

# Why Big Theories are Fruitless, Fragmentation is Ideal, Defining Creativity is Overrated and Method-Driven Research is Urgent: Some Thoughts on the Flourishing State of Creativity Science

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## ABSTRACT

This comment considers Glăveanu's observations about the state of creativity studies. I agree with Glăveanu's view of creativity research but disagree that it is bad. The history of psychology shows that "big theories" inevitably fail to fulfill their promise. Instead, as George Kelly argued long ago, complex problems with many facets are better served by a mix of big and small theories. Likewise, the diversity of creativity research is a sign of healthy pluralism, not lamentable fragmentation. Science doesn't proceed via central planning, and claims of "fragmentation" and "wasted effort" raise disturbing questions about who gets to decide what other scientists should study. Finally, creativity research should be more method-driven than it is. Methods are interesting in their own right, and they can be heuristics for generating good ideas as well as tools for solving problems. All told, this era of creativity research will be remembered as a period of renaissance rather than decline.

I'm happy to have a chance to read and reflect on Glăveanu's (2014) essay on the state of creativity studies. We Americans are justifiably known for our thick-headed optimism — "It will all be okay" could be our motto, alongside "Does that come in a bigger size?" — so it is easy for us to miss signs of impending disasters. Fields do occasionally wither or wander into dead ends. In experimental social psychology, one field I work in, a classic critical piece (Ring, 1967) predicted a doom that did come to pass. Is the science of creativity headed for a similar crisis?

My own perspective on this topic is shaped by having too many irons in too many fires. Much of my work is in creativity, but I have separate lines of work in aesthetics, motivation, emotion, psychophysiology, experience-sampling methods and psychopathology. I also have a humanities side that reads and appreciates history and criticism. Traveling in many circles has provided a sort of anthropological perspective on the growing field of creativity.

## BIG THEORIES ARE OVERRATED AND PROBABLY COUNTERPRODUCTIVE

If psychology has learned anything since its inception, it should be that big, grand theories fail to deliver on their promises. Like alluring boyfriends, they swear they'll make it up to us and never let us down again and we buy into it, perhaps out of the same naïve belief that this time we might have really found "the one," the perfect mate that can meet all our needs. Until recently, for example, personality psychology was dominated by grand theories (Dumont, 2010), and what did they buy us? Did the Freudian decades open or constrain the study of personality? Doesn't matter—that slightly perverted suitor got dumped for staid and stolid Hullian theory (Hull, 1943; 1952). And how did that Hullian model of motivation, personality, and culture work out? The fact that almost no psychologist under 35 has heard of Clark Hull, probably the most influential experimental psychologist of his era, says much about the perils of putting our eggs in one basket, no matter how big and grand it looks.

Psychology has largely stopped searching for "Mr. Right" grand theories and become more promiscuous. It has a lot of "Mr. Right Nows," mid-range theories and small-scale models that work best for focused problems. And long live licentiousness. In his landmark writings on personal constructs, George Kelly (1955, 1958) argued that scientific theories have both a broad *range of convenience* — the region of things they can speak to — and a narrow *focus of convenience* — the small set of things they explain most incisively. Theories that share the same range of convenience — such as the many theories of creativity — don't necessarily conflict, provided they have different foci of convenience. In a sense, all theories can say a little about a lot (their range) and a lot about a little (their focus).

One implication of Kelly's reasoning is that we will always need more than one theory because theories usually have different foci. Take, for example, any of the broad theories of creativity mentioned by Glăveanu, such as Amabile's (1996) componential theory or Sawyer's (2012) sociocultural theory. Sawyer's theory has a broad range, but it is most detailed and focused when applied to problems like the interactions between domains, audiences and gatekeepers. Amabile's theory, too, has a broad range, but it is best known for its detailed guidance on motivational aspects of creativity. For other problems, such as the cognitive dynamics of idea generation, these theories give at best fairly general guidance. In contrast, problem-solving models of creativity can be painfully detailed about how people generate ideas (e.g., Finke, Ward & Smith, 1992), but they offer only vague generalities about how groups generate ideas in real-world creative domains or how motivation might affect creativity. The approaches have overlapping ranges but

non-overlapping foci, as Kelly would say. We should use a sociocultural theory to understand how creative domains evolve, but use cognitive theories to understand how knowledge constrains idea production.

In Kelly's writings, scientific and personal theories are tools people use to make sense of the world and predict what might happen. For complex problems, no single theory can explain all facets equally well. The choice between small models, mid-range theories and big frameworks is false, just as the choice between owning a hammer or a screwdriver is false.

### FRAGMENTATION OR PLURALISM

One person's fragmentation is another person's pluralism. The fact that creativity has sparked the inspiration of so many people in so many different fields of scholarship seems like something to celebrate, not lament. We don't all publish in the same journals, go to the same conferences, understand everything each other writes, or even agree on much, but that's what things look like when a vigorous interdisciplinary community tackles a big problem. Consider the example of major depressive disorder. Within psychology, this is studied by people with interests in genetics, neuroscience, gender, relationship processes, cognitive psychology, human emotions and many other subfields. But it is also studied by historians, cultural anthropologists, critical theorists, literary scholars and many other thinkers who look at depression through lenses that psychologists might find foreign.

You can view this in two ways. One is as horrible fragmentation, as an inefficient use of energy, as a woeful lack of communication and coordination between far-flung tribes. Or you could see it as vital pluralism, as a sign of intellectual dynamism, as the momentary state of a long-term intellectual project. My own work on depression, for example, is pretty narrow. I don't and probably won't ever dabble in historical, cultural, or critical methods. But I'm glad people are doing that, and I see them as intellectual kinfolk, not as misguided others who are "doing it wrong."

And the same for creativity. Its division of intellectual labor is a sign of maturity and progress. My own creativity work is far from cultural, critical, sociological and anthropological approaches — I think inside small boxes, where my tiny candles do a better job of banishing the darkness. But I'm glad other people are doing other kinds of work. I read widely in creativity and can appreciate the sacred texts of neighboring tribes.

And what, indeed, is the alternative to an intellectual division of labor that some see as fragmentation? One is to encourage everyone to do everything, to convert our myopic specialists into big-picture polymaths. This is unrealistic — we can only do so much. The years needed to learn critical methods cannot also be spent learning neuroscience methods, social theory, computational linguistics and the many other methods brought

to bear on creativity. This, of course, is why we divide labor, why geneticists collaborate with psychologists instead of getting PhDs in both fields. Another option is to eliminate some of the occupations and focus everyone's effort on the most promising path. Like Mao's Great Leap Forward, which sought to make farmers and blacksmiths of everyone, this too would lead to famine (Dikötter, 2010).

In short, I see diversity instead of fragmentation, energy instead of cacophony, networks instead of tribes. And I will confess that my humanities side, the part that gets coffee with colleagues in history, gender studies and social theory, does wonder if there's more than a whiff of "intellectual capitalism" in complaints about fragmentation. Is the process of scholarship a factory that must churn out and distribute the commodity of knowledge as efficiently as possible? Must we all use only the methods that have the highest "yield" of output per unit of time invested? Must the whole enterprise be "managed" from the top to ensure a standardized product that meets the market's needs? Should we keep wayward laborers in line when they stray from what the powerful have defined as desirable production practices? A critical theorist might say that the discourse of fragmentation needs to be problematized.

### **DON'T DEFINE CREATIVITY**

If the science of creativity were a gritty knowledge factory, a general definition of creativity would be its banal mission statement: something just specific enough to describe what it does yet just vague enough to avoid hurting someone's feelings. I'm glad there's no consensual definition of creativity, and I would rather people stop defining it. If I edited one of the creativity journals, I'd probably ask most authors to delete the standard boilerplate definitions that one usually sees, but I admit that my views on writing articles (Silvia, 2015) are probably best kept out of the hands of today's impressionable youth.

Do we see creativity as a static thing, as a noun (Billig, 2013)? And if so, do we see it as the same thing for all contexts? Are all creativity scholars studying the same sense of creativity, or even the same thing? Would all intellectual, social, or practical purposes find the same definition fruitful? For example, there's a sense of creativity implied by micro-level research on what the brain is doing when people try to come up with clever metaphors for common experiences (Benedek et al., 2014). This sense of creativity — coming up with a small-scale idea that people similar to you find clever, funny, or compelling — seems different from the creativity studied in research on the success of movies, how teachers improvise in the classroom, the science of machine learning, and the history of why some arts flourish in some communities. We don't need a definition that applies to all of these fields. Some people will study different sides or facets of the same creativity;

others will study different creativities entirely.

### RESEARCH SHOULD BE MORE METHOD-DRIVEN

People talk about “method-driven research” like this is something bad. Usually this phrase is said dismissively by people who would like us to all be more theory-driven — by their theories, usually. But I think creativity research should be more method driven than it is.

It is rational and desirable to try new methods on for size. When you have a hammer, everything does look like a nail, including things you never thought of as being nail-like that might benefit from a good thumping. Methods are systems for testing ideas but also heuristics for generating them. They might crack open a hard problem, put parochial debates in perspective, or open a door we didn’t see before. New methods might also be interesting things worth studying for their own sake, even if the knowledge-factory foremen think such research projects are myopic and unproductive, something better done after clocking out. For example, I use experience sampling methods (e.g., Nusbaum et al., 2014; Silvia et al., 2014), but I also study them (e.g., Burgin, Silvia, Eddington, & Kwapil, 2013; Silvia, Walsh, Myin-Germeys, & Kwapil, 2013). These intricate methods, for whatever reason, strike me as challenging and interesting in their own right. Similarly, what’s wrong with studying methodological and measurement issues in creativity? Why not? It would be weird if everyone studied them, but it’s good for a field when at least some people study its nuts-and-bolts.

Of course, methods aren’t tools that only lab researchers use. The broad category of non-quantitative methods — the rich families of historical, interpretive, narrative, phenomenological and hermeneutic methods, for example — grows quickly, too. Innovative methods evolve in these families at least as quickly as new methods evolve in quantitative research. We won’t know if they’re useful until we try them. Consider, for example, a perspective like *enactive intersubjectivity* (Fuchs & De Jaeger, 2009). This might be fertile for creativity research on collaborative creativity. But it might not. Someone should tinker with this method and see if it buys us anything. Likewise, consider “black box” machine-learning models for studying dynamic social interactions. These might buy us something for understanding collaborative creativity. But they might not.

### CONCLUSION

I agree with nearly all of Glăveanu’s observations about the state of creativity studies, but we reach different conclusions: what might seem like flaws strike me as strengths to build on. Creativity research is flourishing, and I’m glad it is the way it is. The sky isn’t slowly falling — we’re growing taller.

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