

Is The Sky Falling or Expanding?**A Promising Turning Point in the Psychology of Creativity****Ronald A. Beghetto**

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ARTICLE INFO**Keywords:**

Psychology of Creativity

Theory

Integrative Models

Article history:

Received 1 November 2014

Received in revised form 21 December 2014

Accepted 22 December 2014

ISSN: 2354-0036

DOI: 10.15290/ctra.2014.01.02.05

ABSTRACT

Is the psychology of creativity in a state of crisis? In this commentary, I explore this question and argue that the field of creativity studies faces an important turning point, which signifies a promising expansion and maturity of the field. I then discuss, by way of example, how integrative models can serve as an important vehicle for moving the field forward. I close with a brief discussion of how integrative models allow creativity researchers to capitalize on opportunities presented by the expansive growth occurring in the psychology of creativity.

Is the psychology of creativity in a state of crisis? Glăveanu's (2014) provocative essay points to several features of the field, which he interprets as signs that a crisis may be close at hand. These signs include, the diffuse and micro-focused nature of the questions asked, the taken-for-granted definitions used, the narrow units of analysis employed, the limited methods applied, the lack of theory developed, and the inadequate applicability of conclusions drawn. How might creativity researchers respond to such claims?

One way is to simply dismiss them as rhetorical hyperbole. The basis of such a response may be driven by an attempt to maintain the status quo by deflecting any criticisms. Another, more subtle, way of dismissing Glăveanu's points would be to agree that a crisis is at hand, but suggest that it is a different sort of crisis. Proponents of an alternative crisis might argue that the real crisis with the psychology of creativity is not that the field needs fresh theories or more original studies, but, in fact, there is already too much of a focus on originality, which can lead researchers dangerously off-track (see Makel, 2014 for a discussion). Yet another way to respond would be to recognize that crisis also means a turning point and, in the case of the psychology of creativity, a sign that there is a promising expansion and maturity of the field. It is along the lines of this latter re-

sponse that I focus my remarks.

EXPANDING THE HORIZONS OF CREATIVITY RESEARCH

Glăveanu challenges us to take a more creative approach to our work. To help guide us in doing so, he puts forth six general principles that he hopes can serve as an agenda for the future of the psychology of creativity. Those principles include: (1) ask bold, new, and surprising questions; (2) reflect on definitions, do not simply take them for granted; (3) challenge traditional units of analysis; (4) look for unique, interesting samples and develop new methods; (5) build theory, don't just cite it; and (6) think practically about your conclusions.

In what follows, I hope to illustrate by way of example how integrative models can serve as a good starting point for instantiating Glăveanu's six principals. Specifically, I use the example of imagination, creativity, and innovation (ICI). First, I briefly discuss the fragmentation surrounding ICI. Next, I introduce an initial sketch of an integrative model. I then close by discussing how integrative models can allow creativity researchers to capitalize on opportunities presented by the expansive growth occurring in the psychology of creativity.

IMAGINATION, CREATIVITY, AND INNOVATION

How might we understand creativity in the context of imagination and innovation? Creativity scholars, across several disciplines (e.g., psychology, business, philosophy, education), have examined these constructs, but often in isolation. Sometimes they are described as distinct constructs (e.g., how innovation is different from creativity, see Gilson & Shalley, 2004). Other times one concept may be referred to as an aspect of a more general process (e.g., referring to imagination as an aspect of creative cognition, see Ward, 1994). Still other times they are used synonymously.

Although scholars have explored these three constructs in various ways, few have attempted to understand or examine the relationship amongst these constructs.¹ I have yet to come across an integrative model that adequately conceptualizes the relationships and differences among imagination, creativity, and innovation. Indeed, as Glăveanu notes, we often break apart (or blur) creativity and related constructs. When this happens we unnecessarily restrict the kinds of questions we ask, the kinds of methods we employ, and the kinds of insights we can draw.

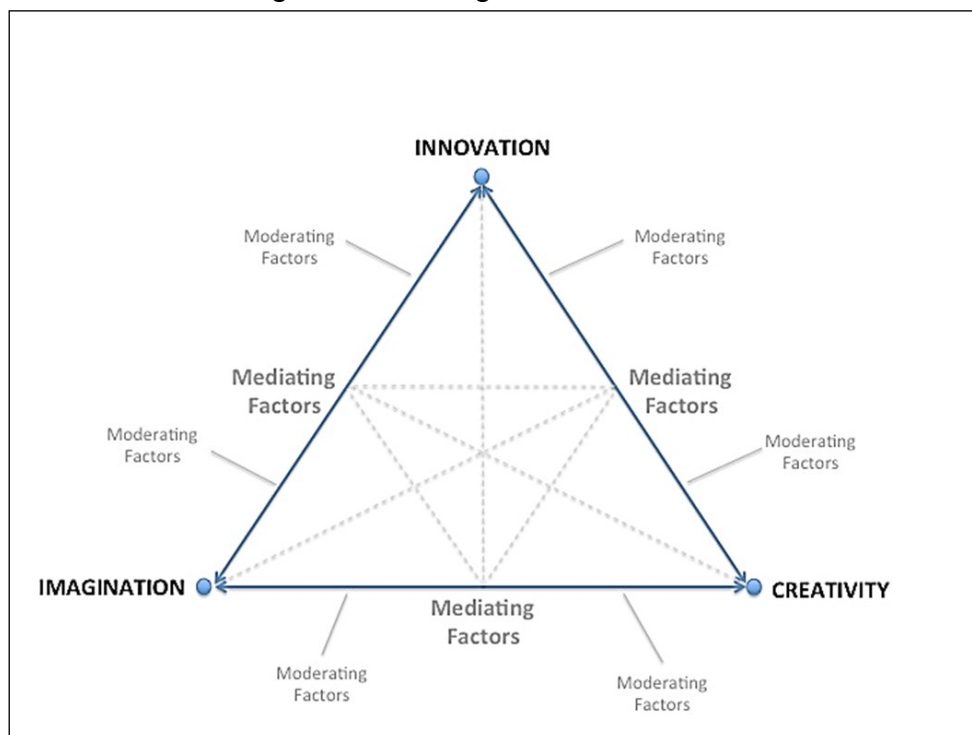
¹ Some initial efforts, however, have been made in this direction (Renzulli & Beghetto, 2014).

(RE)PRESENTING IMAGINATION — CREATIVITY — INNOVATION (ICI)

How might creativity researchers conceptualize and explore the relationship among ICI when previous work in this area seems so fragmented, blurred, and disjointed? One way to start would be to sketch out an integrative model. Of course, without additional theoretical work, such a sketch would serve more as a pedagogical tool than a fully realized model. Even so, such a sketch can highlight the potential promise that integrative models hold for the psychology of creativity. This is because integrative models offer a way of making sense of scholarly efforts by situating them in the broader landscape of the field.

A good first step in developing an integrative model of ICI would be to start by putting each of the three ICI constructs on equal footing, unconstrain the potential relationships, and make room for the specification of various mediating and moderating factors. Figure 1 represents my initial sketch of such a framework (inspired by Engestrom's activity system, e.g., Engestrom, 1999).

Figure 1 ICI Integrative Framework.



As illustrated in Figure 1, each ICI construct serves as a “quilting point” (*point de capiton*, Lacan, 2007) – anchoring and stitching together an integrative system that can house a myriad of potential sub-concepts and relationships. Moreover, by putting the constructs on equal footing, creativity researchers can avoid the temptation of privileging creativity in the relationship and, instead, simultaneously consider the three constructs in a broader, more integrative context. Indeed, when considering the three constructs in simultaneous relationship with each other, standard definitions of imagination, creativity, and innovation may require revision and rethinking. Moreover, classic lines of research (e.g., divergent

thought, problem finding), which have traditionally been classified under the heading of one construct (e.g., creativity) might be better understood as a component of another construct in the system (e.g., imagination).

Also, by unconstraining the relationships in the system, researchers can conceptualize and examine a wide array of potential associations among these constructs - including reciprocal, bi-directional, mediated, and moderated relationships. Not only will this allow researchers to conceptualize new relationships among the three ICI constructs it also opens up possibilities for identifying and examining new relationships among the factors that mediate and moderate the three ICI constructs.

Finally, given that the ICI framework simultaneously represents these three constructs in a broader system of potential relationships, it can provoke researchers to generate new insights for how they might situate their existing projects in a broader framework and may even point to entirely new programs of research. In this way, integrative models serve two key roles in helping support and sustain a field a study. First they provide an overarching context to help organize and make sense of what might otherwise be viewed as fragmented efforts. Second, they can help stimulate “possibility thinking” (Craft, 2010) and propel a field in new and important directions.

In what follows, I highlight two corollaries to Glăveanu’s six principles that aim to underscore how integrative models can help organize existing efforts and help bridge the gap between where the field currently is (and has been) and where it could (and perhaps should) go from here.

Integrating Zooming-in and Zooming-out. Integrative frameworks enable creativity researchers to zoom-in and zoom-out on phenomena of interest. In this way, creativity researchers can situate their more micro-focused efforts within the broader landscape of the field. Having the ability to zoom-out also enables researchers to consider multiple units of analysis and examine constructs from a new vantage point. Indeed, Glăveanu highlights the potential costs and limitations that can result from creativity researchers focusing too narrowly on particular units of analysis (e.g., a focus on the creative mind) and using only select methodologies (e.g., psychometrics).

Zooming in and out of integrative frameworks also helps researchers consider the relationship among various embedded layers of phenomena. In the case of ICI, for example, the largest grain-size could be the ICI triangle itself. A smaller grain size could be specific relationships of the triangle (e.g., the relationship between imagination and creativity). An even smaller grain-size could be exploring various facets of particular constructs (e.g., imagination). Being able to zoom in and out of an integrative framework serves the

important function of reminding researchers that even the most micro-phenomena are still embedded in a larger activity system. The same can be said of the methodologies and analytic techniques used.

What becomes most important, then, is not the inherited tradition of methods and units of analysis, but the questions asked about the particular phenomena of interest and how that work can be situated in (or even expand beyond) the broader framework. In this way, the usual methodologies and UOAs need not be discarded, but used more judiciously. Moreover, opportunities for developing new (or adapting other discipline's) methods can be made more apparent.

Integrating Bucket Builders and Bucket Fillers. Integrative frameworks also make room for *bucket building* and *bucket filling*. Bucket building refers here to scholars who focus their efforts on building theory. Bucket filling, on the other hand, refers to scholars who focus their efforts on empirical work. Under ideal conditions² such efforts are complementary and mutually supportive. Bucket building establishes new theories that help structure and make sense of empirical work. Bucket filling compliments bucket building by adding empirical flesh to the theoretical skeleton, breathing life into the theories, identifying important limitations and weaknesses, and signaling when it might be time to build a new bucket. Indeed, theories that are never empirically examined represent little more than empty husks of compelling narrative. Similarly, research results that are not adequately interpreted by theory represent little more than empirical pebbles that get tossed onto an already overflowing heap of unstructured and difficult to interpret findings.

Theory building and empirical testing clearly go hand-in-hand, but bringing theory and research together is quite challenging without having an integrative model to provide the macro-context. With respect to imagination, creativity, and innovation, the initial sketch of the ICI framework provides a context wherein prior theoretical and empirical efforts might be organized and new programs of theoretical and empirical work can be outlined.

Integrative models also provide avenues for considering how theory and research might be applied in practical contexts. Given that integrative models create space for both theory building and empirical testing, there is room for considering how theories and empirical findings might be applied to (and vary across) practical contexts. This, of course, doesn't mean that all the work done within an integrative framework needs to have immediate, applied implications. There is a non-trivial gap between describing phenomena and

²Although parity between theory building and empirical analysis is ideal, I would argue that there is a severe lack of emphasis placed on developing theory-building skills in graduate training programs. Consequently, many new scholars lack the knowledge, confidence and ability to develop new theoretical models. Indeed, we require doctoral students to take many hours of courses on research methods and various analytic techniques, but rarely do we require (or even have on the books) courses focused on theory building. Incorporating theory building into graduate training seems like a necessary and feasible step we can take to help support the development of integrative models in the psychology of creativity (Beghetto, 2014).

developing interventions or practical applications based on those descriptions and explanations. The landscape of K12 education, for example, is littered with half-baked instructional techniques and applications drawn too hastily from descriptive and explanatory work. That said, integrative frameworks offer a “big tent” for creativity researchers, wherein scholars can work toward developing interventions and applications based on their findings.

CONCLUSION

When it comes to the crisis in the psychology of creativity, I would say the sky is not falling, but expanding. It is an exciting time for creativity researchers. We are at an important turning point. Given the rapid growth in the field, the time seems right for us to focus our efforts on building integrative models that will help us organize and deepen our knowledge of creativity. The sketch of the ICI framework I presented herein was used primarily for illustrative purposes, but it could be developed to bring together lines of research focused on imagination, creativity, and innovation. Developing it into a full-fledged integrative model would, of course, require much more theory building and empirical refinement. I therefore encourage anyone interested in developing the ICI integrative shell to do so and start adding some much needed theoretical and empirical flesh to it. Doing so might pave the way for similar efforts aimed at integrating, organizing, and expanding the burgeoning knowledge that those in the psychology of creativity have amassed over more than a century of work.

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