

**Name:** Susie Rearick

**Course:** D500, Introduction to Adult Education Theory

**Semester Enrolled:** Spring, 2015

**Document:** What is a Theory?

## **Caption Statement #1**

Artifact #1 is the first paper I wrote for this master's program. The class was D500, Introduction to Adult Education Theory, and the title of the paper was "What Is a Theory?" I have included this seemingly basic assignment because it shows where I was at the beginning of the program. I did not have a personal educational philosophy; in fact, I didn't really know there was such a thing. At this point, I was definitely an old dog who hadn't even entertained the idea of learning a new trick. Let me set the scene ...

I hadn't really been in a classroom – cyber or otherwise -- for over 30 years. That fact hit me hard as I stared at the empty computer screen awaiting my words of wisdom. What wisdom? What did I know about theories vs. philosophies? The paper needed to be 1,000 words. A thousand words??? I wasn't sure if I could write 100 words on a subject about which I knew so little at the time; and although I consider myself a fairly competent writer, academic composition is a style all its own. As if on cue, the doubting questions that had been on a low simmer since being accepted into the program began boiling over: Why had I wanted to earn this degree? Was I insane to think I could do this after Multiple Sclerosis had altered my brain matter for 20 years? Plus, I was 50 years old, aged enough to know better than to ensconce myself in academia for three years.

So I resorted to the emotional outlet that has served me not-so-well over the years: I burst out crying. I told my husband that I had experienced a temporary lapse of sanity when I applied for the program and if I dropped the class immediately, we would get most of our money back.

My husband, the proverbial pep-talker of the family, saved me that day, as he has countless times over the years. He reminded me of past writing successes and how this was the first paper. Even if I messed it up, I would have plenty of time to learn how to properly write in the required academic style. So I started writing ... and writing. Before long, I developed a rhythm. And with each documented quotation and statistic to support my opinions, my confidence grew. When I recently re-read the paper, I was actually surprised how coherent it sounded. On the other hand, if I wrote the paper today, I would include more reliable sources than websites to back my position. But, as Maya Angelou said, "When you know better, you do better." Self-efficacy (the faith in myself to finish the paper) along with an amazing husband allowed me to conquer this first obstacle.

When I received my grade – 100% -- I was beyond overjoyed. I will continue to fight my insecurities in future artifacts, but a little voice saying 'you can do this' grew just a tiny bit louder that day. This artifact is proof of learning that I can overcome a barrier, real or self-created, if I just believe.

**Artifact #1:**

## **What Is a Theory?**

**Susie P Rearick**

**Indiana University**

## What Is a Theory?

Defining what constitutes a theory requires moving beyond the layman's understanding of the term. To an average individual on the street, a theory is simply a guess or an instinct, even a gut feeling about the cause of a certain situation. A common synonym for the layman's definition of theory is the word hypothesis.

However, in the realm of science, including the behavioral sciences, the word theory is defined much differently. According to Monica Heger (2012), "a theory is a broad explanation of a phenomenon or phenomena that is testable, falsifiable and has multiple lines of evidence (paragraph 2)."

Another definition of theory as used in science comes from the University of California at Berkeley:

Theories ... are broad explanations for a wide range of phenomena. They are concise (i.e., generally don't have a long list of exceptions and special rules), coherent, systematic, predictive, and broadly applicable... For example, the theory of natural selection broadly applies to all populations with some form of inheritance, variation, and differential reproductive success — whether that population is composed of alpine butterflies, fruit flies on a tropical island, a new form of life discovered on Mars, or even bits in a computer's memory. This theory helps us understand a wide range of observations (from the rise of antibiotic-resistant bacteria to the physical match between pollinators and their preferred flowers), makes predictions in new situations (e.g., that treating AIDS patients with a cocktail of medications should slow the evolution of the virus), and has proven itself time and time again in thousands of experiments and observational studies" (paragraph 3).

After conducting research into the definition of the word, as used in the sciences, my conclusion is that a theory is an attempt to explain the reasons behind observable outcomes, substantiated with facts, research and data. Having a belief in the causes of an outcome is simply a feeling; for a belief to be a theory, in the scientific use of the word, those feelings must be supported by repeatable and objective data that can be tested by other observers. This broad definition of theory also remains valid in various applications.

My definition also includes the critical point that many theories are continually evolving and are always open to testing and errors. For example, in the theory of natural selection referenced above, if an antibiotic were developed that was resistant to all mutations, scientists would need to revisit the theory and conduct additional research.

A philosophy, on the other hand, is very different from theory. According to the Oxford dictionary (n.d.), philosophy is the “study of the [fundamental](#) nature of [knowledge](#), [reality](#), and [existence](#), especially when considered as an [academic discipline](#).” While theories as discussed above require substantiation, philosophies, by their very breadth, cannot be verified.

Philosophies are an umbrella under which many theories can reside. A philosophy is not something that can be easily proven, but the theories within that philosophical framework are subject to testing and, if needed, revision.

The theories within a philosophical framework are necessary so that the goals of the philosophy can be achieved. For example, some families have a philosophy that children should not be spanked as a form of discipline. While this is a worthwhile goal, the philosophy only becomes real when theories related to why corporal punishment is unhealthy and ineffective are examined. In addition, theories need to be developed to test alternative forms of discipline, to see

which actually work in real families. Author Gina Shaw (2013) has said the ‘time-out’ form of discipline has become a very popular technique, the theory being that children do not like spending time away from family activities and will improve behavior accordingly. On the other hand, the ‘time-in’ technique has recently been growing in popularity. Researcher Sara McGrath (2008) has claimed this form of discipline works on a different theory of behavior: “Time-in focuses on regaining peace between all concerned, rather than on right or wrong. It assumes that the undesired behavior feels unpleasant enough in itself without adding to that pain (paragraph 2).”

A family that embraces the philosophy of no spanking without delving into why spanking is ineffectual or cruel (and the long-term results of such a practice) and the theories of alternative discipline are quite possibly setting themselves up for parental failure if no discipline or consequences are enacted in response to misbehavior.

The relationship between theory and action relates to the very definition of the word: a theory is testable; it is data-driven; it is more than a guess. For example, exercise physiologists theorize that music can make work-outs more fun; this in turn will help participants exercise longer and more intensely (Karageorghis & Priest, 2008). But this theory means nothing without action: including providing overhead music in gyms, developing classes with motivating soundtracks and the subsequent research involving control groups -- the action that validates the theory. A theory must have relatable actions and practice to distinguish itself from philosophy.

In my opinion, theory is derived from practice. Without practice, which provides the necessary data to validate the theory or demand necessary revisions, a theory remains a static concept, not grounded in the rigors of scientific testing. Using the example of natural selection

once again, if Mendel had not conducted research on his pea plants (practice), he would not have been able to develop the theory beyond a vague and unproven hypothesis.

In summary, a philosophical framework is required to define desirable long-term goals. Within that philosophy, however, specific theories are needed and must be developed to bring the philosophy into the real world with actual applications. Action must be a part of this real world testing to ensure its reliability and long-term relevance. Finally, in my opinion, practice leads to theory in most situations, since a theory without testing and application remains very much like the hypothesis definition many of us think of when we hear the word theory used outside the realm of science.

## References

- Heger, M. (2012). What is a theory? *Life's Little Mysteries*. Retrieved from <http://www.livescience.com/32390-what-is-a-theory.html>
- Karageorghis, C. & Priest, D.L. (2008). Music in sport and exercise: An update on research and application. *The Sport Journal*. Retrieved from <http://thesportjournal.org/article/music-sport-and-exercise-update-research-and-application/>
- McGrath, S (2008). Time-In: gentler and more effective than time out. *Suite*. Retrieved from <https://suite.io/sara-mcgrath/tq5290>
- Philosophy (n.d.). In *Oxford Dictionary online*. Retrieved from [http://www.oxforddictionaries.com/us/definition/american\\_english/theory](http://www.oxforddictionaries.com/us/definition/american_english/theory)
- Shaw, G. (2013). Disciplining toddlers: Time in or time out? *WebMD* online. Retrieved from <http://www.webmd.com/parenting/features/disciplining-toddlers>
- University of California at Berkeley (n.d.). Understanding science: How science really works. Retrieved from [http://undsci.berkeley.edu/article/0\\_0\\_0/howscienceworks\\_19](http://undsci.berkeley.edu/article/0_0_0/howscienceworks_19)