# SITUATED SCRIPTING AND ENTREPRENEURIAL EXPERTISE: A SOCIALLY SITUATED VIEW OF THE INFORMATION PROCESSING PERSPECTIVE

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#### **Abstract**

Over the past few years a new narrative has emerged within the area of entrepreneurial cognition research that has moved explanations away from boxologies—seemingly static representations of abstract, disembodied cognitive structures—and towards a more dynamic view of entrepreneurial cognition. In this chapter, using socially situated cognition theory, we revisit our original chapter on entrepreneurial scripts and entrepreneurial expertise in order to better-situate entrepreneurial scripts within this new (more dynamic) narrative. We suggest an explanation that unifies both the static and dynamic views of entrepreneurial scripts.

## SITUATED SCRIPTING AND ENTREPRENEURIAL EXPERTISE: A SOCIALLY SITUATED VIEW OF THE INFORMATION PROCESSING PERSPECTIVE

Plans are nothing; planning is everything.

This statement, a "riff" on a quotation from Helmuth von Moltke the Elder's mid-nineteenth century essay On Strategy, highlights a potential dichotomy between plans (which are more static, rigid, and potentially neverchanging) and planning (which is more dynamic, flexible, and potentially everchanging). The basic premise of this quote is that dynamic action, which may come through planning, is preferred (Weick, 1987). Just as understanding dynamic action has been a focus of strategy research (cf. Eisenhardt, Furr, & Bingham, 2010), so too has it been a focus within entrepreneurial cognition research. Over the past few years a new narrative has emerged within the area of entrepreneurial cognition that has moved away from static boxologies—or the "abstract, disembodied stories about autonomous mental processes" that were present in prior social psychology research (Smith & Conrey, 2009: 455)—and towards a more dynamic view of entrepreneurial cognition and the entrepreneurial mind (Mitchell, Randolph-Seng, & Mitchell, 2011). Within this new narrative comes the call to transform the theoretical explanations for how entrepreneurs think from static explanations to dynamic explanations (Dew, Grichnik, Mayer-Haug, Read, & Brinckmann, 2015; Randolph-Seng et al., 2015).

Consistent with this call for dynamism within this new narrative, in this chapter we revisit our original chapter on entrepreneurial scripts and entrepreneurial expertise (Mitchell, Mitchell, & Mitchell, 2009) to better-situate, and understand, entrepreneurial scripts within this new (more dynamic) narrative. We do so by integrating the notion of entrepreneurial expert scripts with the notion of socially situated cognition (Smith & Semin, 2004). To accomplish this, we briefly describe what is meant by the term "scripts" and how this concept has been understood in prior research.

In a broad sense, scripts are types of schemata (Abelson, 1981), which are the "cognitive framework[s] that an individual uses to impose structure upon, and impart meaning to, social information or social situations in order to facilitate understanding" (Gioia & Poole, 1984: 449-450). The very idea that meaning and structure come from the knowledge structure, to be imposed and imparted to the social environment demonstrates the static nature of these schemata (Gioia & Manz, 1985). Scripts, which have been defined to be the "mental representations of the causally connected actions, props, and participants that are involved in common activities" (Galambos, Abelson, & Black, 1986: 19), are described as being more dynamic than other schemata (see, e.g., Gioia & Manz, 1985: 529). But even this dynamism is of a static sort in its focus on dynamism as sequences of behavior in specific contexts (e.g., such as a restaurant). Here again, the meaning comes from the script, which is enacted as a response to the specific environment. However, with this new (more dynamic) narrative, a more "dynamic dynamism" can be introduced to use of the script concept in explanations of entrepreneurial cognition. To bring scripts—specifically as used in entrepreneurial

scripts research—up-to-speed, we adopt a socially situated cognition approach (Mitchell et al., 2011; Randolph-Seng et al., 2015; Smith & Semin, 2004) and suggest that it is the process of *scripting* itself that enables such dynamic dynamism.

As now captured, if you will, in our "riff" on the above quoted "riff" (through use of some verbal substitution): *scripts* are nothing; *scripting* is everything. Taken at face value this statement might seem somewhat extreme. It is not our intension in this chapter to argue for such a one-or-the-other view (i.e., static *versus* dynamic), but rather to provide a more holistic view of entrepreneurial scripts made possible by the increased dynamism introduced by socially situated cognition-based explanations (i.e., static *and* dynamic). Thus, our approach to introducing dynamism into entrepreneurial scripts research can be succinctly described as: "from *scripts* to *scripting*," where we move the notion of entrepreneurial scripts from a primarily static view to into a narrative with greater dynamism, and hence provide a more comprehensive, complementary view—one that encompasses both the static *and* the dynamic in a more holistic way.

As such, in the first section of this chapter we review the static nature of the entrepreneurial script as presently conceptualized, and suggest that a static view—in the sense of entrepreneurial scripts being predominantly stable or near-stable (versus the static view encompassing rigidity)—is not at odds with the new narrative of dynamism within entrepreneurial cognition research. In the second section we then discuss how entrepreneurial scripts can be viewed more dynamically through a socially situated cognition lens (Smith & Semin, 2004) and introduce a term to refer to dynamism within scripts: namely, *entrepreneurial* 

scripting. And finally, in our last section we provide our conceptualization of the holistic bridge: from scripts to scripting, in particular, by utilizing the analogy of stocks and flows from the resource-based view of strategy (Dierickx & Cool, 1989) that helps us to present a more unified conception of the static and dynamic views. In this final section we also look towards the future of entrepreneurial scripts-based research within the new narrative of dynamism now adopted, we think, within entrepreneurial cognition research; and we suggest how doing so further opens our understanding of the entrepreneurial mind.

### The Seemingly Static Script

Social psychologists have often assumed that inner representations are abstract and context free—stored as prototypes, schemas, or rules, divorced from the specifics of the situations in which the knowledge was acquired and used.<sup>1</sup>

As previously noted, scripts, one form of knowledge structure or inner/mental representation (Abelson, 1981), have often been viewed as static (Gioia & Manz, 1985; Smith & Semin, 2004). To better understand how our use of the seemingly static script conceptualization comports with a dynamic view of entrepreneurial cognition, we further tease-out the nuances of the term *static* to define how we view scripts as being "seemingly" static. We then explain how this view can be seen as being consistent with prior uses of entrepreneurial scripts. Specifically, we highlight how this understanding of *static* can provide a basis for using script-cue recognition to differentiate between expert and novice entrepreneurs.

<sup>&</sup>lt;sup>1</sup> Smith & Semin, 2004: 86

Our analysis suggests that there are many senses of the term *static*. One use of the term static is stable and steady, whereas a second use of the term is rigid and never changing. In the former use of the term, something that is static is seen as being *dependable* and *firmly established*. This use of the term has positive connotations. In the latter use of the term, something that is static is seen as being *non-adaptable* and *with no give*. This use of the term has more negative connotations. Consistent with prior research that demonstrated the possibility of adaptability in scripts (Gioia & Manz, 1985), we utilize the former sense of stability or near-stability in our definition of a static script. In doing so, we can see more clearly the positive contributions of prior research that has used script cue recognition methodology—as presented in our original chapter (Mitchell et al., 2009). Indeed, research adopting this methodology has enabled differentiation between expert and novice entrepreneurs and has been foundational in beginning to map the entrepreneurial mind.

Under this former conceptualization, then, we expect entrepreneurial expert scripts to be *dependably* present and *firmly established* in the minds of expert entrepreneurs, such that scholars can further map the entrepreneurial mind using the methodology we have previously presented (Mitchell et al., 2009). But this interpretation, we argue, represents only part of the story. For example, photography represents a useful analogy about how the seemingly static script has been used in the past. That is, when a picture is taken, an image is captured of some subject matter at a given point in time. In this analogy, the expert scripts serve as the subject matter of these mental "pictures," taken at a given point in time. We expect the subject matter (or the knowledge structures in the minds of

expert entrepreneurs that make up the basis for expert performance and hence expertise) to be present in such "snapshots" (cf., Baucus, Baucus, & Mitchell, 2014 which describes the role of episodic memory in entrepreneurial motivation and affect). In this sense the mental representations are static; and in this way scholars can utilize the presence of such entrepreneurial expert scripts to differentiate between expert and novice entrepreneurs via the script-cue recognition methodology outlined in our original chapter (Mitchell et al., 2009).

But we further argue that an opportunity now exists to build upon prior research in a way that situates the notion of scripts in terms of a more dynamic dynamism (moving beyond sequences of behavior in *specific* contexts to understanding how the sequences of behavior themselves can be dynamic given a changing situation). In other words, we do not go so far as to espouse the latter sense of rigidity in describing how scripts have been used in prior research, and thus do not impose an *ex post* constraint suggesting that prior understandings of entrepreneurial scripts were that they were never-changing (cf. Gioia & Manz, 1985). Indeed, returning to the analogy, a snapshot taken at *a different* point in time may be different due to changes (dynamism) in the subject matter being photographed. It is this kind of dynamism that we seek to address. We do so in the next section by highlighting, in theory that encompasses both the development and enactment of entrepreneurial scripts, a missing piece of the entrepreneurial scripts story.

Another criticism against scripts as schemas is that they have often been considered to be abstract and context-free (Smith & Semin, 2004). In our use of the scripts concept, we have generally not taken this view. In fact, the very nature

of the methodology used to differentiate between expert and novice entrepreneurs—via situational cue-based recognition—suggests that the use of entrepreneurial scripts is dependent on the socially situated environments in which entrepreneurs find themselves (cf. Gioia & Manz, 1985). This view thus also suggests dynamism within entrepreneurial scripts, which we discuss next.

## Scripting and the More-Dynamic Script

The socially situated cognition perspective requires a shift in theoretical focus: explanations of behavior cannot be based solely on the individual's internal representations, but on the interaction of the individual with the social and physical situation. <sup>2</sup>

As previously discussed, prior work has suggested socially situated cognition (Smith & Conrey, 2009; Smith & Semin, 2004) to be a useful theoretical basis for addressing dynamism in entrepreneurial cognition research (Mitchell et al., 2011; Randolph-Seng et al., 2015). There are four main components to the socially situated cognition view of entrepreneurial cognition (Mitchell et al., 2011), three of which have been suggested as applicable to the entrepreneurial expertise branch of entrepreneurial cognition research, that is, that entrepreneurial expertise is: situated, adaptive action-oriented, and distributed (Randolph-Seng et al., 2015).

The dynamism represented within the socially situated cognition view allows us to consider what might influence entrepreneurial expert scripts such that they change. We suggest that for the research sub-literature on entrepreneurial scripts, socially situated cognition provides a theoretical framework—via the three

<sup>&</sup>lt;sup>2</sup> Smith & Semin, 2004: 76

components listed—to better understand the dynamism in entrepreneurial scripts. We refer to this dynamic dynamism as *entrepreneurial scripting*, a term we herein introduce, and which we define to be: *the development and enactment of entrepreneurial expert scripts in response to a changing environment.* By *development* we mean changes over time in an entrepreneurial expert script based on changes in the situation; and by *enactment* we mean the utilization of an entrepreneurial expert script depending on the specific situation. Thus, we contend, increased dynamism is introduced to research on entrepreneurial scripts by applying the three components of socially situated cognition applicable to entrepreneurial expertise research to entrepreneurial scripting, as shown in Table 1.

### {Insert Table 1 about here}

As suggested in Table 1, socially situated cognition concepts can influence entrepreneurial scripting-based explanations in several ways: in explaining both the development of the scripts and in the enactment of these scripts, based on the situated, adaptive action-oriented, and distributed environments in which entrepreneurs find themselves. We therefore argue that because of this dynamism, entrepreneurial scripts that are unique and tailored to a specific situation can be developed. In this sense, a more dynamic dynamism can be expected to come through the development (scripting) process, which once done enables the enactment of entrepreneurial scripts as more dynamic schemata about entrepreneurship.

### From Scripts to Scripting: A Unification of Views

The fundamental distinction between stocks and flows may be illustrated by the "bathtub" metaphor: at any moment in time, the stock of water is indicated by the level of water in the tub; it is the cumulative result of flows of water into the tub (through the tap) and out of it (through a leak).<sup>3</sup>

Up to this point we have discussed (separately) how entrepreneurial expert scripts can be viewed either statically or dynamically. A helpful analogy to enable additional clarity in understanding how these views of entrepreneurial scripts can be unified therefore comes from the resource-based view literature (Dierickx & Cool, 1989). Known as the "bathtub metaphor," this analogy likens strategic assets to *stocks* of water in a bathtub accumulated from net *flows* over a period of time. So although scripts had been viewed as more dynamic schemas in prior research (Gioia & Manz, 1985), the dynamic dynamism that we seek to apply in our further theorizing concerning entrepreneurial scripts has to do with understanding the *flows* that occur through development (scripting). This is separate from the enactment of the *stocks* (scripts) themselves, which enable action in specific contexts (Gioia & Manz, 1985).

In the entrepreneurship setting, entrepreneurial expert scripts (stocks) exist in the minds of expert entrepreneurs at a given point in time, similar to the picture analogy previously used. We suggest that the existence of these scripts in the minds of entrepreneurs, essentially the accumulation of episodic memories (Baucus et al., 2014), are a cumulative result of scripting (flows): the development of entrepreneurial scripts as influenced by the adaptive situated, action-oriented, and distributed environment in which entrepreneurs find themselves. Hence, the

<sup>&</sup>lt;sup>3</sup> Dierickx & Cool, 1989: 1506

static view of entrepreneurial script stocks, and the dynamic view of entrepreneurial scripting flows, may both be considered in entrepreneurial scripts research.

It is therefore to be expected that as a scientific enterprise, the combination of both script-recognition/enactment, and scripting-development now provide a theoretical platform from which substantively improved explanations can be expected. Specifically, much more precision in the evaluation of entrepreneurial cognitions now appears to be possible. For example, in medical research it is helpful to utilize an MRI to detect the extent to which a negative phenomenon is present (e.g., a tumor). However, it is also helpful to understand the changes that have occurred from time 1 to time 2 by taking this picture twice. And it is often even more helpful for the medical researcher to track the differential growth effects given environmental dynamism (e.g., a cancer drug vs. a placebo)—taking the picture differentially.

Hence, we argue that the foregoing dynamic dynamism argument—theory suggesting that entrepreneurial expert scripts are both detectable (as in Mitchell et al., 2009) and malleable (as argued herein); but also that this malleability results from permeability at the environment/scripts interface—is highly tractable for future research that can explain questions of entrepreneurial action (McMullen & Shepherd, 2006; Mitchell & Shepherd, 2010), reaction (Shepherd & Cardon, 2009; Starbuck, 2009), development (Mitchell & Shepherd, 2012) and demise (Mitchell, Mitchell, & Smith, 2008; Shepherd, 2003). In our view it sets the stage for explanations of variance in entrepreneurs and in entrepreneurship that heretofore have not been considered to be practical. And so,

to further "riff" on our "riff," we conclude with the thought that, in fact, as it concerns entrepreneurial scripts in entrepreneurial cognition research: entrepreneurial scripts are something; and entrepreneurial scripting is something too.

### References

- Abelson, R. P. 1981. Psychological status of the script concept. American Psychologist, 36(7): 715–729
- Baucus, D. A., Baucus, M. S., & Mitchell, R. K. 2014. Lessons from the neural foundation of entrepreneurial cognition: the case of emotion and motivation. In J. R. Mitchell, R. K. Mitchell, & B. Randolph-Seng (Eds.), Handbook of Entrepreneurial Cognition: 254–315. London, UK: Edward Elgar.
- Dew, N., Grichnik, D., Mayer-Haug, K., Read, S., & Brinckmann, J. 2015. Situated Entrepreneurial Cognition. International Journal of Management Reviews, 17(2): 143–164.
- Dierickx, I., & Cool, K. 1989. Asset Stock Accumulation and Sustainability of Competitive Advantage. Management Science, 35(12): 1504–1511.
- Eisenhardt, K. M., Furr, N. R., & Bingham, C. B. 2010. Microfoundations of Performance: Balancing Efficiency and Flexibility in Dynamic Environments. Organization Science, 21(6): 1263–1273.
- Galambos, J. A., Abelson, R. P., & Black, J. B. 1986. Scripts. In J. A. Galambos, R. P. Abelson, & J. B. Black (Eds.), Knowledge Structures: 19–20. Hillsdale, NJ: Lawrence Erlbaum Associates. Inc.
- Gioia, D. A., & Manz, C. C. 1985. Linking Cognition and Behavior: A Script Processing Interpretation of Vicarious Learning. Academy of Management Review, 10(3): 527–539.
- Gioia, D. A., & Poole, P. P. 1984. Scripts in Organizational Behavior. Academy of Management Review, 9(3): 449–459.
- McMullen, J. S., & Shepherd, D. A. 2006. Entrepreneurial Action And The Role Of Uncertainty In The Theory Of The Entrepreneur. Academy of Management Review, 31(1): 132–152.
- Mitchell, J. R., & Shepherd, D. A. 2010. To thine own self be true: Images of self, images of opportunity, and entrepreneurial action. Journal of Business Venturing, 25(1): 138–154.
- Mitchell, J. R., & Shepherd, D. A. 2012. Capability Development and Decision Incongruence in Strategic Opportunity Pursuit. Strategic Entrepreneurship Journal, 6(4): 355–381.
- Mitchell, R. K., Mitchell, B. T., & Mitchell, J. R. 2009. Entrepreneurial Scripts and Entrepreneurial Expertise: The Information Processing Perspective. In A. L. Carsrud & M. Brännback (Eds.), Understanding the Entrepreneurial Mind: Opening the Black Box, vol. 24: 97–137. Springer.
- Mitchell, R. K., Mitchell, J. R., & Smith, J. B. 2008. Inside opportunity formation: enterprise failure, cognition, and the creation of opportunities. Strategic Entrepreneurship Journal, 2(3): 225–242.
- Mitchell, R. K., Randolph-Seng, B., & Mitchell, J. R. 2011. Socially Situated Cognition: Imagining New Opportunities for Entrepreneurship Research. Academy of Management Review, 36(4): 774–776.
- Randolph-Seng, B., Mitchell, R. K., Vahidnia, H., Mitchell, J. R., Chen, S., et al. 2015. The Microfoundations of Entrepreneurial Cognition Research: Toward an Integrative Approach. Foundations and Trends in Entrepreneurship. 11(4): 207–335.
- Shepherd, D. A. 2003. Learning from Business Failure: Propositions of Grief Recovery for the Self-Employed. Academy of Management Review, 28(2): 318–328.
- Shepherd, D. A., & Cardon, M. S. 2009. Negative Emotional Reactions to Project Failure and the Self-Compassion to Learn from the Experience. Journal of Management Studies, 46(6): 923–949.
- Smith, E. R., & Conrey, F. R. 2009. The Social Context of Cognition. In P. Robbins & M. Aydede (Eds.), The Cambridge Handbook of Situated Cognition. Cambridge: Cambridge University Press.

- Smith, E. R., & Semin, G. R. 2004. Socially Situated Cognition: Cognition in its Social Context. Advances in Experimental Social Psychology, 36: 53–117.
- Starbuck, W. H. 2009. Cognitive Reactions to Rare Events: Perceptions, Uncertainty, and
- Learning. Organization Science, 20(5): 925–937.
  Weick, K. E. 1987. Substitutes for corporate strategy. In D. J. Teece (Ed.), The Competitive Challenge: 221–233. Cambridge, MA: Ballinger Publishing Company.

 Table 1.

 Application of Socially Situated Cognition to Entrepreneurial Scripting

Socially Situated Cognition	Entrepreneurial Scripting: Development	Entrepreneurial Scripting: Enactment
Situated	Specific entrepreneurial scripts are developed in a variety of different environmental contexts.	Entrepreneurial scripts are enacted in contextual socio-economic environment based upon the situational cues present.
Adaptive Action- Oriented	Flexible entrepreneurial scripts are developed over time based on feedback from a changing environment.	Entrepreneurial scripts are enacted adaptively as needed based on environment.
Distributed	Entrepreneurial scripts are developed over time in concert with a changing set of other social actors, based on the availability of a changing set of tools in the environment.	Entrepreneurial scripts are enacted collectively with a specific set of social actors based on the availability of social actors and tools in the environment.

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Benjamin T. Mitchell, Ph.D., recently received his doctorate in information and decision sciences from the Carlson School of Management at the University of Minnesota. His dissertation explores the interdependence of codified and personalized knowledge use on knowledge management system success. In addition to examining questions related to knowledge management, Ben's research interests also include cognition, expertise, and how information technologies can help to enable greater human performance. Prior to pursuing a Ph.D. he worked as a Network Operations Analyst at a global network operations center and was involved in the development of courses for online education.

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