

RUNNING HEAD: CRITICAL THINKING- A PERSONAL PERSPECTIVE

Critical Thinking- Applications to Leadership and Scholarship

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Abstract

This document offers an analysis of the differing definitions of critical thinking through comparison and contrast of the influence of cognitive, emotional and logical skills in the thinking process. Some theorists define critical thinking based on traditional approaches of logic thinking, whereas others use newer concepts that incorporate emotions as augmenting factors.

The conceptual framework will provide the springboard to evaluate critical thinking abilities as performed by this author, an economist and university professor, doctoral learner at University of Phoenix.

Critical Thinking- A Personal Response Assignment

Doing business requires making critical decisions and solving problems on a daily basis, therefore the ability to perform objective evaluations of information to support an action is highly regarded (Hemming, 2000). Critical thinking provides leaders, scholars and practitioners in business with skills to reasonably evaluate their past experiences for application in future plans (Schwarze & Lape, 2001).

While most authors agree on the importance of critical thinking across all fields (Winn, 2004) they differ in their views of the role of cognitive skills, logical thinking and emotionality in the process. In this context of broad and differing opinions, this researcher, a doctoral learner at University of Phoenix will evaluate her ability to think critically in her role as professor, scholar in business and economics and as a leader in Nevada, United States.

Ruggiero (2004) and Kirby and Goodpaster (2002) identify two categories of thinking: creative and critical, where creativity is the generator of thoughts that critical thinking processes. Astleitner (2002) defines critical thinking as “higher-order thinking skill which mainly consists of evaluating arguments or propositions and making judgments that can guide the development of beliefs and taking action” (p. 2).

Brookfield (1987, as cited by Mottola & Murphy) offers a simple conceptualization of critical thinking through four components:

- a) Identifying and challenging assumptions, b) becoming aware of the importance of context in creative meaning, c) imagining and exploring alternatives and d) reflective skepticism.

Critical thinkers use logical thinking and efficient argumentation to challenge assumptions (Duplass & Ziedler, 2002) tracking inconsistencies in reasoning -bias and logical

fallacies- in their own and others' statements (Lundquist, 1999). *Uncritical thinkers* are less conscientious than critical thinkers, and tend to either embrace opinions without proper evaluation, or limit challenging ideas because of their egocentrism and impatience to deal with complex topics (Ruggiero, 2004).

A hallmark of critical thinkers is their openness and their disposition to deal with complexity (Ruggiero, 2004; Winn, 2004); searching for alternatives that are not readily available, being willing to make errors and try again because their goal is not to have absolute right answers (Ruggiero, 2004; Lundquist, 1999).

While these definitions are shared by most authors, there are newer views of critical thinking that incorporate environmental interactions (Cheung, Rudowicz, Kwan & Yue, 2002; Lunney, 2003), motivational dispositions and ideological beliefs (Hemming, 2000). However, some critical thinkers frequently look upon *emotionality* and *enculturation* as barriers to thinking and are cautionary about them (Kirby & Goodpaster, 2002).

Cognitive development and critical thinking

Cognitive development theory proposes that cognitive abilities (e.g. interpretation, analysis, evaluation, inference, and deduction) improve academic performance and critical thinking skills (Cheung et al., 2002). Individuals use these abilities with different intensity depending on their cognitive developmental stage (Hemming, 2000).

Grosslambert and Mahon (2006) characterize the *formal intelligence period* –13 years old and above- by the ability of formulating hypotheses, an important skill of critical thinkers. In an advanced stage called *dialogical reasoning* (Hemming, 2000) individuals are able to evaluate different perspectives with openness, another characteristic of critical thinking, which can be strengthened through practice and training (Braun, 2004; Ruggiero, 2004; Winn, 2004).

This author of this paper applies the knowledge accrued for more than 15 years as a professor and economic consultant to improve her critical thinking skills of analysis, inference and deduction. These skills are applied in problem solving in real life or in simulated academic scenarios as well as in learning about new field developments. This new knowledge assists in diminishing the pervasive effects of routine activities in her faculty role (Mottola & Murphy, 2001).

This author uses dialectic reasoning with colleagues, listens to new perspectives that augment her knowledge-base and tests the strength of her statements. As scholar in the early stages of her dissertation journey, she understands the need to attend to new evidence and revisit opinions to stay abreast of new literature that would contribute to her future work (Cone & Foster, 2001).

Logic and critical thinking

Logical argumentation is a “line of reasoning that supports a judgment” (Ruggiero, 2004, p. 75) an important component of critical thinking. Being rational (logical) works in most cases because individuals make better decisions and create good relationships with others (Ruggiero, 2004).

Individuals may use inductive or deductive thinking in an argument. Deductive thinking begins with two or more premises and results in a conclusion that *must* follow from those premises. Inductive thinking uses observations about *some* premises and draws conclusions for a universe (Kirby & Goodpaster, 2002). Probability theory plays a main role in inductive thinking, because there is not absolute certainty that the conclusion will follow the observation.

Argumentation is more effective when individuals use critical thinking to distinguish the relevance and validity in the statements and avoid flawed ideas or fallacies. Fallacies are

“erroneous reasoning patterns” (Schwarze & Lape, 2001, p. 232) categorized differently by theorists cited in this work.

Duplass and Ziedler (2002) acknowledge seven most common fallacies, but other authors cite up to 33. See Table 1.

Table 1

Comparative of categorization of fallacies by different critical thinking scholars

Authors	# fallacies	# categories	Category names
Duplass and Ziedler (2002)	7	n/a	Ad hominem, appeal to authority, appeal to popularity, circular reasoning, false dilemma, equivocation, inadequate sampling.
Kirby and Goodpaster (2002)	33	4	Errors of deductive, inductive reasoning, other reasoning, of emotional distress
Ruggiero (2004)	25	4	Errors in perspective, in procedure, in expression, of reaction
Schwarze and Lape (2001)	15	3	Fallacies of Irrelevance, faulty generalization, emotional manipulation.

Duplass, J.A. & Ziedler, D.L. (2002, September). Critical thinking and logical argument 66(5), M10.

Kirby, G.R. & Goodpaster, J.R. (2002). *Thinking* (3rd. Ed.) Upper Saddle River, N.J.: Prentice Hall.

Ruggiero, V.R. (2004). *Beyond feelings: A guide to critical thinking* (7th ed.) Boston: McGraw Hill.

Schwarze, S. & Lape, H. (2001). *Thinking Socratically: Critical thinking about everyday issues*. Upper Saddle River, NJ: Prentice Hall.

This researcher integrates the discussion of the fallacy of “*inadequate sampling*” in statistics, and *fallacy of composition* in economics courses. She is aware that by using inductive reasoning in her consulting and scholarly work, her findings are more likely to be challenged (Ruggiero, 2004) therefore she uses critical thinking to detect errors in perspective that could hinder the validity of her work.

Emotionality and critical thinking

Acting with reason makes relationships with others easier, because discussions are based in sound arguments (Schwarze & Lape, 2001). Part of being rational is both being able to control

emotions of anger, passion and depression and avoiding an extreme rationalization defined by Kirby and Goodpaster (2002) as “lying to oneself about the real reasons for behaviors and feelings” (p. 231).

Cognitive dissonance is an unpleasant condition that alters thinking, derived from inconsistent decisions that require justification (Kirby & Goodpaster, 2002). When individuals are emotionally involved in the inconsistency, they will usually try to rationalize their decision as a mechanism of defense against guilt.

Stress is another emotional factor that affects thinking (Kirby & Goodpaster, 2002). Distressed individuals are more prone to make bad decisions generating more stress. Distress may also result in *fallacies of emotional manipulation*, where language charged with emotions is used to disqualify or alter rational statements (Schwarze & Lape, 2001; Kirby & Goodpaster, 2002).

Despite these risks, new views propose the integration of emotions in the assessment of the effectiveness of critical thinking. According to Hemming (2000) caring in education generates a connection with the learner stimulating interest for critical thoughts. Caring is also expressed by a speaker towards his/her audience, when using the proper tone of speech to captivate and communicate (Kirby & Goodpaster, 2002).

This author exercises caring, both in the work with her students and clients, discussing topics that they can relate to and feel more actively engaged. As member of different academic boards (e.g. hiring committees, faculty senate) she strives to introduce objectivity in her decisions to rule with fairness.

This researcher has discussed the concept of *cognitive dissonance* and its effect in buyer's remorse. She has experienced the uncomfortable feeling of cognitive dissonance as a

consumer and half the time she has opted for rationalizing her purchases, instead of changing her behavior and walking away.

Self-awareness and balance help her identify when subjectivity gets in the middle of a sound judgment (Hemming, 2000; Winn, 2004). This author is aware that in order to be a successful leader she needs to balance her personal, professional and scholarly life, avoid stress and achieve personal harmony.

Conclusion

Critical thinking is a skill that provides business practitioners with the ability to make rational decisions and solve problems using objective and sound reasoning. A comparison and contrast of differing definitions about critical thinking showed that despite its application across disciplines, cognitive development, logical thinking, ideological beliefs and emotional disposition influence thinking skills.

This researcher, a doctoral learner at University of Phoenix, used this framework to evaluate the positive effect of her abilities as a critical thinker, based on an assessment of her cognitive level, her use of inductive reasoning in her role as a statistics professor and her caring teaching style. Her efforts to balance these different roles are derived of her application of critical thinking.

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