The Scientific Aspect of I-O Psychology

Letter Sent July 2, 2003

I agree wholeheartedly with the many points made by Ann Marie Ryan in “Defining Ourselves: I-O Psychology’s Identity Crisis” which appeared in the July 2003 edition of TIP. I am currently a director of human resources because this was the one profession that came closest to knowing what our expertise was all about. It amazes me that when I tell someone my graduate degree is in I-O psychology, they usually give me this blank look as if searching for some type of response that will not make them appear to be ignorant. The only people I have met that were fully aware of our field are the people from our field.

In Ryan’s article, she comments about part of our identity being based on “scientific approach” and that some members complain about an overemphasis on this aspect of our field. I strongly believe this one area is where we, as professionals, clearly differentiate ourselves from general human resource professionals. Too many bad decisions have been made in many organizations because there was a lack of any type of research, measurement, and statistical analysis of the problem. Our field’s strongest asset is our ability to apply a scientific protocol to large problems in an effort to identify a solution that will not confound the original quandary.

MBAs do well in managing budgets and providing strategic direction for organizations in order to maintain their competitiveness within their respective markets. However, how do they determine the source of morale problems within the organization? How do they determine the true source as to why employee productivity levels are decreasing? How do they determine why the executive that was just hired is not fitting in with their culture? How can any of these questions be answered effectively without some type of scientific analysis?

Another reason that scientific standards need to be applied in our field is that the general population does not have a basic understanding of statistics and rely, to their detriment, on misinformation printed by individuals who do not apply such standards. How many times have you read an article in a newspaper or magazine that discusses some type of research that was done on a particular problem and the statistical analysis proved, through correlational analysis, that a cause and effect was proven? Recall all the publicity surrounding the issue of smoking causes cancer. All too often, the articles made reference as to how research showed a correlation that smoking causes cancer. Now, if I recall my statistics coursework correctly, correlational
analysis does not prove cause and effect. Do we want this same type of rationale applied to organizational decisions?

Periodically, I teach applied psychology courses as an adjunct faculty member. I always make it a point to include within the curriculum a brief discussion on the topic of research and statistical analysis. The intent is to provide my students with a basic understanding as to what constitutes valid research information and what research information should be discarded. The last thing I would want to hear about is that one of my students attempted to implement an intervention to correct a problem within their organization and the intervention backfired because it was based on poor scientific analysis.

In conclusion, I strongly disagree with the opinion that our field overemphasizes scientific analysis. To the contrary, our field should vehemently emphasize this aspect of our identity for the many reasons that I have discussed herein. We should be seen as professional sources that can apply appropriate research and measurement techniques to organizational dilemmas that will identify accurate courses of action.

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