

A Cognitive Hierarchy of Wholes:
Expanding on the Biopsychosocial Model

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Abstract

The biopsychosocial model, as proposed by George Engel, models trajectories of biological and social wholes. Biologically, the causal chain contains molecule, organelle, cell, tissue, organ (system), nerves (system) and person. Socially, this person participates in two-person interactions, family, community, culture, society and biosphere. However, the psychological axis of the person is reduced to “experience and behavior”. This article expands on the biopsychosocial model in the psychological dimension. It demonstrates levels of cognitive closure, comparing E. Tory Higgins’ theories that build upon each other. Drawing from a model of perception it develops a cognitive chain of subsequent wholes and shows how it can be used to fit psychological conditions with contemporary therapies, concluding with its soteriological limits.

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Beyond Regulatory Fit

First, there is self-discrepancy theory (SDT). If one's behavior does not match one's ideals, then there is depression. If it does not match one's oughts, there is anxiety (Higgins, 1987). Second, there is regulatory focus theory (RFT). One either has a tendency to promote goals (the ideal axis), with joy in the success case, and depression in the event of stand-still. Or one has a tendency to prevent failure (the ought axis), with a comfortable feeling in the positive case, and anxiety if one closes in to undesired states (Higgins, 1997). Third, there is regulatory fit. People are supposed to feel better about actions and decisions that match their regulatory focus. So if a person is in goal oriented promotion focus and an idea is presented in promotional terms, that person is said to spend more effort and feel better about choosing that alternative. The same applies to prevention focus (Higgins, 2000).

Thus, RFT is built upon self-discrepancies. Regulatory focus is a developmental trajectory of self-discrepancy that arises from cognitive closure. Likewise, regulatory fit appears from cognitive closure on regulatory focus. So what happens when regulatory fit is bracketed? A couple of questions can demonstrate the problem: What if one does not feel better about a decision, but feels better about feeling better in a decisional situation, i.e. one feels right about the regulatory fit that one is aware of? What if one feels bad about feeling better in a decisional situation, i.e. one is conscious of the decision (a rational situation) and about how one is feeling (an emotional state), but deliberately wants to separate the two, no matter whether there is regulatory fit or not? What if in one case one likes to conform to one's regulatory fit, and in other instances takes care to stay equanimous?

Maybe in one situation, where one feels right about a decision that is presented according to one's regulatory focus, one will stop and suddenly feel wrong for feeling right. One caught oneself exhibiting an emotional response in a rational situation and wants to eliminate the bias, voluntarily countering the associated emotion. Eric Berne's "games people

play” are not imaginable without this kind of cognitive closure, as “so-called ‘mature people’ are people who are able to keep the Adult in control most of the time” (Berne, 2010, “Structural Analysis”). This maturity corresponds to being able to transcend the conflicting subject-matter cognitively. Or if, for some reason, one is in an avoiding mood and presented ideas of racial bias, one may suddenly feel bad about the avoiding bias and counter it with a wave of sympathy. This behavior is common. The first example exhibits common sense for anybody who does not regularly want to be fooled by commercials. The second case is necessary to create worth-while societies.

As cognitively getting beyond phenomena seems to be an affair of daily cognitive life, the question arises whether there is extraordinary cognition, as human understanding significantly transcends concepts of self, leaving behind prior understanding. This cognitive loop can infinitely enter recursion by aware observation of prior cognition. Following perception, a cognitive hierarchy of wholes can be constructed.

1. *Sensation* (in eye, nose, ear, tongue, body) arises as awareness of awareness.
2. *Form* arises as sensation of sensations (shape, smell, sound, taste, touch, internal motions).
3. *Ideas* (thoughts) arise as forms of forms (items, scent, tone, food, affect).
4. *Mind* arises as idea of ideas (intelligence, the thinking thing).
5. *Identity* arises as mind of minds (types of thinkers).
6. *Person* arises as identity of identities (“being identities”).
7. *Actors* arise as persons of persons (cf. Maturana, 2004, “From being to doing”).
8. *Observers* arise as actors of actors.
9. *The One* arises as observer of observers.

Sensation. Sensation is directly brought by the senses. It is perceived by small children before they start to create form and ideas. As soon as forms and ideas arise, perceptual gravity shifts and incoming sensations are modulated by the concepts of

cognition. Sensation may be disturbed, e.g. in blind, deaf people or tinnitus. Sensation exerts influence on how the brain develops. Internal sensation is a prerequisite to recognizing one's emotions. If internal sensation is not well-developed, it should become therapies' first focus. Yoga uses postures (asanas) and breathing techniques to achieve better clarity of one's internal state.

Form. Form arises if people construct objects from the void. Form results from an act of distinction, where a mental boundary delineates an observed phenomenon. Form can be thought of as sensation of sensation, where sensation reflects back on itself thus creating phenomena that stabilize as matching patterns, i.e. intelligence. Experiments with LSD reported perception that is distorted at the level of form. The internal arising of forms can be observed in hypnagogic states, where fractal patterns that result from mental activity subsequently morph into shapes of higher integration. Trance techniques operate on the level of forms, trying to achieve a perception of one's mental contents that is prior to ideas. In synesthesia, forms of different senses are coupled.

Ideas. Ideas are forms of forms. When forms are cognitively comprehended, they are conceptualized as things, and subsequently assigned a name. When things are no longer objects of direct signaling, but can be handled as abstract concepts without the need to be present in one's field of perception, they have become communicable ideas. Ideas, if they reflect the realities of the world, are also called knowledge (Vygotsky, 1979, pp. 26-28). If there is no real-world counterpart, then it is called illusion. Ideas about the self or the world are necessary for psychological considerations. They are the basic building blocks of tool use and human understanding. However, they also possess problematic qualities. Emotions arise, when ideas are linked to internal states. Initially, affective states were triggered as a reflex to form. As soon as ideas are created, affect is also related to ideas, and the remembering of ideas produces affect. Ideas can either provide pleasant or unpleasant affect. The affective interpretation of different ideas is individually coined and dependent on context. Thus, all

psychological suffering arises from this form-idea connection. In Asian philosophies, affective states that solely arise from ideas with no direct trigger from sensation are also termed illusion (“maya”). This emotional link between form and idea produces the dissonances that Self-Discrepancy Theory elaborates on. Unfortunately, ideas can be combined with negative affective states that limit person’s behavioral contingencies, thus creating suffering. Emotions are defined to be short lived. If they persist to create a mood, they are reaffirmed by stories. Stories are sequences of ideas that are linked together. They stage a chain of emotions. Wrong ideas about phenomena are relevant for therapy. From false understanding of bodily phenomena, Panic Disorder, Somatic Symptom Disorder, and Illness Anxiety Disorder arise. Thus, right knowledge is a first step to psychological well-being.

Mind. The mind arises as idea of ideas. The self no longer is thrown from idea to idea but becomes a thinker, an intelligent being capable of thought. The mind’s contents are ideas. Thinking can either be disorganized or highly integrated. Either logic or associative thinking prevails. According to Maruyama’s taxonomy of mindscapes, four basic styles of thinking can be characterized as hierarchical, independent-event, homeostatic causal loop and morphogenetic causal loop. Mindscapes influence the way in which people perceive the world, whether they think in categories of status or emphasize dynamic action or if they cherish or condemn change (Maruyama, 1980). Dependent on one’s epistemological style discrepancies between own understanding and real-world phenomena can arise. Peoples’ conditioning lives within the mind. Thus, the dynamic structure of the mind shapes their cognitive experience and what types of stories occupy their thinking. Depression and Anxiety Disorders result from attachment the mind’s up and down of stories. Behaviorism took its foundation in the patterns of the mind. Neuro-Linguistic Programming is a reductionist attempt at rewiring the mind. Suggestive methods like hypnotherapy try to inject new patterns of thinking into the minds of patients. The Cognitive Hierarchy suggests that hypnosis will

only work on people who cannot transcend their mind, and probably will not be successful on people who identify beyond it.

Identity. Identity is created as mind of minds. The self no longer only identifies as a thinker, but several types of thinking compete against each other. People may identify differently dependent on their current context. Discrepancies can arise from identification if one's environment presents situations that do not resonate with one's identification. From biological dissonances, identity disorders may arise. Regulatory Focus forms from attempts to stabilize different identities. Watkin's Ego-state therapy operates on identities, using group strategies applied to mental constructions. The self is thought to switch between identities its normal moment to moment function. Problems arise if these states lose communicational contact with each other, leading to dissociative disorders. (Emmerson, 1999)

Person. If identities are identified with, a person is created. The person integrates several subsequent acts of identification. If this integration fails, a variety of disorders arises, for example, obsessive-compulsive or borderline personality disorder, where ego-states alternate that are substantially separate and are accompanied with intense emotional content. As this person takes part in social interaction, it intersects with the biosocial axis, giving rise to paranoid, schizoid, dissocial, histrionic and dependent disorders. Regulatory fit occurs as a phenomenon of persons, where social stimuli are experienced as consonant or dissonant to one's integration of identities.

Actor. The concept of person is transcended by acting. An actor is a person of persons, impersonating different persons. At this stage, life is no longer experienced as exclusively serious but at times becomes a game. Compare Eric Berne's classic "Games People Play" (2010). The term stems from Latin "persona", the mask of an actor. Actors are distinguished from roles that define participation on the social axis, while on the contrary psychological construction follows the sequence of identity, person, and actor. With regard to actors, one can elaborate on people's tendency to take everything serious (be rooted as a

person), or how easily they are able to transcend the person concept, assuming perspective of others, and different valid perspectives for themselves (thinking in alternatives). Altruism and empathy will substantially improve after cognitive construction of actors. The easier this perspective on self is assumed and can be stabilized, the more likely CBT will be successful in changing behavior.

Observer. The step from actor to observer is more delicate and likely most important to attain peace of mind. It corresponds to acceptance and commitment therapy's (ACT) principle of defusion (Harris, 2009, p. 9). If one is acting to be an actor, one is no longer acting, but somebody else is doing the acting, and the self is only pretending to act. It separates the self from the body-mind complex. One becomes an observer of actions that are performed by the body, an observer of ideas that are thought by the mind, an observer of identities that are assumed by the person, and an actor of persons that occur in observation. First, one may observe one's body's inner sensations (affect). Once one is an observer of affect, one does no longer identify with it and emotions lose their pull. Then one can observe ideas. As an observer of ideas, the notion of "I" apparently exists separate from the ideas. The concept of control breaks altogether if thoughts are produced by the mind, not oneself, as the mind produces ideas as long as there is external or self-stimulus. This mental chatter is not controllable by the self. Trying to control mental chatter is reason for dissonance that can be resolved by identifying the self with an observer. Similarly, experience and actions are no longer exhausting. One only provides an initial spark of volition, and the body carries out the movement while the observer is only watching. Only the body can become exhausted. This inner detachment which ACT calls defusion is known as Pratyahara in Raja Yoga. The observer perspective plays a crucial role in constructivism.

The One. Approaching the One is a matter of soteriological debate and belief systems enter the scene. The One is an explanatory principle. It arises on observing observation and the insight that the ultimate observer itself cannot be observed, but it simply is. It indefinitely

produces notions of observers by re-entrance into the one, but itself is formless and beyond the grip of cognition. The only content of observation appears to be constant change of all phenomena within the chain of perception. Once firmly established as an observer, it depends on the school one follows how to proceed. ACT characterizes the One as self-as-context. In the above hierarchy, the author would prefer self-as-form-of-forms or non-self. The term is avoided due to its abstract nature. A widespread term also used by followers of Advaita-Vedanta is “pure consciousness”. Following Yoga, then that observer of observers is an instance of an eternal soul. In Taoism, unqualified change is the real, eternal Tao, and being an observer is "wu wei", doing without doing. If one follows Buddhism, one better stops asking unanswerable questions, which is an elegant way of denoting a final non-penetrable explanatory principle. In monotheistic terms, it is the closest experience of God one will ever achieve. However, if one personifies a God that one is separate from, then the final step is not taken to drop into the center of observation, and thus into the now.

Conclusion

Each of the above steps means to lift the attention of a person to the next level of cognitive closure. Once a level has been opened, attention can be directed back to phenomena of prior construction by concentration and is re-integrated into the whole by meditation. These processes may be facilitated or complicated by other mental factors or substance use. In therapy and counseling situations, one first needs to identify on what level the problem of a person is located, so one can explain and guide his transition to transcend the context of the dissonance and thus empower him. If somebody has a problem on the idea level (knowledge) and one tries to solve it on the identification level, the attempt is missing the point and it most likely will not enable self-sustained remedy of dissonances. Likewise, if a person who identifies as observer is confronted with regulatory focus or hypnotherapy, she will likely be alienated as she operates in a higher, cognitive construction. If defusion and subsequent acceptance are the goals, e.g. in ACT or mindfulness meditation, an ideal path constructs all

prior stages first. Although some schools promote a fast-track to detachment, relapses to prior stages will likely not be properly realized and handled if one has not familiarized with them by earlier experience.

This article has introduced a subsequently constructed cognitive hierarchy of wholes. It has shown the importance of cognitive closure, progressing in revolutionary stages of extraordinary cognition. Each stage has been discussed in terms of psychological conditions, and a connection has been made to contemporary therapies. This essay tries to open new perspectives to enable further research on mental states with respect to applicable therapies and understands itself as an ordered guide to think about cognitive phenomena.

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