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Developing Career Theory Based on “New Science”: A Futile Exercise? The Devil’s Advocate Commentary

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While admiring the plausible attempt of developing career theory further, via New Science ideas and framework, I argue that career theory should first start with establishing a career theory based on the behavioral and management sciences. I suggest caution when transforming ideas that may fit minerals and plants into the realm of human thinking, feeling, and behaving. In particular, career theory should reflect the changing nature of socio-economic systems and work environments, and these may not be best reflected in New Science concepts.

The development of theory for the field of careers is still in its infancy. Several attempts have been made to develop and establish career theory. This current attempt seeks to do so on the strength of “new science”, described earlier by Bird, Gunz and Arthur (2002, this issue) as a set of concepts, principles and themes from the physical sciences addressing the inadequacies of reductionist classical scientific methods. On the one hand, the idea to build such a theoretical contribution on the foundations of new science is plausible. On the other, it may prove too ambitious. I will argue here for the latter, using a metaphor from engineering and architecture: inviting scholars to use new science theory to build career theory seems like concentrating on planning and devising a top cover of glass and Titanium construction to a building which does not yet have its foundations set right.

Career, be it taken as «life-stories of people» (Bird et al., 2002: 3) or as a process of development of the employee along a path of experience and jobs in one or more organizations (Baruch and Rosenstein, 1992), is a complex concept, originating in several different frameworks. Arthur, Hall and Lawrence (1989a) have indicated that the concept of a career is not the property of any one theoretical or disciplinary view. They presented eight viewpoints on the career concept (psychology, social psychology, sociology, anthropology, economics, political science, history, and geography), all within the boundaries of the behavioral sciences. This list seems to provide comprehensive coverage, apart from the apparent lack of an organizational theory perspective. Within these boundaries, scholars struggle to develop a coherent career theory. This aim has not yet been fulfilled. In addition to the

complexity of careers we are witnessing rapid environmental changes that makes it look unrealistic, even without the introduction of new science into this field.

The Devil's Advocate argument presented here offers a focus on traditional fields of study before embarking on a new, trendy, search based on the ethos of new science and new age concepts. Indeed the area of career theory needs further development, and more is being done now via innovative conceptual frameworks originating in the traditional fields mentioned above. In particular the field can benefit from combining such frameworks, as has been done in the study of expatriation, for example, where work has combined innovative concepts from psychology (such as the psychological contract) and modern geography and culture studies to better understand this aspect of careers (cf. Guzzo, Nooman and Elron, 1994). More needs to be done in the field of organizational theory which, at the present stage, offers fertile ground for further developments in career theory. Empirical work may also help to generate innovative theoretical models, for example studies based on organizational practices (cf. Baruch and Peiperl, 2000).

AN IN-DEPTH EXPLORATION OF THE NATURE OF CAREERS

Analysis of careers should take place at several levels. First and foremost, the career is individual "property"; thus much of its study falls within psychology and social psychology. However, in dealing with careers we usually refer to working careers, and work is associated with organizations. Of course working careers are just part of the overall perspective that should be made while studying people's career. In particular there is a vast literature on the work vs. non-work facets of life.

Although much of the study of career began with the establishment of large work organizations following the industrial revolution, large organizations existed in the past. Clear career paths were developed in most civilian authorities and armies. In the *Bible* Moses received advice on how to develop a managerial structure for the Israelites, based on a span of control of 10 for each managerial level (including policies for selection and promotion). Ancient bureaucratic structures taken to the extreme by the Roman army and Catholic Church structure stayed comparatively unchanged during the last millennium.

The industrial revolution took this structure, with its clear career system, and adopted it by means of the ideas of Fayol, Taylor and Follet, and it was good enough for many years. However the post-modern combination of the IT revolution, globalization and competitive edge creates a basis for different types of career systems and concepts. Hall's "protean" career (1996), the "boundaryless" career of Arthur (1994), and Peiperl and Baruch's "post-corporate" career (1997), all suggested alternatives to the common and rigid structure of career systems. Most of these models reflect a transition from a career that is

set and managed by the organization along clear, direct paths, to individual-led developmental processes, multi-directional and high risk.

CAN THESE CHANGES BE ACCOMMODATED BY AND BETTER UNDERSTOOD VIA NEW SCIENCE?

There is a significant difference between the natural and the behavioral sciences: The natural sciences look for a set of rules or formulas to explain phenomena. As such, even one case in which the theory does not hold true is enough to topple it down. In the behavioral sciences we look for associations, trends, a multitude of explanations, contingencies, and never expect a single rule. Moreover, in the behavioral sciences, the exceptions are sometimes the focus of study and may be the more interesting and relevant subject. Such is the case of the study of leadership—not how will the majority behave, but how a specific few will act, in particular under crisis circumstances.

People change, people can develop and transform. They can adopt new behaviors, beliefs and even values. Physical material does not, and as implied from Alfred Schultz book *The Phenomenology of the Social World* (Schultz, 1967: 33, 221), the advantage of natural sciences on the behavioral sciences is that atoms and molecules don't talk back.

The argument here suggests that due to the complexity of both human beings and organizations, any attempt to offer a grounded all-encompassing theory for the understanding of careers is doomed to be inadequate. Indeed, there is not yet an agreed, comprehensive career theory. Certain theories may make a limited contribution, but this will be restricted to segments of career behavior, type or sector of organizations, or other limited distinctions. This was illustrated in the *Handbook of Career Theory* (Arthur, Hall, and Lawrence, 1989b), which comprises a set of fragmented concepts, all relevant and contributing to career theory.

WHY, THEN NEW SCIENCE?

The temptation is great, and ideas offered by new science concept sound appealing and catchy. As will be indicated later, certain ideas originating from the new science can support an understanding of career phenomena, but to a limited extent (mostly as metaphors). In addition, the success of a few such as Katz and Kahn (1978) with their open system theory which originated in thermodynamics, or Lewin's (1951) Field Theory, which originated in physics, can raise hopes for a replication of such success.

IN WHAT WAYS CAN THE NEW SCIENCE BE USEFUL?

The use of metaphors in many fields of study has been proven a solid and very fruitful idea for theory development. Metaphor is «the appli-

cation of a name or a descriptive term or phrase to an object or action to which it is imaginatively but not literally applicable (e.g., a glaring error)» (The Concise Oxford Dictionary, 1990).

The use of metaphors in the study of organizations has contributed to the development of organizational as well as many other types of theory. The advantage of using metaphors in understanding organizations has been well demonstrated by Morgan (1980, 1993, 1997) in his conceptual framework. Metaphors transposed from more established sciences for use within the science of management can be advantageous, in the sense that the analogy can enhance the understanding of relevant phenomena. «Metaphor facilitates change by making the strange familiar, but in that very process it deepens the meaning or values of the organization by giving them expression in novel situations» (Pondy, 1983: 164).

The new science can definitely offer new and relevant metaphors to add to our understanding of the phenomena of careers. Will it be sufficient to develop new career theory? The answer, I argue, is negative. Bird et al. partially admit this when saying: «In many cases there is little choice: many physical sciences deal with phenomena which simply cannot be identified at the social level of analysis, so the only possible contribution is metaphorical» (2002: 6-7). But they also say: «On the other hand Wheatley's treatment of "new science" includes objects that are emergent phenomena, such as skill sets, unfolding relationships, and adaptations to the work environment. Here it is possible to conceive of frameworks, which might move beyond the realm of metaphor, and, possibly, supply models which themselves could form the basis of useful careers theory» (2002: 7).

To add to the argument for this Devil's Advocate is the claim that the nature of careers is changing as a result of the widespread change happening in the larger socio-economic systems of which careers are an integral part. Environmental and economic changes (e.g., globalization) have a strong impact on people's lives. Subsequently new types of career conceptual framework and career systems emerged: career resilience (Waterman, Waterman, and Collard 1994), the boundaryless career (Arthur 1994; Arthur and Rousseau, 1996), the post-corporate career (Peiperl and Baruch, 1997) and the protean career (Hall, 1996; Hall and Moss 1998). These concurrent career concepts are in fact interrelated, and all trying to bridge the gap between the traditional career theories, which fit well with former organizational frameworks, and contemporary developments of a competitive, global business environment, frequent redundancies, and high individualization of values. The common denominator for these concepts is the need for a theory that will accommodate current phenomena, such as the flexible nature of organizational and individual life.

All of these are manifested by the "new psychological contract", another contemporary concept (Rousseau, 1995, 1996). Even this concept emerged following a long line of scholarly development of the concept of psychological contract. The idea of the "psychological contract" was first put forward by Levinson, Price, Munden, Mandl, and Solley

(1962), and developed later by Kotter and others, (Kotter 1973; Schein 1980; Nicholson and Johns, 1985) before moving on to the “new” psychological contract (Robinson, Kraatz, and Rousseau 1994; Rousseau, 1995, 1996).

This indicates, perhaps, that we should better look for career theory within the socio-psychology paradigms rather than to look for salvation in the “glossy” area of so-called new science.

NEW SCIENCE INDEED?

New science—how new? Very few of us were living when Schroedinger and Heisenberg published their theories (1920), and people who are now retired were at the beginning of their academic careers when Lorenz came up with chaos theory (1963). These theories have been with us for a long time, and many opportunities to apply them have been available to scholars. Why, then, were they not utilized? Two possible explanations are first, that scholars were realistic in realizing the limited potential of these theories to support or build new theories in the behavioral science, and second, that these great opportunities were overlooked by unaware or negligent scholars. I would opt for the first explanation.

DIVERGENCE, CONVERGENCE

The search for all-encompassing career theory focuses on the idea of convergence theory. However contingent theories proved to be effective in the behavioral sciences, especially in organizational settings.

So it may be, as Bird et al. (2002: 5) themselves suggest: «our primary motivation [in introducing yet more perspectives] springs from our quest for ideas that might help us draw the field together.» Yet they add not one but several new attempts to generate career theory. They claim to have a two-pronged objective, to be interested in the extent to which new science perspectives better illuminate our understanding of careers, and in the extent to which new perspectives on careers (in contrast to static notions of “work” or “jobs”) can contribute more broadly to the interpretations of social science. It is not at all clear how and why new science will provide the long looked-for missing link.

Have we yet fully utilized the opportunities and all aspects of behavioral sciences? To use a different metaphor, my argument here is that we need to choose between two roads for the development of career theory. One is bumpy and troublesome, and sometimes leads forward; the other is a fast-lane but partially tested in limited situations with little apparent relation to factors of choice, subjective relationships, and other characteristics of living organisms.

TWO WAY COMMUNICATION

Huff (1999) tells us that scholarship is conversation. We learn and develop our thinking and writing in a scholarly way through real con-

versation with our colleagues. This was proven to be a forceful vehicle for developments in the behavioral sciences. Scholars from different fields of studies such as psychology, sociology, political studies, etc. join forces to write collaborative papers. The conversational process Huff describes is manifested through a multitude of publications by different scholars originating in various paradigms and published in journals that appreciate and accept contributions from all parts of the behavioral sciences. However, the level of collaboration and conversational discussion between the behavioral sciences and the natural sciences is minimal, and contributions such as Wheatley (1992) are the exception rather than the rule. Even in this special issue it is noticeable that collaboration and conversation exists within the borders of behavioral sciences, but that the authors' list does not include leading scholars from field of physics, biology or chemistry (perhaps there is no "Chemistry" between people of these professions—another metaphor with good but limited power).

CONCLUSION

To sum up the Devil's Advocate response to this plausible but futile attempt: using new science may be interesting, certainly fashionable, and very thought-provoking, but not necessary useful for the thorough development of career theory. Perhaps the way forward to benefit from the new science theories would be to see how they contribute to the behavioral sciences in general, and then to apply them to career theory rather than bring them through the back door of career theory, a field in its infancy. Indeed career theorists need to learn from other disciplines, but they should be choosy where to look for help.

Endnote: It should be emphasized that my commentary came as a response only to the introductory piece by Bird et al. (2002, this issue). At the time of writing my contribution I had not had the opportunity to read the various papers in this special issue. I hope that reading them will make me change my mind

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