

# Critical Thinking and Leadership: Can We Escape Modern Circe's Spells in Nursing?

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## Abstract

The earliest records of critical thinking in Western thought are the teachings of Socrates, as recorded by Plato in the form of the famous dialogues containing Socratic questioning. How would a hypothetical discussion on critical thinking and leadership unfold between these two scholars? Socrates posing questions and Aristotle answering them? And what would this discussion mean to healthcare professionals? Let us find out.

## What Is Critical Thinking?

Although there are numerous definitions (Moore 2013), critical thinking is more than just the mere accumulation of facts and knowledge, as Charles Dickens says in the first sentence of his novel *Hard Times*: “Now, what I want is, Facts” (Dickens 1854: 11). Critical thinking includes reasoning or logic, judgment, metacognition, reflection and questioning (Halpern 2014). Critical thinking is an energetic process that aims to form a judgment through the objective analysis and evaluation of an issue and is widely accepted to be necessary for everyone (including leaders).

## Why Is Critical Thinking Necessary for Everyone?

In psychology and cognitive science, human judgment, decision making and choice reflect autonomy (even for children), a characteristic that is viewed as the

ability to decide – independent of reward and punishment – between right and wrong in the moral realm and between truth and falsehood in the intellectual realm (Kamii 1991). This is an important step in the normal course of cognitive developmental in humans and helps each individual (as well as groups) survive by making “good” decisions linked to reality and the facts.

### **Are All Thinkers Critically Thinking and Acting?**

Unfortunately, there are numerous examples of leaders in human history and in fictional works of art (literature, drama and poetry) who have failed to reach effective decisions by not following the sequence of steps involved in critical thinking and the decision-making process. The steps are as follows: classifying the problem; defining the problem; specifying the answer to the problem; deciding what is “right,” rather than what is acceptable, to meet the boundary conditions; building into the decision the action to carry it out; and testing the validity and effectiveness of the decision against the actual course of events (Drucker 1967). Not everyone always follows these steps toward critical thinking and acting, which begs the following questions: Did these individuals not think in a rational way? Were their decisions not informed by real evidence? What went wrong?

### **Is Critical Thinking Acquired by Teaching or by Practice or by Neither Teaching Nor Practice? Does it Come to Humans by Nature or in Some Other Way?**

We all have the seeds of critical thinking in us. Therefore, the potential for critical thinking is innate, but the actual ability is acquired. It is possible not only to teach critical thinking skills in a specific domain but also to transfer it across domains. So, critical thinking can be seen as a general skill that can be developed through consistent and conscious effort (McPeck 2018).

### **Is Critical Thinking Critical in Leadership?**

According to a report entitled *The Future of Jobs*, published by the World Economic Forum (2016), critical thinking, along with complex problem solving and creativity, represented a growing part of the core skill requirements in many industries.

### **What Are the Consequences of Viewing Critical Thinking as a Core Skill?**

A rather obvious consequence of viewing critical thinking as an essential skill in industries is the necessity to instill and foster a critical thinking mindset in these workplaces. In a world of growing uncertainty, one thing is certain: leaders must learn to question assumptions, adopt different perspectives, see potential and manage ambiguity (Datar et al. 2010). Questioning, interpreting and communicating in each step of planning as a leader in a world that is characterized by a wealth of information, coming from multiple sources of data, and forming a conclusion based on feedback and “real” input have been brought forward as a critical aspect of leadership.

### **Is Critical Thinking Possible for People Holding Leadership Positions in Different Fields (Healthcare, Business and Politics) Today?**

Critical thinking is essential for leaders. Why? So far, there are numerous examples of leaders navigating challenge after challenge while applying critical thinking (even when they do not know it). Of course, the current influence of post-truth (the tendency to regard objective facts as less influential in shaping opinion than appeals to emotion and personal belief) has an undeniable influence on human thought, but there are ways to face the modern obstacles via critical thinking (Levitin 2017).

### **Can You Give Me an Example of Modern Obstacles in Critical Thinking and How to Deal with Them?**

The twenty-first century is regarded as an Internet/information society, where virtual life predominates, and some of the most significant activities of the majority of the population are using, creating, distributing and manipulating information. In this society, an audience is always available to consume information, and many times this audience can be characterized as “vulnerable” to all sorts of biases and can be ready to reproduce said information without second thoughts. Nevertheless, there are ways to discern truth in the jungle of the persuasive rhetoric of fake news coming from social media posts, websites, statistics and influencers. Given that nowadays information dissemination may be based on popularity rather than accuracy (mainly through the Web), there are simple questions that can help everyone skeptically reflect on the information that is received. For example, questions about the source can thus be raised regarding the currency (“When was it published?” “Has it been updated?”); the relevance (“Does it relate to your needs?” “Who is the audience?”); the authority (“Who are the author and publisher?” “What are their credentials?”); the accuracy (“Is it reliable and truthful?” “Is it supported by evidence?”); and the purpose (“Why does this information exist?” “Is there a bias?”) (Blakeslee 2004). In addition, leaders should adopt modern technological advances. Artificial intelligence could serve leaders by providing them with reliable information (via data mining techniques, Bayesian inference and crowd signals) and thus assist them in detecting fake news from across the world.

### **Is Critical Thinking Different for Leaders Coming from Different Cultures?**

The importance of cultural diversity cannot be disregarded, especially in healthcare, as cultural contexts shape how we think, feel and act as individuals but also as members of smaller or larger groups (Giannouli 2017). Different critical thinking skills are preferred in different cultures. Although critical thinking skills can be applied by people throughout the world (Halpern and Sternberg 2020), specific culture-related factors (e.g., self-construal factors, regulatory mode and reported

self-efficacy) have been found to influence critical thinking in Western and Eastern cultures (Manalo et al. 2013).

### **How Can We Benefit from Cultural Differences in Thinking Styles?**

In the midst of a rapidly changing but interconnected world, there is a debate about whether critical thinking is understood as the same concept and taught in similar ways across different cultures. Although there are findings supporting possible differences (maybe due to differences in linguistics and social values between the East and the West) (Dong 2015; Rear 2017), the “other” approach should not be neglected. This could be the starting point in finding ways to improve our own critical thinking, finding the specific factors that create this claimed difference and trying to steer critical thinking education into a better and faster track worldwide.

### **Are Current Leaders Sufficiently Prepared to Exercise Critical Thinking?**

Higher education understands the need to develop critical thinkers (who may be the future leaders) in all scientific fields. However, it is generally believed that regardless of the changes made so far, educational systems have not lived up to the task consistently as there is a cross-cultural shared trend that shows that graduates are deficient in these skills and unprepared to think critically once in the workforce. Therefore, limited development of cognitive processing skills leads to less effective leaders (Flores et al. 2012).

### **Are There Ways to Improve Our Critical Thinking?**

As Albert Einstein said, “Education is not the learning of facts, but the training of the mind to think” (Goodreads 2021). Given that critical thinking is believed to take the form of skills that can be analyzed and taught as psychological mechanisms and procedures (Jenkins 2012; Kahneman 2011), the anatomy of the decision-making process should be part of not only basic studies but also continuing education and lifelong learning. Instructors should not only seek to teach how to spot, explain and surpass subtle and overt cognitive biases (Dobelli 2013) but also to assess critical thinking. Following this line, the possible differences in thinking styles between the East and the West could be a starting point for field research, with real-life problems emerging and being confronted in real environments.

Socrates emphasized that asking the right questions in a systematic way may lead us to the right answers. Therefore, our modern approach should include organized interdisciplinary programs spanning elementary and secondary schools and university and post-university programs, which will provide future leaders with up-to-date knowledge and skills to approach information, examine the available data and make the most appropriate decision when handling that information.

### **Are There Existing Approaches in Order to Develop, Expand and Retain Critical Thinking Skills?**

In order to develop, expand and retain critical thinking skills at the individual level, digital learning and web-based platforms should be used along with digital game-based learning. All of these could represent a modern means for cultivating critical thinking skills with the help of simulations of scenarios that future leaders may have to contend with in their future careers. But critical thinking is not applied in a world where no one else exists. Based on this, small teams and larger groups of people could learn through dialogic argumentative activities, which could be used in an interactive context.

### **What Lessons Have You Learned from Observing Leaders Who Have Exercised Good (or Bad) Judgment?**

Every leader, organization, situation and decision is characterized by relativists as a *sui generis* case study, but that does not mean that a “lesson” cannot be learned when leaders exercise “good” or “bad” judgment: all types of thinking, including critical, convergent, analytical, divergent and creative thinking, are important (as it is widely accepted that these factors play a key role in decision making). Therefore, we should not only experimentally and empirically study the contributing role of all of these influencing factors (without disregarding any of them) in judgments, but we should also try to find the “golden ratio” between them in our life and practice. In practical terms, this means that when examining cases of leaders who reached decisions that were seen as “bad” decisions, it is found that they made snap decisions based only on their intuition and influenced by their emotions (fast thinking). Their overall attitude toward their intuition(s) was found to be superior to logic (slow thinking) (Kahneman 2011). In addition to that, a “bad” decision can potentially trigger other “bad” decisions (when standing on the shoulders of our previous decisions), thus rendering it essential that leaders be prepared to stop the “series of unfortunate events” and be conscious and aware of what can be done to control it.

### **What Can We Do While Preparing the Future Generation of Leaders in Healthcare and Nursing?**

While developing the next generation of leaders in healthcare and especially in nursing, it will be necessary to demystify critical thinking based on a multicultural platform that borrows from academia, business, the arts and even history by developing critical thinking skills in practice, not only theoretically, and at the same time by empirically examining whether these efforts are achieving the desired effects (Bittner and Gravlin 2009; Maynard 1996; Park et al. 2012; Porter-O'Grady et al. 2005). This is a necessity not only for leaders but also the members of their teams (subordinates) and the general public. In this process of making critical thinking part of our everyday life, scientific research (quantitative and

qualitative), which is generally scarce, should accompany any teaching attempt by incorporating all new findings regarding the promotion of critical thinking.

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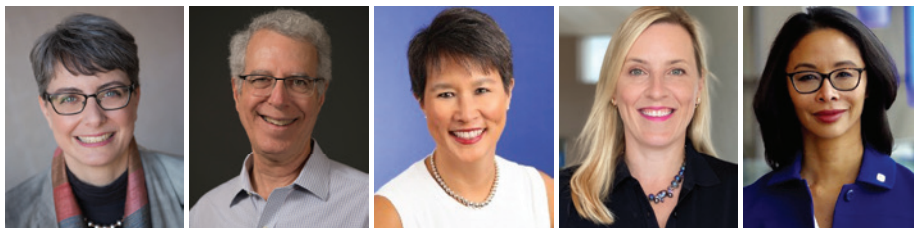
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