with the hand’s physical pain on a hot stove. The more that emotional pain is (1) ignored, (2) suppressed, (3) usurped, (4) biochemically blocked or sedated, or (5) unacknowledged for any other reason such that the individual’s thoughts and cognitive activities remain on the “hot stove,” the more the associated biochemical/physiological signature and neurological processes will differ from those of a “normal” healthy person (Draud, et al., 2011). The issue here is the lack of responsiveness to emotional pain, which seeks to distract the mind from a potentially damaging mental stream of consciousness. The semantics between emotional regulation and cognitive regulation through emotional awareness are critical.

Negative emotions, feelings, and moods that can lead to depression are analogous to burnt-hand disease, where the issue is not the common biochemical signature within a neuroplastic brain (Maletic & Raison, 2017) but why a person would ignore their “feels-bad” emotional perceptions and keep their mind, or more specifically, their cognitive activities of knowing and awareness, upon a mental hot stove? Emotion has an evolved meaning and significance. More specifically, negative and positive emotional feelings have evolved meaning to guide cognitive behavior for individuals’ health, well-being, and success through effective decision making.

This is in direct opposition to current psychological theory, which holds that emotions produce different physiological, behavioral and cognitive changes (Emotion, 2020); therefore, (negative) emotions should be regulated, controlled, and managed, even with the use of pharmaceuticals if necessary (Barlow, 2014; Gross, 2014; Maletic & Raison, 2017). This current psychological theory states that emotion changes the very biochemistry

Hot Stove Analogy and Depression's Signature Physiology: Burnt Hand Disease

of the mind and body that causes emotion. Mathematically speaking, this theory argues that X changes Y and the result is X. Does that even make sense?

Emotion should also be understood as a verb. Feeling an emotion means a person is doing and is taking (cognitive) action, and unlike the reflexive action of removing a hand from a hot stove after feeling pain, emotional pain allows time and space for the analysis, understanding, and comparison of any number of combinations of cognitive activities (and their resulting outward expression and behavior) that feel good. Rather than being a separate and singularly focused class in psychology, the understanding and education of a biologically evolved emotion biofeedback mechanism should be an integral part of every aspect of primary and secondary school curricula (Jackson, 2021).

The interplay between cognitive activities that feel emotionally positive and those that feel emotionally negative lays the foundation for individual, cultural, and societal regeneration and rebirth and the creation of something new: "I am emotionally aware of what I don't want. Now what is it that I do want and desire? What action, mental or physical, can I take now, today, or tomorrow that will lead me on my emotionally positive journey?" Happiness is not something a person attains and therefore possesses like a house or a car. Happiness is a continual journey of re-processing cognitive activity so that it transforms from the emotionally negative into the emotionally positive.

Neuroplasticity: The neural networks that supported a reality and the cause of violent behavior yesterday – those same neural networks have the physical plasticity to change today and to no longer have the capacity to support that violent reality and behavior tomorrow.

The Evolution of Antisocial Personality Disorder

The Evolution of Antisocial Personality Disorder

Because of the brain's neuroplastic ability to develop alternate networks, more advanced mental constructs of wanting and desire can develop as a person matures. The combination of internal physiological behaviors and external physical exertion to ensure survival also means that there is a more complex development between the biological body and emotions than one might otherwise assume. Early humans' movement to gather food or even to hunt on the African savannah meant survival. Thus, a correlation between emotional pleasure and physical activity was evolutionarily advantageous.

Although the joy of the hunt and the pleasure of gathering may produce the food needed for survival, during the heat of the day, continual exertion risks heat exhaustion, dehydration and death. Rather than being a mere pawn of pleasure and pain, one must decide whether to continue hunting in such adverse conditions, with the survival of oneself and one's family as a possible outcome and the death of the hunter and those dependent on the hunter's survival as another. Alternatively, the hunter's survival alone may become evolutionarily advantageous.

Thus, the neuroplasticity of the cognitive and emotional networks involves a level of complexity that permits cognitive reflection on the conditions for physical exertion and the weighing of the conflicting factors of feeling good while obtaining food and feeling bad because of the heat. The success or failure of these reflections and choices might spawn different genetic lines with different values and behaviors, with one emphasizing the individual's survival and another emphasizing the survival of the family. One genetic line may care about other people; another genetic line may not. Therefore, "antisocial personality

disorder” would not be considered an actual disorder; rather, it would be a natural part of some individuals’ evolution. Any successful interaction with these individuals – whether individually or as a society – must recognize and respond to their lack of capacity for compassion, understanding, and kindness except when it pertains to their own well-being and interests.

Improving the Efficacy of Evidence-Based Therapies

Well-being and the success of any professional therapy, mental or physical, is not defined by the absence of illness but by the presence of health, vigor, and joy along with the necessary cognitive skills, abilities, and motivations to nurture these conditions by employing one’s own cognitive-emotional biofeedback mechanism

Emotional Dysregulation: Current psychological therapy understands emotions as potentially aberrant and dangerous because it holds that emotions change the biochemical physiology that drives behavior. Therefore, these emotions must be controlled, regulated, and managed, and if necessary, this should be done with pharmaceuticals. Because emotions can lead to aberrant and dangerous behavior, emotions are not to be trusted. Cognitive behavior therapies use the intellect to reason out appropriate and desirable cognitive and emotional responses and behavior.

The very first sentence in Homer’s *Iliad* laid the erroneous emotional linguistic foundations for today’s evidence-based therapies:

“Goddess, sing me the anger, of Achilles, Peleus’ son, that fatal anger that brought countless sorrows on the Greeks and sent many valiant souls of warriors down to Hades,

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leaving their bodies as spoil for dogs and carrion birds: for thus was the will of Zeus brought to fulfilment” (Homer, 800-700/2009).

Achilles’ *anger* brought countless sorrows. Achilles’ *anger* sent many valiant souls to Hades. In this text, the emotion of anger is causal; that is, anger is the cause of Achilles’ behavior. This erroneous cognitive-linguistic construct of the mind continues to this day in literature and spoken language and has been an unquestioned foundation of modern evidence-based therapies such as:

1. rational emotive behavior therapy (REBT) (Ellis & Ellis, 2019)
2. cognitive behavior therapy (CBT) (Beck, 2011)
3. mindfulness (Farb, et al., 2014)
4. mindfulness-based cognitive therapy for depression (Segal, et al, 2018)
5. eye movement desensitization and reprocessing (EMDR) (Shapiro, 2018),
6. forgiveness therapy (Enright, & Fitzgibbons, 2015)
7. positive psychology (Lopez & Snyder, 2009)
8. emotional intelligence (EI) (Salovey, et al., 2004)
9. interpersonal psychotherapy (Stulberg, et al., 2018)

All of these therapies use a definition of cognition that addresses the processes of knowing and awareness, such as perceiving, conceiving, remembering, reasoning, judging, imagining, and problem solving (APA, 2020), where understanding and comprehension can project future consequences and events. All of these therapies re-process these cognitive activities (Gross, 2014) to help a person attain a better emotional situation (James, 1890; Prinz, 2004) in their lives.

However, is emotion truly the cause of the physiological changes in the brain and body that drive behavior, which is then perceived as *emotion*? (Does that make sense?) Furthermore, should emotions be regulated, controlled, or managed with the use of pharmaceuticals (Gross, 2014)? Is there such a thing as an emotional disorder (Barlow, 2014; Maletic & Raison, 2017)? When changes in physiology are integrated into psychology's cognitive-emotion process flow diagrams, all of these questions must be readdressed by science, language/literature, philosophy, religion, and law because *emotion does not change the physiology that is perceived as emotions*, cognition does.

Cognitive Dysregulation: Emotion-as-effect theory argues that cognition, not emotion, changes the biochemical physiology that drives behavior. Therefore, cognition must be controlled, regulated, and managed. Emotions are the perception of biochemical and physiological changes of the brain and body (precipitated by cognition). A relationship between emotions and physiology has evolved where good-feeling emotions correlate with a healthy physiology and bad-feeling emotions correlate with an unhealthy physiology. Cognitive behavior therapies work because cognition changes the biochemical physiology that is then perceived as emotions. Cognitive-emotional behavior therapies trust these emotions, moods, and feelings to understand and guide appropriate, desirable, and healthy cognitive behavior.

Rather than demonizing emotions as aberrant, destructive, out-of-control and in need of regulation because of an emotional disorder, emotions-as-effect theory understands emotions as an evolved sensory system, akin to the senses of pleasure and pain, giving conscious feedback on the healthy/unhealthy state of biochemical physiology. Cognition, not

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emotions, precipitates the biochemical physiology of the brain and body that drives behavior. Emotions, moods, and feelings, instead of being regulated by cognitive behavior, are used to guide cognitive behavior and decision making to enhance the health, well-being, and success of the individual.

It is the dysregulation of cognition, not emotion, that is causal to the aberrant changes in an individual's biochemical physiology that leads to suicidal depression, psychotic mania, and a dysfunctional biochemical physiology susceptible to disease and illness. Cognitive-behavior therapies work because cognition changes the biochemical physiology that is then perceived as emotions.

Warning 1: Denial of the emotional biofeedback mechanism. Emotional disorders (Barlow, 2014) such as depression, anxiety, suicide, mania, bipolar disorder, borderline personality disorder are not emotional disorders but cognitive disorders that deny an evolved emotional biofeedback mechanism. A belief in emotional control, management, and regulation because of the influence of “emotional” disorders on a person’s biochemical physiology convolutes emotions’ evolutionary role to pivot off of emotionally negative cognitive behaviors towards emotionally positive cognitive behaviors. If emotions are deemed untrustworthy because of a false belief that aberrant and dangerous emotions drive behavior, the emotional biofeedback mechanism is further sabotaged in fulfilling its evolutionary role.

The emotional rollercoaster ride provided by the entertainment industry through such mediums as movies, television, books, songs and music is dependent on a certain denial of the evolved emotional bio-feedback mechanism to guide cognitive activity towards well-

being. This suspension of emotional understanding can bleed into daily life and disrupt emotions' role in guiding cognitive behavior.

Warning 2: Camouflaged aberrant cognitive behaviors. Any psychological or pharmaceutical therapy that changes a person's natural and evolved cognitive-emotional correlations can camouflage aberrant cognitive behaviors normally exposed through emotional dissonance. These unabated cognitive behaviors can continue to change a biochemical physiology so that a person erupts into dangerous, psychotic, and suicidal behaviors.

Warning 3: Unrecognized defense against illness, infections, and disease.

Biochemical abnormalities that are emotionally perceived may not originate from psychological cognitive activities. Instead, they may be attributed to illness, infection, or disease. However, by consciously working to feel good, the body builds another evolutionary defense for survival. Feeling emotionally good has an evolved correlation with being biologically healthy and vigorous. Therefore, by consciously working to feel good rather than just succumbing to emotionally negative biological activity, evolution has set up another layer of resistance to fight off illness, infection, and disease.

However, modern psychology attributes the power of causality to emotions. As previously mentioned, emotions cannot be trusted. Emotions can be aberrant and destructive and cause overly aggressive behavior. If negative emotions stemming from an emotional disorder are managed pharmaceutically, science is again usurping emotions' evolutionary role in maintaining one's health, vigor, and well-being during a physical illness. By cultivating a cultural attitude that dismisses the emotional "dashboard light" of negative

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emotions and does not recognize the role of negative emotions in informing one's consciousness that extra effort must be made to maintain an emotionally good-feeling attitude, science is creating a physically weak society. People who have developed cognitive abilities needed to maintain an attitude and mood of emotionally positive feelings empower themselves to survive pandemics such as the COVID-19 pandemic.

Warning 4: Misguided action upon an external world. If an individual or patient is never taught (1) how to use their cognitive-emotional biofeedback mechanism and (2) that good- and bad-feeling emotions, moods, and feelings are about their own cognitive activities and (3) how these good and bad feelings have evolved in correlation with the health and well-being of their own biochemical physiology, or (4) even more detrimental, is taught to ignore, constrain, or inhibit this evolutionary biofeedback mechanism, they will continually associate and give credit or fault to the origins of these emotions, moods, and feelings to an external world. An individual or patient will then act upon their external world according to their own interpretations, understandings, and beliefs derived from their personal experiences, education, and training through life – even to the detriment of their own health, well-being, and success because feeling good or bad is not about what “I” am doing: “I feel this way because of what ‘they’ and the external world of circumstances, events, and happenings are doing to me. And if they and the world do this to me, how can I act in ways other than what I understand, know, and believe.” Feeling good has become about changing, controlling, or acting upon “them” and the external world – as people have been taught.

Warning 5: Misguided “feels-good-is-good” morality. Rather than rigorously adopting and adhering to a set of feels-good religious, political, or academic set of beliefs

and understandings that deny an internal reflection of personal cognitive behaviors, our educational institutions (parents, schools, religions, governments, etc.) must teach, develop, and empower a feels-good-is-good cognitive-emotional dynamic that can rationally and comprehensibly debate the moral dilemmas facing each new generation.

Warning 6: Literacy can adversely affect natural cognitive-emotional development.

The current linguistic semantics of emotional behavior depicted in secular and religious literature can reinforce a self-indulgent reflexive behavior driven by emotions. This reptilian portrayal of emotional behavior ignores any conscious re-processing cognitive activities towards a behavior accentuated by a better feeling thought. To enjoy the thrill and excitement of a fantasy world and to understand and comprehend the more complex emotional behaviors within the intricacies of some advanced character and plot progressions, a reader must be even more willing to suspend their disbelief and accept a self-indulgent reality of emotions driving behavior. Literacy becomes problematic when natural cognitive-emotional re-processing development is usurped by a singular reality of reflexive and self-indulgent emotional driven behavior void of any re-processing skill, education, and training.

Because joy has an evolved correlation with health and well-being, we have evolved to be joyous beings. Yet a self-centered feels-good-is-good morality must be tempered within a compassionate awareness of the symbiotic connection between all humanity that demands cognitive-emotional re-processing skill, education, and training.

 Success in Education

Success in Education

“Even as the history of our discipline is implicated in systemic racism, such modes of inquiry remind us of literature’s capacities for critique, resistance, and transformation. We resolve to pursue those capacities across all areas of literary study.” J. Brantley, English Chair, Yale University.

Emotional literature appeared in the Western world almost 3,000 years ago with Homer’s *Iliad* and *Odyssey*. Whether for entertainment – poets lifting and casting down their audiences’ emotions like a roller coaster excites and thrills or frightens its breathless riders – or for cognitive awareness and development, reading, understanding, and writing literature are necessary actions in our modern world, as is understanding emotions’ evolutionary role for the maintenance of individuals’ health and well-being. Losing one’s self within the emotional moment, either for the joy, thrill, and excitement of the entertainment or for the educational value of walking within another person’s shoes while being emotionally engaged within a character of a movie, book, play, or ballet (or of any other medium) means suspending a natural emotionally guided cognitive re-processing behavior that has evolved for their health, well-being, and success. Both the entertainment/educational mode and the evolutionary re-processing mode of cognitive-emotional behavior have their place and the awareness and understanding of both modes of cognitive-emotional behavior must be part of every individual’s education.

Developing a child’s skills and ability to re-process cognitive activities based upon their emotional feedback is a necessary function of elementary school education. But how does one explain to an elementary school student – in age-appropriate terminology – that “emotional regulation refers to any process an individual uses to influence the onset, offset, magnitude,

duration, intensity or quality of one or more aspects of an emotional response (Gross, 2007)” (McRae, et al., 2012) when emotions themselves are not what should be regulated but should instead be used as feedback to regulate cognitive activities?

How long will the academic institutions of early education, language, linguistics, literature, psychology, philosophy, and law continue teaching an erroneous and dangerous cognitive/emotional dynamic regulatory language based in a 3000-year-old literary and religious linguistics when there are, yearly, nearly 800,000 deaths by suicide worldwide (W.H.O., 2019) and millions of other people are being put through a school-to-prison pipeline (LDF, 2018) within conditions of incarceration that only amplify their psychological injuries; and when indiscriminate “random” shootings, bombings, murder, war and individual dehumanization continues where people and politics have become objects to be controlled, manipulated, and subjugated for the personal greed and satisfaction of a dominate and power-hungry class of tyrants vying for economic and political control within a government of their own making? When will these academia review, analyze, and question the psychological environments their teachings foster within all of these atrocities because they are oblivious to emotions’ evolutionary design? The lack of casual and scholarly questioning and review of an erroneous emotional linguistics commonly misused in everyday life only add to the misfortune of these children of a lesser god (Medoff, 1979).

If philosophy, religion, and law are ignorant of what drives human behavior and decision making, how can there be but laws of ignorance and injustice (and disorder, conflict, and crisis). Justice founded upon falsehood is itself false and unjust.

Success in Education

Emotions (James, 1890; Prinz, 2004) have not evolved to be controlled, regulated, or managed by cognition, as the linguistics of psychology, religion, and literature suggest (Homer, 800-700/2009; Gross, 2014). The status quo of an emotional dysfunction theory that demands emotional regulation and management (sometimes even with the use of pharmaceuticals) is like a walk into Plato's cave (Allegory, 2020). A lifetime of secular, and perhaps religious, learning, practice, teaching, and potentially even research based on a belief in emotionally driven behavior and decision making has hardwired (neuroplasticity) into humans a reflexive neurocircuitry erroneously devoted to emotional dysfunction theory. For any one person to accept another cognitive/emotional dynamic requires a brutal commitment to science and logic. Outside of Plato's cave, the foundation of another paradigm in cognitive-emotional understanding can be found.

Emotions have evolved for millions of years. They had become a very effective tool giving valuable feedback on the nature of one's personal cognitive activities. Yet, when Homer wrote the *Iliad*, he began a false inscription of emotions' evolved role in effective behavior, decision making, and creativity to develop and maintain an individual's health, well-being, and success. The importance of knowing, understanding, and teaching our children how emotions carry out these primary functions cannot be overstated. How long will academia continue the instruction, edification, and liability of an emotional/cognitive dynamic regulatory theory erroneously based in a 3000-year-old literary and religious linguistics?

The success of any educational institution cannot be defined solely by its students' ability to secure cognitive achievements; success must also be defined by a student's ability to achieve health, vigor, and joy along with the necessary cognitive skills, abilities, and

motivation to nurture these learning conditions throughout life by employing their own evolved cognitive-emotional biofeedback mechanisms.

Conclusion

The linguistic semantics of “emotional control” is dependent on whether its foundation is within literature or engineering control theory. In literature, and current psychology, emotions are causal to the biochemical and physiological changes within the brain and body that drives behavior. In emotions-as-effect theory (founded in engineering control dynamics), cognition is causal to these physiological changes and emotions are an effect used as feedback to re-process cognitive behavior.

The foundational basis of rational emotive behavior therapy (REBT) (Ellis & Ellis, 2019), cognitive behavior therapy (CBT) (Beck, 2011), mindfulness (Farb, et al., 2014), mindfulness-based cognitive therapy for depression (Segal, et al, 2018), eye movement desensitization and reprocessing (EMDR) (Shapiro, 2018), forgiveness therapy (Enright, & Fitzgibbons, 2015), positive psychology (Lopez & Snyder, 2009), emotional intelligence (EI) (Salovey, et al., 2004), and interpersonal psychotherapy (Stulberg, et al., 2018) is emotions-as-effect theory. These therapies change cognitive behavior to achieve a desired emotional and behavioral outcome. Emotions do change. Behavior also changes (Kolk, 2015; Barlow, 2014). However, what does the symbiotic relationship between mind, body, emotions, and consciousness look like? Where do the positive and negative emotional jigsaw pieces fit in this schema? Emotions-as-effect theory (and corresponding cognitive–emotional process flow chart) provides an answer.

Conclusion

Therapy that acknowledges the evolved correlation between cognition and emotions reaffirms an evolved biological awareness mechanism wherein emotions are used to evaluate cognitive behaviors (reference Figure 7, page 31). In stark contrast to the linguistics of “emotional regulation,” in emotions-as-effect theory, emotions are not “regulated” but are used to regulate or guide cognitive behaviors. Additionally, in this context, emotions are not viewed as “out of control,” nor is there the concept of “emotional dysregulation” (Barlow, 2014). In contrast, it is the cognitive mind that is “out of control,” and the therapeutic process addresses a “cognitive disorder.” (Note: within engineering control theory terminology emotions are out of control and emotional regulation and control is correct - when emotions are an effect and used as feedback within a closed-loop control system to guide cognitive behavior.) Deviant emotional perceptions are reflections of this aberrant dysregulated cognitive behavior. Emotions are not treated as dysfunctional; rather, they are understood as very functional in that they make one conscious of dysfunctional aspects of one’s cognitive activities that create the aberrant biochemical physiology one person perceives as negative emotions. It is these irregularities in cognitive behavior that need to be addressed, as emotions are but the messenger.

The mental health and well-being of a society are determined by the mental health and well-being of its individual inhabitants. A culture that is ignorant of emotions’ evolutionary role in guiding individual cognitive and physical behavior is subject to all kinds of forces that can misdirect cognitive activities towards nefarious ends. Continual distortions of the evolved nature of emotions as “emotional disorders” described by current psychological, psychiatric, and pharmaceutical institutions as being in need of “emotional management and control” only

Conclusion

further sabotage the opportunity to use emotions to improve individual and societal mental health and well-being.

Until the true nature of emotions is understood, individual emotional behavior will be continually preyed upon by those who wish to control and subjugate individuals for their own selfish interests, be those interests good or bad. Until the true nature of emotions is understood, individuals experiencing hardship are vulnerable to being made tragically complicit in the selfish and corrupt actions of those who wish to control and dominate others (Bandler, 2008; Kenrick, et al., 2015). Because feeling-good emotions correlate with health and well-being, nature has constructed an association between feeling good and good morality. Now, it is up to humanity to nurture this morality within the nuances of living in our modern world.

The pain and hardships of life plant the seeds of intent and desire that formulate into individual and personal short, long, and immediate goals. Receiving a formal education on emotions' evolutionary role within human behavior can determine whether these seeds yield nurture or destruction. Societal institutions –parenting, education, religion, politics, and other institutions – all have a responsibility to empower individuals with an emotional awareness and ability that uses negative-feeling cognitive activities and behaviors as a springboard to produce positive-feeling cognitive activities and behaviors. Humanity's future depends on the empowerment and understanding of the moral complexities of individual decision-making and following behavior driven by a biologically evolved emotional compass with cardinal points of “feels good, is good” and “feels bad, is bad”.

Ignorance is to speak of desire itself as the cause of suffering rather than understanding that it is the continual cognitive awareness of the lack of that which is desired that is the cause of suffering.

Emotions-as-Effect Theory

Emotions, moods, and feelings are felt. They are perceived. Although good- and bad-feeling emotions, moods, and feelings (EMFs) vary in duration and level of awareness of associative cognitive and physical behaviors, states, and changes. They all are the conscious perception of a biochemical physiology within the body and the brain precipitated by an evolved and nurtured cognitive neural circuitry.

Because emotions, moods, and feelings are perceptions of an internal state of biology precipitated by cognition, EMFs are a reflection of and provide insights into the nature of this cognitive behavior. Additionally, because EMFs are a perception of states and changes of physiology and are not causal of these states and changes, EMFs are neither destructive nor constructive; rather, they are indicators of the presence of very real destructive and constructive – and causal – cognitive behaviors.

Correlations between cognition, healthy biochemical physiology, and good-feeling EMFs are a result of millions of years of evolutionary struggle to ensure the health and well-being of the individual – as are the correlations between bad-feeling EMFs and an unhealthy biology. Now, the question is how are these correlations between cognition, physiology, EMFs, and consciousness understood, nurtured, and developed within a society to improve an individual's health, well-being, and success through their own successful decision-making and creativity?

Research Questions

1. How would the function of the neurological areas of the brain be reinterpreted if the positive and negative valances of emotions, feelings, and moods had evolved to regulate cognitive areas/activities of the brain?
 - a. Is there an inherent adaptive information processing system (Kolk, 2014; Shapiro, 2018) between functional areas of the brain that relates to the positive and negative valances of emotions, feelings, and moods?
 - b. Is there a neuroplastic adaptive information processing system between functional areas of the brain that relates to the positive and negative valances of emotions, feelings, and moods and operates below the level of the conscious awareness and feeling of emotions, feelings, and moods (Damasio, 1999, Ledoux, 1994)?
2. Is there an increased effectiveness of established psychological therapies when patients are taught (1) cognitive re-processing skills; (2) how to use the positive and negative valances of emotions, feelings, and moods as feedback to self-regulate their cognitive and physical behavior; and (3) when to allow feelings, emotions, and moods to freely drive cognitive and physical behaviors when watching movies, reading literature, listening to music, viewing art or performing arts, spectating or playing sports, and engaging other physical and entertainment activities? Note: The re-processing skills needed to regulate cognitive behavior and therapy effectiveness measures and how these re-processing skills vary for different age groups have yet to be determined. Established therapies to this end

Research Questions

include CBT, EMDR, forgiveness therapy, mindfulness-based cognitive therapy, positive psychology, and interpersonal psychotherapy.

3. What are the effects of different pharmaceutical medications designed to “regulate emotional behavior” on a patient’s ability to learn (1) cognitive re-processing skills; (2) how to use the positive and negative valances of emotions, feelings, and moods as feedback to self-regulate cognitive and physical behavior; and (3) when to allow feelings, emotions, and moods to freely drive cognitive and physical behaviors as a function of appreciating and participating in entertainment involving movies, literature, music, art, performing arts, sports, and other physical and entertainment activities?
 - a. Are there a series of medications with a progressively decreasing physiological impact that allow a patient to more effectively respond to their emotional awareness as they progress in psychological and pharmaceutical therapy and develop the capacity to appropriately respond and regulate their cognitive behavior through associative emotional awareness?
4. Does learning the following provide a patient with a sense of self-empowerment and control over the therapeutic process: (1) cognitive re-processing skills; (2) how to use the positive and negative valances of emotions, feelings, and moods as feedback to self-regulate cognitive and physical behavior; and (3) when to allow feelings, emotions, and moods to freely drive cognitive and physical behaviors as a function of appreciating and participating in entertainment involving movies, literature, music, art, performing arts, sports, and other physical and entertainment activities? If so, does this sense of

Research Questions

empowerment and healing improve the effectiveness and continued use of therapeutic practices?

5. Although there exists a great amount of literature describing cognitive and emotional activities and the associated neurological areas of the brain, much would be gained by integrating conscious awareness and association or disassociation within the same analysis. How much mood dysfunctional regulation within psychotic mania can be attributed to a lack of conscious awareness and association with depressive functional areas of the brain, and vice versa for major depressive disorder? Similarly, how much of the observed biochemical and physiological signatures of mental disorders within the body and brain can be attributed to a lack of conscious understanding and ability to self-regulate cognitive behavior by using emotions, feelings, and moods as feedback mechanisms?
6. Are there significant differences in the effectiveness of cognitive re-processing skills to change cognitive behavior in response to positive and negative valances of emotions, feelings, and moods for individuals with a history of activities involving the arts and performing arts such as music, dance, and theater versus those without a history of participating in such activities?

Note: The identification of different re-processing skills to regulate cognitive behavior, relevant educational training curriculum, measures of the effectiveness and improvement of these skills, and measures of the effectiveness of various re-processing skills for different affective states within different age groups have yet to be determined.

Research Questions

7. Are there improvements in personal physical health and well-being when elementary school students are taught (1) cognitive re-processing skills; (2) how to use the positive and negative valances of emotions, feelings, and moods as feedback to self-regulate cognitive and physical behavior; and (3) when to allow feelings, emotions, and moods to freely drive cognitive and physical behaviors as a function of appreciating and participating in entertainment involving movies, literature, music, art, performing arts, sports, and other physical and entertainment activities? Note: The re-processing skills needed to regulate cognitive behavior, physical health, and well-being improvement measures and the ways these re-processing skills should be taught will vary for different age groups and have yet to be determined.
8. Are there improvements in classroom behavior when students are taught (1) cognitive re-processing skills; (2) how to use the positive and negative valances of emotions, feelings, and moods as feedback to self-regulate cognitive and physical behavior; and (3) when to allow feelings, emotions, and moods to freely drive cognitive and physical behaviors as a function of appreciating and participating in entertainment involving movies, literature, music, art, performing arts, sports, and other similar activities? Note: The re-processing skills needed to regulate cognitive behavior, classroom behavior improvement measures, and the ways these re-processing skills should be taught will vary for different age groups and have yet to be determined.
9. Are there improvements in student learning when students are taught (1) cognitive re-processing skills; (2) how to use the positive and negative valances of emotions, feelings, and moods as feedback to self-regulate cognitive and physical behavior; and (3) when to

 Research Questions

allow feelings, emotions, and moods to freely drive cognitive and physical behaviors as a function of appreciating and participating in entertainment involving movies, literature, music, art, performing arts, sports, and other physical and entertainment activities? Note: The re-processing skills needed to regulate cognitive behavior, classroom behavior improvement measures, and the ways these re-processing skills are taught will vary for different age groups and have yet to be determined.

- a. What cognitive-emotional states are conducive to (1) inspiration, (2) problem solving, and (3) imagination?
 - b. What cognitive-emotional states are conducive to memory and recall, which, in turn, improve students' educational performance?
- 10.** Are there improvements in individual sports performance and a reduction in sports injuries when athletes are taught: (1) cognitive re-processing skills, (2) how to use the positive and negative valances of emotions, feelings, and moods as feedback to self-regulate cognitive and physical behavior, and (3) when to allow feelings, emotions, and moods to freely drive cognitive and physical behaviors as a function of appreciating and participating in entertainment involving movies, literature, music, art, performing arts, sports, and other physical and entertainment activities? Note: The re-processing skills needed to regulate cognitive behavior, measures of performance behavior improvement and reductions in sports injuries, and the ways these re-processing skills are taught will vary for different age groups and have yet to be determined.
- 11.** Are there improvements in recidivism when incarcerated people are taught (1) cognitive re-processing skills; (2) how to use the positive and negative valances of

Research Questions

emotions, feelings, and moods as feedback to self-regulate cognitive and physical behavior; and (3) when to allow feelings, emotions, and moods to freely drive cognitive and physical behaviors as a function of appreciating and participating in entertainment involving movies, literature, music, art, performing arts, sports, and other physical and entertainment activities? Note: the re-processing skills needed to regulate cognitive behavior, recidivism improvement measures, and the ways these re-processing skills should be taught will vary for different social groups and have yet to be determined.

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Revisions

1. 2020-07-01a: Release with editing from AJE
2. 2020-07-01a – 2020-08-2a: Various cover and internal formatting changes
3. 2020-08-09a: Added “Letter to Academics in Psychology, English, and Literature”
4. 2020-08-10a – 2020-06-03a: Various edits to the “Dear Academics” letter
5. 2020-09-08a: Added Appendix A: Revisions and references
6. 2020-09-10a: General editing
7. 2020-09-16a: Rewrote introductory letter
8. 2020-09-19a: Edited Figure 1: Cognitive-Emotional Process Flow Chart
9. 2020-09-24a: Added William James’s cognitive-emotional process flow chart
10. 2020-09-26a: Within cognitive-emotional process flow chart, replaced “(emotions-as-effect theory)” with (Jackson, 2020) and added the book to the reference list
11. 2020-09-29a: Corrected reference formatting errors (, &)
12. 2020-10-01a: Revised mindfulness-based cognitive therapy for depression to second edition version (Segal, 2018)
13. 2020-10-09a: Edited typos in references; added improving EBT letter; reordered frontmatter
14. 2020-10-11a: Separated Abstract into multiple paragraphs
15. 2020-10-12a: Revised “Improving Evidence-Based Therapies Letter”
16. 2020-10-12b: Added postscript to “Improving Evidence-Based Therapies Letter”
17. 2020-10-23a: Added “Burnt-Hand Disease/Depression as a Verb” letter
18. 2020-10-23b: Edited Abstract and Synopsis (3).
19. 2020-10-23c: Corrected (Segal, et al, 2018) reference typos
20. 2020-10-28a: Modified cognitive-emotional flow chart; added emotions, moods, and feelings (EMFs) to list definition notes; differentiated (Jackson, 2020a) with EaET and (Jackson, 2020b) with Cognitive-Emotional Education.
21. 2020-10-28b: Edited “Abstract”
22. 2020-11-01a: General editing throughout

Revisions

23. 2020-11-14a: RENAMED PAPER using dysregulation instead of regulation: (*Emotions-as-effect theory: The linguistic semantics of emotional vs. cognitive dysregulation.*); edited letters and abstract and reordered opening letter sequence
24. 2020-11-17a, b: Added process flow diagrams from Gross, Beck, Segal, and Greenberger; rewrote letters
25. 2020-11-18a: Rewrote letters; changed letter order; added Wikipedia discussion of emotions; edited cognitive-emotional process flow chart
26. 2020-19a: Edited cognitive-emotional process flow chart; reordered abstract and chart; switched reference for “school to prison pipeline” from BBC to LDF, 2018
27. 2020-12-09a: In “*The greatness of the human life experience*” replaced “evolved biofeedback mechanism” with “emotion”
28. 2020-12-11a: Modified cognitive-emotional process flow chart; modified emotions-as-effect statement to include EMFs
29. 2021-02-05a: General editing; updated (Jackson, 2020) to (Jackson, 2021); replaced emotional biofeedback mechanism with cognitive-emotional biofeedback mechanism
30. 2021-03-04a: Added letter “*The Great Debate: Emotional Dysregulation vs. Cognitive Dysregulation*”
31. 2021-03-23a, b: Added to letter “*The Great Debate*”, Warning 3
32. 2021-03-24a: Edited Warning 3
33. 2021-03-30a: Added some quotes to frontmatter
34. 2021-05-05a: Incorporated edits from AJE
35. 2021-05-06a: Reformatted entire document; eliminated letters and incorporated them into the body of the document; moved most quotes into body; developed, reordered, edited and added to “warnings”
36. 2021-05-07a: Updated Figure 5, Cognitive-Emotional Process Flow Chart; corrected some figure reference numbers; edited table of contents page numbers
37. 2021-05-14a, b: Incorporated new edits from AJE; general review
38. 2021-06-15a, b: Added Warning 6 to letter “*The Great Debate*”; added “behaviors” to Cognitive-Emotional Process Flow Chart; expanded cognitive-emotional re-processing

Revisions

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39. 2021-06-16a, b: Rewrote beginning paragraph of “Defining Emotion as an Effect That Accentuates Behavior”; replaced “reflexive behavior” with “self-indulgent behavior” in Cognitive-Emotional Process Flow Chart; added Section: The Cognitive-Emotional Process Flow
 40. 2021-06-17a: Added “Author’s Note” to section “Cognitive-Emotional Process Flow” to help clarify the distinction between re-processed behavior and self-indulgent behavior.
 41. 2021-06-18a: Removed behaviors from Process Flow Chart; Renamed chart Cognitive-Emotional Re-Processing...”; Added a “Simplified Cognitive-Emotional Re-Processing Flow Chart” to include behavior; rearranged sections; modified “Author’s Note” on self-indulgent behavior
 42. 2021-06-18b: Changed reprocess to re-process; edited figure 6; added bibliography of author’s publications, cover photo description
 43. 2021-06-26a, b: Modified figure 6; added entertainment mode and re-processing mode of cognitive-emotional behavior to section “Success in Education”; some sentence structure editing
 44. 2021-07-02a: Added cognitive-emotional development to re-processing diagrams; edited Item 3 in Synopsis
 45. 2021-07-06a: Changed from “modulate” to “re-process” cognitive activities
 46. 2021-07-08a: Abstract: reworded the causal nature of emotions in human behavior by way of cognitive processing/re-processing
 47. 2021-07-18a: Incorporated engineering process control theory and closed-loop process control as integral to emotions-as-effect theory; added references Palm, W. (2014) and Ogata, K. (2010); added new figure 1 and re-numbered following figures
 48. 2021-07-23a, b: Added references: Marken, R.S., (2020); Powers, W.T., (2016); Mansell, W., Carey, T.A., Tai, S.J. (2013); corrected table of contents page numbering; added emotional guidance/feedback and cognitive reprocessing to abstract
 49. 2021-07-29a, b: Changed title to include Emotional Control Theory; adjusted text accordingly; further clarified the linguistic semantics of “emotional control”; changed “aha” date to late 1993

Revisions

50. 2021-08-12a: Updated simplified cognitive-emotional (re-) processing flow charts (figure 1 and figure 7)
51. 2021-08-23a: Included “psychological and pharmaceutical therapy” and “health and literary education” in abstract; corrected spelling of health; replaced “wealth” and “prosperity” with the more general and inclusive word “success”
52. 2021-08-27a, b, c: Added “Authors’ (of all genres) failure...” to Section: Emotions as Effect Theory; added to “How long...”; also added biochemical and physiological signatures
53. 2021-09-08a: Added to Section: “Emotions-as-Effect and Emotional Control Theory: The Linguistic Semantics of Emotional vs. Cognitive Dysregulation” emotions are felt...

The greatness of the human life experience emerges from the flames of individual desire arising out of hell's fiery conflicts on earth.

Intention is forged in these fires. Emotion aligns our journey with these new intentions. Each succeeding generation will have its own mountains to climb and waters to cross with its own stars to navigate towards. Intent is that guiding star, and it is our emotions that perceive its light. The more joyous the feeling, the more harmonious and powerful the wonders revealed through life's journey.



Andrew O. Jackson suffered from psychotic mania and suicidal depression and was in and out of mental hospitals from 1979-1996. Once after another “blackout” period, he “awoke” in a mental ward and wondered how he got there this time. The nurse said he went up to a police car and told them that his friend needed help. His “friend” was a trash can. Another time he “awoke” with a rope in his hand ready to put an end to this torturous life when a voice asked him, “Can you go on?” “They” wanted him to continue this existence a while longer. He replied, “Yes” and got himself to a hospital.

Late in 1993, in a moment of inspiration that has now led to his emotions-as-effect theory, he began a self-directed healing program using his emotions as feedback for his biochemical, neurological, and physiological state of being. After a couple more psychotic episodes – one that landed him in the El Paso county jail and led to a divorce from his first wife – and after seventeen years of therapists, psychologists, and psychiatrists, he no longer needed the benefits of their assistance. He has been medication free and without disassociation, depression, or mania episodes since 1996.

Since 2005, he has been writing to academics around the world advancing a new emotional paradigm that defines cognition as causal to and emotions as an effect of biochemical, neurological, and physiological states of being. Emotions, instead of being regulated by cognitive behavior as current psychological academia prescribes, have evolved to guide cognitive behavior for the health, well-being, and prosperity of the individual.

He has an MS in Technology Education and an MS in Management Technology from the University of Wisconsin – Stout. He was a high school shop teacher, a college CAD (computer aided design) instructor, a guest instructor in China teaching quality and inventory management, and a quality manager at an OEM (original equipment manufacturer). He is now happily married and retired from mechanical engineering, spending his summers sailing and winters alpine skiing.