## Historical case study analysis



## Wanda Hardigree

History provides vital information for future direction. There have been several case studies provided in industrial organizational psychology. James McKeen Cattell provided a crucial component to studies. A case study analysis provides influential components for future decisions in businesses and organizations. Cattell's studies lead the way for the development of industrial organizational psychology.

Cattell born in 1860 in America later became Wundt's student in Germany. He would receive his PhD in 1886. The time period in which Cattell began his psychological expedition was during the Great Schools Era. This time period consisted of several American psychologists studying overseas and then returning to practice in the United States. Intelligence studies were becoming a popular area during this time period.

Cattell contributed insight to other psychologist studies. "Cattell was the declared the first American to publish his dissertation, *Psychometric Investigation*" (James McKeen Cattell, 2013, pg. 1). Cattell gradually developed an appreciation of the potential importance of differential measurement from his discussions with Galton. Landy stated although his reaction-time experiments at Leipzig had involved such measurement, he had not placed any great emphasis on the phenomenon. (p. 93) The discussions amongst the two brought new ideas for both.

The continuation of Cattell's career leads him to giving lectures at different Universities. During these lectures the idea of mental testing was introduced. Landy (1993) described an article wrote by Cattell suggesting testing to

include sight, hearing, tasting, touching, smelling, temperature, time estimation, and memory. (p. 93) The time Cattell spent at Columbia University was useful in the future use quantitative methods in research studies.

Cattell (2013) was cited to believe experimental approaches were vital in future success:

I venture to maintain that the introduction of experiment and measurement into psychology has added directly and indirectly new subject-matter and methods, has set a higher standard of accuracy and objectivity, has made some part of the subject an applied science with useful applications, and enlarged the field and improved the methods of teaching psychology. In conclusion, I wish to urge that experiment in psychology has made its relations with the other science more intimate and productive of common good. (pg. 6).

The data collected at Columbia during Cattell's term ranged over a seven year period. The data collected was founded to have no meaning or correlations. This was a major defeat for Cattell. The lack of theory or reasoning behind the data collection was deemed the reasoning behind the failure. According to Koppes (2007) this failure of Cattell was a direct impact of the Psychological Corporation, which was put on the firm financial footings by Bingham, Paul Achilles, along with others. (p. 46) For example, when Cattell started his research there was no prediction of expectancy to know what questions he needed to answer. You can collect data immensely but knowing what to do with it leaves more questions than answers. As stated by

Koppes (2007) Cattell advocated individual differences, quantification, and objectivity; these beliefs which had an impact on the field. (p. 46) This began the decline in research testing for several years. Along came the Title VII Civil Rights of 1964 which brought new reasoning for the use of mind testing and began to increase again based on theory.

During World War One, Cattell lied dormant and worked on his publishing.

Once the war wrapped up, Cattell came out of hiding from his shame. He created The Psychological Corporation. Although he was President for a few years, most of the productive and influential produced work was from others. "The Psychological Corporation, published the Wechsler Intelligence Tests" (Parrott, 1997, pg. 15).

The Wechsler Intelligence Test is still being administered today. According to the article in *Wechsler Intelligence Test* (2014), in The Free Dictionary it states the purpose of the test:

The Wechsler Intelligence Scales for Children (regular, revised, and third edition) and Wechsler Preschool and Primary Scale of Intelligence are used as tools in school placement, in determining the presence of a learning disability or a developmental delay, in identifying giftedness, and in tracking intellectual development. The Wechsler Adult Intelligence Scales (regular and revised) are used to determine vocational ability, to assess adult intellectual ability in the classroom, and to determine organic deficits. Both adult and children's Wechsler scales are often included in neuropsychological testing to assess the brain function of individuals with neurological impairments.

Cattell's contribution to industrial organizational psychology would lean more toward the industrial side. The industrial component includes job analysis, training, job selection, performance, measurement scales and job placement. The idea of more quantitative data within studies benefits these categories of the industrial component. The measurement of the mind's abilities was another benefit reaping from Cattell's developments. Landy (1993) stated that Cattell was:

Committed to quantification. He was also a pioneer in recognizing the importance of individual differences. These two tendencies led inevitably to a heavy dependence on psychological testing for purposes of prediction. I/O is certainly characterized by this testing zeitgeist and has been since Cattell's time. He was also an advocate for the application of psychology to the problems of business and industry. The Psychological Corporation is clear testimony to that philosophy. No matter that it failed under his leadership= the concept was a good one. He also tried to maintain a scholarly tone to this applied work through his journals and the scholarly and academically oriented board of directors. He clearly recognized the need for maintaining a credible scientific base. (p. 98)

Cattell was one of the founding members of the American Psychological
Association and later became one of the early presidents of the organization.
The lack of success in Cattell's research caused some disbelief amongst
other psychologists during his Columbia term. However, when creating the
Psychological Corporation, he created shares and sold to over half of the
American Psychology Association members. Cattell was described as " an

ambassador of psychology: delivering lectures, editing journals, and promoting the practical application of the field" (Parrott, 1997 pg. 9).

It is believed that Cattell influenced other psychologists. These psychologists include but are not limited to: Thorndike, Hollingworth, and Wissler. There are awards given throughout science. Landy (1993) stated that one of the most prestigious awards given by the Division of Industrial and Organization Psychology of the APA has been named the James McKeen Cattell Award, and it is awarded yearly for excellence in research design. (p. 98) Since the beginning of Cattell's works failing to become an influential psychologist he finally realized how to proceed with his ideas of why he collected data.

## Conclusion

Historical case studies provide the building blocks for current and future studies for industrial organizational psychology studies. The precedent set by James McKeen Cattell in his work provides to be influential. The lack of research design in his Columbia studies provided a model to build on when creating future designs. Industrial Organizational psychology provides many opportunities for research design. The statistical methods and quantification of data proves to be a determining factor in many research studies in I/O psychology.

## References

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