

BELIEF SYSTEMS AND MENTAL SETS

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A belief system is a network of proposition comprised of what we consider to be true or factual about reality. Each of us has a vast network of belief systems that act as a scaffold to help us make sense of the world around us. As we encounter new data we use this network to perceive, interpret, analyze, and organize this data. Our belief systems also act as filters to eliminate data that does not correlated with our existing constructs. In this sense, our beliefs can limit thinking and learning (Harman & Rheingold, 1984). Below are described three different levels of belief systems, each successively harder to access and more resistant to change (Sisk & Torrance, 2001).

Level One - Knowledge

Level One contains our knowledge constructs. These are that what is addressed in traditional education. Change here occurs through assimilation and accommodation and is relatively easy and data-friendly. Assimilation occurs when current schemata or mental constructs are used to interpret and process new data or experiences (Piaget, 1983). When these constructs are found to be inadequate, accommodation is used to revise or rebuild new ones. At this level there is little resistance to new data as long as they support Level Two beliefs.

Level Two - Personal and Cultural Paradigms

Level Two contains our personal and cultural paradigms. Included here might be our philosophical views; our cultural and religious values; and our deeper assumptions about the purposes of individuals, institutions, and society, all of which are used to help us interpret the world we experience and to prioritize our resources. We do not address these beliefs directly in our educational systems, however, they are clearly expressed in: (a) the kinds of things that are valued; (b) the allocation of resources; (c) curriculums and the type of information that is presented to students; (d) the type of data that are measured and reported in what we call assessment, (e) the accomplishments that are rewarded; (f) hierarchical structures and the amount of empowerment given to teachers and students; and (g) educational models and philosophies.

Change at this level is resisted; however, when it takes place, it begins with a state of dysynchrony. This is a perceived difference between ideal and real states (Silverman, 1993). Here one receives new data in the form of experiences or insights only to discover that these data do not correspond with existing personal and cultural paradigms. To continue to receive this data while maintaining old structures creates disequilibrium and internal disorder or cognitive dissonance. For growth of any kind there must be a disintegration of the old belief systems so that new ones can be built to accommodate the new data. The time between structures is a time of disequilibrium often resulting in anxiety or depression. This resembles Dabrowski's (1964) theory of positive disintegration which states that advanced development requires a breakdown (or a disintegration) of existing psychological structures in order to form higher, more evolved structures.

Level Three - Metaphysical Paradigms

Level Three contains our basic paradigmatic structures related to the nature of reality or our metaphysical perspectives. These include our fundamental assumptions about both the phenomenal reality of space, time and matter; as well as the trans-phenomenal or transcendental reality described by mystics, shamans, prophets, poets, and quantum physicists. Contained here

also are our most essential religious or spiritual beliefs. One’s metaphysical perspective greatly impacts the type of data that is perceived and processed and is extremely resistant to change.

When change does occur at this level it brings about a whole new way of seeing or visioning the world. In many cultural traditions people engage in a vision quest in order to have such a change. If successful, the quest causes them re-vise or re-vision their world view. This revision seldom happens instantaneously; instead, it is a process that occurs after a series of successive stages which include preparation, incubation, insight, and verification. These are also the steps described in the Wallas model of creativity (Wallas, 1926), a process similar to that of enlightenment.

Beliefs About Belief Systems

I have expanded on Harman’s (1998) three levels of knowledge (Figure 1) in order to show some of the possible variations in depth at each level. We all like to think that we are objective, rational beings who come to conclusions based solely on data, however, as we move higher in the levels of belief systems and deeper at each level, our beliefs become increasingly data-resistant. At these higher levels, our view of reality is more apt to define what is relevant and determine which data gets processed.

Figure 1 Levels of belief systems

<p>Level One - Knowledge</p>	<p>Assimilated facts: Basic knowledge about physical reality and the way things work. New knowledge fits within existing knowledge structures.</p> <p>-----</p> <p>Accommodated structures: Knowledge structures based on general tendencies. New knowledge that does not fit is used to revise existing structures or create new ones.</p>
<p>Level Two - Personal and Cultural Paradigms</p>	<p>Personal values and related organizing structures: Beliefs based on a set of personal values.</p> <p>-----</p> <p>Cultural values and related organizing structures: Beliefs based on culture-based values.</p> <p>-----</p> <p>Psychological structures and sense of self: Beliefs about and how we define ourselves.</p> <p>-----</p> <p>Values-based intellectual paradigms: Primary mode of thinking and organizing knowledge based on our values and perspectives.</p> <p>-----</p> <p>Personal religious/philosophical values and organizing structures: Religious or philosophical beliefs based on a set of personal world view.</p> <p>-----</p> <p>Cultural or institutional religious/philosophical values and organizing structures: Religious or philosophical beliefs based on a set of cultural or institutional world view.</p>
<p>Level Three - Metaphysical Paradigms</p>	<p>Basic religious/philosophical assumptions: Beliefs about humanity’s purpose and place in the cosmos, and the meaning, of our existence.</p> <p>-----</p> <p>Nature of reality: Beliefs about what is real and possible.</p>

Summary of Key Ideas

- A belief system is a network of proposition comprised of what we consider to be true or factual about reality.
- What we believe affects what we perceive and are able to learn.
- Higher level belief are more data-resistant than lower level beliefs.

Related Videos

Part 1: Belief Systems and Mental Sets

<https://www.youtube.com/watch?v=q9XEgDsYkyc>

Part 2: Levels of Knowledge

<https://www.youtube.com/watch?v=x-lvYl48Wys>

Part 3: Beliefs about Belief Systems and Mental Sets

<https://www.youtube.com/watch?v=ICTqL8DtNUM>

References

- Eggen P. & Kauchak, D. *Educational psychology: Windows on classrooms* (7th ed.). Upper Saddle River, NJ: Pearson
- Goldstein, E.B. (2008). *Cognitive psychology* (2nd ed.) Belmont, CA: Thomson Higher Education
- Dabrowski, K. (1964). *Positive disintegration*. Boston: Little, Brown.
- Harman, W. and Rheingold, H. (1984). *Higher creativity: Liberating the unconscious for breakthrough insights*. Los Angeles, CA: Tarcher.
- Harman, W. (1998). *Global mind change* (2nd ed). San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Piaget, J. (1983). Piaget's theory. In P. Mussen (Ed.), *Handbook of child psychology* (4th ed., Vol. 1). New York: Wiley.
- Silverman, L.K. (1993). The gifted individual. In L.K. Silverman (Ed.) *Counseling the gifted and talented*. Denver, CO: Love Publishing Company, pp. 3-28.
- Sisk, D. and Torrance, E.P. (2001). *Spiritual intelligence: Developing higher consciousness*. Buffalo, NY: Creative Education Foundation Press.
- Sternberg, R.J. & Williams, W.M. (2009). *Educational psychology* (2nd ed). Boston, MA: Pearson.
- Wallas, G. (1926). *The art of thought*. New York: Harcourt, Brace, and World.