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RIGOROUS RELEVANCE OR RELEVANT RIGOR: A DISCUSSION OF THE ATTRIBUTES OF ACADEMIC RIGOR AND PRACTITIONER RELEVANCE

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ABSTRACT

In today's business/educational climate, there appears to be a dichotomy between the needs of the research-oriented academician (academic rigor) and the goal-oriented requirements of the practitioner (practitioner relevance). The following analysis discusses the evolution of each party's perspective, compares the individual party's needs, and attempts to reconcile the differences.

Keywords: Rigor and Relevance, Emotional Intelligence, Artificial Intelligence, Chapt GPT, PDSA Cycle, Empirical Cycle.

INTRODUCTION

In the film "Ghostbusters" the primary characters, Dr. Egon Spengler (played by Harold Ramis), Dr. Raymond Stanz (Dan Ackroyd), and Dr. Peter Venkman (Bill Murray), are parapsychologists whose research grant is revoked by the University Board of Regents when their research is questioned. As a result, Dean Yeager (Jordan Charney) dismissed the three from the university. When Dr. Venkman requests an explanation for the basis of the dismissal, Dean Yeager responds:

Dean Yeager: "We believe that the purpose of science is to serve mankind. You, however, seem to regard science as some kind of dodge or hustle. Your theories are the worst kind of popular tripe, your methods are sloppy, and your conclusions are highly questionable. You are a poor scientist, Dr. Venkman."

Dr. Venkman: "I see."

Dean Yeager: "And you have no place in this Department or this University."

Source: "Ghostbusters", I. Reitman, Producer/Director, (1984), Sony Pictures.

Afterward, during a period of reflection, Venkman and Stanz discuss the implications of their dismissal:

Dr. Stanz: "A major disgrace; forget MIT or Stanford now; they wouldn't touch us with a ten-meter cattle prod."

Dr. Venkman: "You're always so concerned with your reputation; Einstein did his best stuff when he was working as a patent clerk."

Dr. Stanz: "You know how much a patent clerk earns?"

Dr. Venkman: “NO?!?!”

Dr. Stanz: “Personally, I like the university, they gave us money and facilities, and we didn’t have to produce anything. You’ve never been out of college; you don’t know what it’s like out there. I’ve worked in the private sector; they expect results.”

Source: “Ghostbusters”, I. Reitman, Producer/Director (1984), Sony Pictures.

These dialogues personify the stereotypical mindsets and misguided beliefs that are a basis for opinions in the discussion between the call for rigor in academic research and the need for relevance desired by the practitioner. For example, within the last statement, Stanz states that expectations in the academic realm are nonexistent while implying that the private sector always expects results. Further, Stanz implies that the private sector is not a nice place for a scientist. Nothing can be further than the truth for either proposition.

Some of the individual takeaways from this discussion include that a university environment is lax regarding available resources and resulting expectations; the basis for their dismissal from the university disproves that supposition. Another is that the only focus of the “real world” is the constant desire for results, which may be true in some instances but is not always.

We used several search engines that scanned multiple publication databases for numerous search topics to conduct our analysis. The search engines included OneSearch and Google Scholar, which reviewed such databases as ABI/INFORM, PubMed, JSTOR, and Elsevier. The issues of interest included positions held by the educational scholar and the active business practitioner. In addition to these issues, we sought to consider recent developments such as Artificial Intelligence (AI).

LITERATURE REVIEW

Reviewing the terms “rigor,” “relevance,” “academic,” and “practitioner” reveals that some meanings are connected and discrete in their implications. For example, the definition of rigor includes “extremely precise” (Rigor, n.d., Definition 4), while the meaning of relevant is “having a significant and demonstrable bearing on the matter at hand.” (Relevant, n.d., Definition 1a). One can naturally combine the two into one statement: “extremely precise when relating to the matter under consideration” and not lose the overall meaning of the statement. In another anecdotal association between academics and practitioners, the pool of practitioners, “those who practice a profession...” (Practitioner, n.d., Definition 1), may include academics (such as a professor) of an institution of learning... such as a university (Academic, n.d., Definition 1a). Both parties discussing the gap between rigor and relevance tend to categorize each other into stereotypes (Anderson, Herriot, & Hodgkinson, 2001). For example, there is a belief that if only “they” – meaning the other party – understood what “it” was all about, then jobs could be performed more effectively.

Also, academics may view practitioners as “narrow of a focus,” “atheoretical,” and “interested only in nuts and bolts and manhole covers.” On the other hand, practitioners may perceive academicians as “theoreticians,” “locked in ivory towers,” who never address “real world” problems in the classroom or in their research (Gibson & Mohr,

1977). In short, while academics primarily focus on identifying gaps, convincing other theorists of their importance, and attempting to fill them to be credited for their unique contributions (Bartunek, 2007), practitioners operate under the guidance of their company's upper echelons (i.e., Board of Directors, CEO, top management teams, or other related top executives) to achieve goals that align with their organization's strategy and while limited by their organization's unique resources and capabilities. Thus, these conflicting mindsets are not fruitful in achieving both parties' long-term goals and may further worsen existing misunderstandings, ultimately continuously fostering a detrimental climate of mutual distrust.

In their 2014 article, Bartunek and Rynes traced the roots of this divergence as far back as the 1950s (Thompson, 1956; Pierson, 1959) and cited several studies providing solutions for bridging the gap (Bartunek & Rynes, 2014). More recently, Shepherd and Gruber (2020) also recognized this divide in their research on bridging the gap regarding the focus of entrepreneurs on new business formation and informing academics of insights that can guide researchers to questions of interest to scholars and practitioners (Shepherd & Gruber, 2020).

Therefore, this paper aims to provide a more precise answer to the long-lasting issue that has divided theorists and practitioners into several management-related disciplines: What are the long-term goals of each group? Practitioners have long been trying to develop competitive advantages over their competitors by utilizing tools available that show promise in achieving this goal, and these tools have their roots in academic research (e.g., Porter, 1985, 2011). Early contributions toward this end include Fredrick Taylor and Henry Gantt for Scientific Management, Henri Fayol and Max Weber for Administrative Management and Bureaucracy, Elton Mayo and Abraham Maslow for Human Relations, Fredrick Herzberg and B. F. Skinner for Behavioral Science, among others (Duncan, 1983).

Further, W. Edwards Deming (an American engineer, statistician, professor, author, lecturer, and management consultant) promoted statistical sampling in measurements, epistemology, and psychology as a basis for continually improving quality to gain competitive advantages. Effectively, based on the methodology of diagnosing situations, developing problem definitions, and designing solutions (Akin, 2004), Deming advocated the Plan-Do-Study-Act process, known as PDSA or the Deming Cycle. One of the steps in the Cycle, the Study portion, requires that outcomes be monitored to test the plan's validity for signs of progress, success, or problems and areas for improvement (PDSA, 2018). We will return to this notion later in our discussion.

Practitioners have embraced these concepts and, using subsequent offerings that may or may not utilize grounded theory (e.g., Kaplan & Norton's The Balanced Scorecard, 1996; Collins & Porras' Built to Last, 1996; and Collins' Good to Great, 2001), have adopted these doctrines into their business cultures (Collins, 2001; Collins et al., 1996; Kaplan et al., 1996).

Practitioners accept these philosophies because they believe they provide concrete guidelines that are "proven" and "make sense," which leads to organizational success. In addition, these "experience-based" offerings provide practitioners with higher

confidence in obtaining desirable profitability in that utilizing the concepts represents a reliable basis for decision-making (Kemel & Travers, 2015).

Unfortunately, practitioners are sometimes motivated by the philosophy that “time is money,” and their desire for immediate results often dictates daily organizational routines. Therefore, practitioners may choose certain doctrines or philosophies promoted in these offerings to improve the bottom line as quickly as possible. Unfortunately, this short-sighted approach can be detrimental to the long-term viability of the entity.

We now turn our attention to the case of academics and attempt to provide further insight into the following research question: What are the goals of academics? Over the years, the dynamics of academia have evolved from former executives telling “war stories” to more systematic and objective inquiry toward academic rigor (Vermeulen, 2005). During the 1950s and 60s, criticisms arose that business schools must move toward “a more discipline-based, rigorous investigation replete with sophisticated data collection methods” (Ranjay, 2007, p. 776).

Quantitative analysis was recommended as a critical solution to address related critiques (Ranjay, 2007). Supporting this movement are accreditation entities spearheaded by the golden standard for business schools across the globe— the Association to Advance Collegiate Schools of Business (AACSB), which, to this day, “require schools to demonstrate the impact of faculty intellectual contributions on targeted audiences” (AACSB, n.d., p. 6).

As mentioned earlier, whereas practical analysis may utilize the PDSA model with success as the goal, academics seek to validate their theories and research through Grounded Theory (GT) following an empirical cycle (Swanborn, 1994). GT is a systematic methodology applied mainly to qualitative studies conducted by social scientists but has been used in other areas, such as education and health research (Turner & Astin, 2021). It emerged in the 1960s as part of a sociological research study conducted by Glaser and Strauss (1967) investigating dying hospitals.

GT generates concepts grounded in data shaped by participants' views, moving beyond description and toward a theoretical explanation of a process or phenomenon (Corbin & Strauss, 2008). The empirical procedure involves the development of hypotheses and theories, informed through data collection, with subsequent analysis leading to verification or lack-there-of (Glaser, Strauss, & Strutzel, 1968).

The empirical process follows the procedure outlined below:

1. **Observation:** *The observation of a phenomenon and inquiry concerning its causes.*
2. **Induction:** *The formulation of hypotheses - generalized explanations for the phenomenon.*
3. **Deduction:** *The formulation of experiments that will test the hypotheses (i.e., confirm them if true, refute them if false).*
4. **Testing:** *The procedures by which the hypotheses are tested and data are collected.*

5. Evaluation: The interpretation of the data and the formulation of a theory - an abductive argument that presents the experiment results as the most reasonable explanation for the phenomenon

The end goal of the empirical cycle is validation (van Aken, 2001; Andriessen, 2004).

This movement has evolved to where some individuals perceive that the only purpose of rigorous research is to write papers so that other academicians can read and provide either supporting literature or a different perspective on the topic. Another viewpoint is that if research lacks rigor, it would not be worthy of publication and relevant to a practitioner (Vermeulen, 2005). Recently, efforts were started to evaluate university research and improve transparency, replicability, and meaningful research outcome:

Many university administrators rely on university ranking systems as indicators of improvement over time, compared to other institutions. Universities promote improvement in standings as evidence of progress in the academic and research environments when requesting funding from government sources. Other universities use ranking systems as evidence of cost-benefit for previously funded initiatives and to support additional funding requests. Consumers use university rankings to evaluate higher education opportunities both nationally and internationally. Previous reviews of university rankings found that emphasis on reputation and institutional resources may not truly represent university quality (Vernon, Balas, & Momani, 2018, 2).

Within these confines, possible disruptive technologies (manifested through Artificial Intelligence or AI) have arisen that may provide academics and practitioners opportunities to align their foci toward addressing potential issues.

Webster defines AI as “a branch of computer science dealing with the simulation of intelligent behavior in computers. The capability of a machine to imitate intelligent human behavior” (Artificial Intelligence, Definition 1). While an emerging technology in its early stages, AI may provide a tool for converging belief sets; however, at the same time, it might increase the divergence of thoughts if its aspects are embraced by one party and rejected by another, a concept discussed later.

We are now led to a dialog regarding the need for relevant practice insights versus rigorous research. Have the needs of each evolved to the point where there is an intractable divergence between the two, and if so, what avenues are possible for convergence?

DISCUSSION

With the above arguments in mind, academics have made more topical offerings that practitioners have embraced. For example, the conceptual philosophy of Emotional Intelligence (or EI - a term initially coined by Davitz et al. in 1964 in the book *The Communication of Emotional Meaning*) was expanded upon by Daniel Goleman in his 1996 publication *Emotional Intelligence: Why it can matter more than IQ?* which has led to numerous extended publications by various authors with practical relevance as a focus (Davitz et al., 1964; Goleman, 1996).

Psychology Today defines EI as:

... the ability to identify and manage one's own emotions, as well as the emotions of others. Emotional Intelligence is generally said to include a few skills: namely emotional awareness, or the ability to identify and name one's own emotions; the ability to harness those emotions and apply them to tasks like thinking and problem-solving; and the ability to manage emotions, which includes both regulating one's own emotions when necessary and helping others to do the same (Emotional Intelligence, n.d.).

In addition, the dynamics associated with Agency Theory (initially presented in 1976 by Jensen and Meckling in their thesis *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*) have been extensively researched by behavioral scientists and economists and have generated significant notice by practitioners over recent years (Jensen et al., 1976).

Agency Theory (the principal-agent problem or the Agency Dilemma) originated as an economic theory and subsequently evolved into political science, supply chain management, et cetera. Agency Theory centers upon when “agents” (individuals within lower echelons of the company) are granted decision rights, acting upon behalf of the company’s stakeholders (the shareholders, Board of Directors, et cetera) defined as “principals”. An asymmetry issue develops when the agents' goals do not align with the principals' goals (Jensen et al., 1976), and academics have sought to inform practitioners on various theories associated with the incongruency.

Recently, the influence of Agency Theory has expanded to such topics as family-owned businesses (Brandt, da Silva, & Beck, 2021; Miller & Le Breton-Miller, 2020) and the influence of females upon corporate Boards of Directors (Amin et al., 2021; Suherman et al., 2021).

Based on the current discussion, one could argue that both needs are identical and that validation is the same as success. Both parties seek avenues for these goals, venues to evaluate the degree of accomplishment, and methods to enact changes that foster improvement and add value.

It seems to the authors that both parties follow the same course, charting the same direction; however, each utilizes similar maps on parallel roads. Other differences are the modes of transportation used and the speeds at which each travel. The vessels used differ due to the size and spectrum of the information disseminated; for example, practitioners are increasingly collecting “Big Data,” which Webster defines as “an accumulation of data that is too large and complex for processing by traditional database management tools” (Big Data, n.d., Definition 1), to answer practical questions and solve existing problems; however, practitioners often lack the necessary resources to analyze the data.

Academics, in contrast, have the training required to develop and test related theories using Big Data but often lack access to real-world data sets (Gillespie, Otto, & Young, 2018) and, thus, may have to rely on data collected by third-party companies such as Qualtrics or Amazon Mechanical Turk (MTurk), which often suffer from critiques linked to their lack of validity due to the lack of ability for the researcher to track survey respondents (Aguinis, Villamor, & Ramani, 2021). The speed differential lies in the fact

that practitioners are pressured to arrive at decisions more quickly, whereas academics can (and should) run at a more controlled pace (Bartunek et al., 2014). To that point:

Replicability is a fundamental requirement of any scientific work, of course; unless it can be shown that a repeat of an existing research experiment under similar circumstances generates comparable results, the first experiment may have been affected by circumstantial factors, which render its findings unreliable (Bruns 2013, 5).

From a different perspective, while business schools are criticized for disconnection from the world of business practice, practitioners have a thirst for academic knowledge.

On the one hand, a profusion of academic journals publishing papers that are seldom read by business leaders and, on the other, a profusion of business professionals eager to have access to journals and papers, as long as they are written in plain language, and their contents can be turned to practical business use (Perea & Bradley, 2017, 1060).

Recently the emergence of AI as a disruptive technology may provide a venue for collaboration between academics and practitioners by providing an ability for technology to artificially perform cognitive functions, such as perceiving, reasoning, learning, and interacting. One particular AI tool, OpenAI's ChatGPT (Generative Pre-trained Transformer), has moved to the forefront of the AI discussion due to its ability to generate human-like text (Iskender, 2023).

AI has evolved due to three technological developments that have reached enough maturity and convergence: advancement in algorithms, accumulating large amounts of data, and increasing computational power and storage at low cost. The emergence of AI provides an opportunity that may replicate the dynamic changes associated with the advent of personal computers during the late seventies and eighties (Ergen, 2019).

As an emerging technology, AI offers anticipated positives, including enhancing the writing process, avoiding spelling errors, and reviewing for plagiarism (PSU, 2022). In addition, some positives focus on improving the standard of living by enhancing possibilities for individuals with disabilities, improving workplace safety (ProCon, 2023), improving task efficiency, and providing avenues for improving innovative technologies (Holland & McCallion, 2019).

Depending upon one's point of view, perceived disadvantages may include the elimination of person-to-person interaction (PSU, 2022), leading to the potential to eliminate numerous jobs (repetitive jobs) and create mass unemployment (ProCon, 2023).

While the possibility of job elimination exists, human involvement and intervention are still required to develop and maintain the algorithm (PSU, 2022). However, this level of human interaction may lead to a biased information system that can spread incorrect theories and logic, including human racism and the creation of unfavorable privacy issues (ProCon, 2023).

One fear that academics and practitioners may share is that AI may diminish the level of Critical Thinking skills. For example, ChatGPT claims that it helps academics delegate monotonous tasks such as grading and focus on more intellectual tasks, and students

may utilize ChatGPT to brainstorm ideas. However, ChatGPT has claimed it cannot be an alternative for human creativity and critical thinking (Iskender, 2023).

On the practitioner side, HR managers have been increasingly adopting AI for selection purposes as the capabilities offered by such tools allow rapid and efficient talent selection of adequate job applicants (Dattner, Chamorro-Premuzic, Buchband, & Schettler, 2019; Van den Broek, Sergeeva, & Huysman, 2021). However, while these AI tools augment HR managers' ability to find talent, this poses ethical issues linked to selection biases that may prevent certain job applicants from accessing jobs they would otherwise qualify for because AI may already be able to detect applicants' characteristics that those applicants would not have disclosed due to privacy-related issues (Dattner et al., 2019).

Such features may include sexual orientation, potential mental or physical disabilities, personality traits perceived as problematic for the job, or even a combination of other related characteristics deemed "problematic." As a result, these topics are typically restricted for prospective employers (or recruiters) during a traditional hiring process (EEOC, n.d.; 29 USC, 1967).

From a business perspective, while the benefits previously discussed may improve the business environment, some specific tasks currently cannot be conducted using AI. For example, since AI tends to lag due to the timing of learning, AI does not perform well in such activities as presenting the latest news, which requires human interaction to ensure accuracy and relevance (George & George, 2022). In addition, it has difficulty performing complex mathematical calculations that go beyond programming knowledge requiring knowledge and understanding of how mathematics works, which currently only humans possess (George & George, 2023).

CONCLUSION

Challenges posed by Big Data and AI may present a significant opportunity to merge the goals of both parties and offer meaningful solutions to existing business problems while advancing theoretical understandings (Gillespie et al., 2018).

One area of collaboration may lie in medical research. For example, AI innovations, through enhancements in such areas as optical coherence tomography (Nenonen, Brodie, Storbacka, & Peters, 2017), promise to improve the detection, screening, and diagnosis of ocular disorders, such as diabetic retinopathy (Gulshan et al., 2016; Ting et al., 2017), macular degeneration (De Fauw et al., 2018; Schlegl et al., 2018), and glaucoma (Phene et al., 2019; Jammal et al., 2020).

While the viability of the research in these areas lies in vigorous research, measuring success lies in the practical application to benefit humanity. Therefore, the collaboration would require practitioners to actively participate in the research arena (Nenonen, Brodie, Storbacka, & Peters, 2017). However, the authors believe that given the similarity of the PDSA Cycle and the empirical process, any form of collaboration should not be an insurmountable effort, and, repeating Dean Yeager in *Ghostbusters*, "We believe that the purpose of science is to serve mankind." (Reitman, 1984).

Opportunities for continued research that bridge the academic world and business arenas include advances in medicine (as previously discussed), human behavior, verbal

and non-verbal communication, and understanding human motivations, thinking, and interaction (CMU, n.d.). In addition, other opportunities include creating autonomous robotic systems and building models to help predict and discover new materials (Columbia, n. d.) and analyzing low-octane gasoline and gasoline additives for improved fuel efficiency (Mukhtor, Temirbek, & Dilnoza, 2023).

Finally, HR scholars could work alongside their practitioner peers to develop policies and procedures to train algorithm-based recruitment tools and delineate comprehensive ethical standards that would allow the effective prevention of discrimination-related features, including existing areas already embedded in HR recruitment tools.

SUMMATION

Several years ago, when one of the authors of this research transitioned from the practitioner role to an academician, a former colleague whose career was primarily in academia commented that this transition would “ruin it” for the academic. The author said, “They (the academic) were only upset because now, they would have to work.” The response from the academics was “no,” their fear was losing academic freedom, which would restrict their research activities. These comments expose the problems that lie ahead. Both groups must address each other’s fear of the other, abandon the stereotypical and misguided beliefs, and reach out to each other if research evolves.

While several theorists already advocate for increased theorist-practitioner collaborations, much more work is needed to effectively reduce or, ideally, eliminate the invisible veil separating these seemingly-irreconcilable adversaries. We hope this work will spearhead a series of simultaneous efforts from both parties to eventually “bury the hatchet” and recognize that they could benefit greatly from working in a complementary manner.

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