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Effectuation, Not Being Pragmatic or Process Theorizing, Remains Ineffectual: Responding to the Commentaries

We appreciate the opportunity to respond to the provocative Dialogue pieces of Read, Sarasvathy, Dew, and Wiltbank (2016; henceforth, "RSDW"); Reuber, Fischer, and Coviello (2016; henceforth, "RFC"); Gupta, Chiles, and McMullen (2016; henceforth, "GCM"); and Garud and Gehman (2016; henceforth, "GG"), each of which makes several claims in defense of effectuation, as well as describes several ways forward in entrepreneurship and process-related theorizing. We respond in a manner consistent with the traditional perspective in management theorizing that "good theory is practical" (Lewin, 1945), where "theory is theory" (Simon, 1967; Van de Ven, 1989) based on our discipline's collective commitment to knowledge production (Suddaby, 2014). In fact, we respond in the tradition of *scientific* theory—its building, its critique, and its defense. Leveraging the logic behind that tradition, we thus *refute every point* contained in RSDW's, RFC's, GCM's, and GG's commentaries and attempt to build on what is common to all theory while celebrating what is valuable in the diversity of theorizing (i.e., in the ways we produce theory).

The 3E framework applies to all proposed theories that claim to be scientific, including those based in pragmatism and those based on a process. The evaluation of effectuation in Arend, Sarooghi, and Burkemper (2015, henceforth, "ASB") is fair, objective, scientific, and comprehensive; most definitely considers the practical implications, human actions, and dynamic system states of its targets; and accommodates the features of process

research. None of the four Dialogue commentaries on ASB offers any actual evidence otherwise but, instead, relies on false implications. We respond to each commentary, separately and in relevant groupings, below.

In response to the points made by RSDW, we reply as follows: The six assumptions in ASB emerge from RSDW's papers (often quoted in ASB), *not* from the 3E framework, and, thus, simply remain true.¹ The ASB description of effectuation, including its logic, assumptions, paths, and states, all emerge from RSDW's papers and are accurately construed; for example, contingencies do affect the process, and are not depicted as paths. The effectuation research reviewed in ASB is fair, accurate, complete, standard (e.g., in the tradition of Short, Ketchen, Shook, & Ireland, 2010, and others), and covers as wide a spectrum as the standard and explicit constraint imposed allowed (i.e., based on the *Financial Times* forty-five listed journal articles). We believe if a proposed theory is to be established, it needs to appear in the top-tier outlets, which effectuation has yet to do in any significant manner.² The five major directions ASB prescribe for improving effectuation are new, based on prioritization emerging from ASB's critique, and surprisingly appear to be repeated by

¹ We note several inconsistencies with RSDW's counterpoints—for example, Sarasvathy (2001) refuted her own Proposition 1 and supported ASB's assumption #6 in her Propositions 2 and 3, explicitly linking effectuation with success, and we further note that it was expert—read *successful*—entrepreneurs who were supposed to be the basis for effectuation theory. Also, note that not only does that approach appear to sample on the dependent variable, but it also appears to lead to the same false optimism described in Hirschman's (1967) "Benevolent Hiding Hand." ASB's assumption #1 is not about a priori personality traits; rather, it concerns the abilities that RSDW state their entrepreneurs possessed, although such abilities appear only *ex post* (which poses another problem for effectuation theory, but not for the 3E framework).

² Regarding ASB's Table 2 and 2b, these are available upon request from the authors, as mentioned and described in footnotes 8 and 9 of ASB, and were reviewed by this journal prior to being edited out for space considerations. They depict a true, objective, and standard measure of the impact of effectuation on academia, with "the impact on top-tier journals" being a well-established measure in the literature. The tables contain not twenty-six but twenty-nine works. Further, we question why RSDW only use "wider" literature sources, like Google Scholar, when it suits their purposes (e.g., they ignored the 7000+ hits on "sweat equity" when they implied that this is a "black box" while detailing their seventh direction). Finally, we question why RSDW wish to mislabel us, or the 3E framework, under "positivism" when alternatives, like critical realism, clearly apply (Adler, Forbes, & Willmott, 2007).

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RSDW in their own directions. Overall, the logical conclusion is that effectuation remains ineffectual (*proof*: we assert the 3E framework applies to all proposed scientific theory, and if effectuation is one, then it has been critiqued correctly as ineffectual; *alternative proof*: if RSDW believe the ASB depiction of effectuation is correctly evaluated as ineffectual, and if ASB's depiction is correct as we assert, then effectuation is again a "scarecrow").

In response to the points made by RFC, we reply as follows: The reality that "theories evolve" (Reuber et al., 2016: 1) is in no way inconsistent with the necessity to evaluate them at regular intervals. ASB very much considers productive paths not yet taken in effectuation in the five grounded directions provided. And ASB very much recognizes effectuation as evolving (e.g., in footnotes 1 and 8). RFC's proposed alternative criterion focusing on whether constructs have "stabilized" (i.e., are consistently defined, clear in scope, with clearly depicted relationships) is explicitly addressed in ASB's 3E framework (see E2). The 3E framework is a robust theory-assessment tool with criteria that are agnostic about whether a theory is true (which is a major concern of pragmatism), making RFC's implication unfounded (and, in fact, ASB refers to "practical" issues more than to "truth" issues). We point to RFC's own statement about effectuation theory presenting *no* evidence of its impact on entrepreneurial practice as itself proof that effectuation is *not* a pragmatic theory (because such a focus on practical impact would be the primary concern). Thus, we believe that the common defense of each of the first two Dialogue pieces that effectuation is a different type of theory—a "pragmatic" one—and, as such, is not open to a critique from the 3E framework holds no intellectual weight based on any premises provided.

BOATS WITH HOLES SINK AT HIGH TIDE

Three scientific approaches to defend a proposed theory exist. Defense One: *prove that alternative theory-assessment criteria apply and are met*. This defense consists of providing the "correct" criteria (and proving why those apply rather than the proposed criteria), and then proving the proposed theory meets them. Defense Two: *accept that the given assessment criteria do apply and prove these are actually met*. This defense consists of proving that the original criteria are met with alternative

evidence, and then explaining why there is a difference in evidence regarding whether the criteria are met. Defense Three: *prove that the proposed theory was inaccurately depicted and that an accurate depiction meets the given criteria*. This defense consists of explaining what the correct depiction of the theory is and proving it meets all of the criteria, and then explaining how the discrepancy of depiction could have arisen. The first two Dialogue commentaries appear to pick pieces of these defense approaches without ever completing any one of them; as such, they leave the impression that effectuation-as-a-theory is ultimately indefensible.

Further, RSDW's and RFC's suggested directions lack any foundation and any basis for prioritization, because they provide no logic identifying weaknesses in effectuation. (ASB's directions are solidly grounded in the weaknesses arising from its critique of effectuation). RSDW's list of seven areas arise out of the subjective interpretation of their own work and a questionable wider literature review, and so lacks any objective, scientific, or practical logic. RFC's bases for their directions also raise questions. The authors assert that a better way to "take stock" (Reuber et al., 2016: 538) of effectuation would involve "recognizing its dynamic nature" (Reuber et al., 2016: 536) by focusing on assessing whether constructs are stable. It appears the assertion is groundless. First, the evaluation of an evolving entity at any point in time does not conflict with the fair assessment of its use at that point in time, nor does it conflict with its evolution (in fact, it helps). Second, there is nothing about the 3E framework that assumes that the target of critical analysis cannot, or should not, evolve. ASB evaluates a proposed theory at a point in time, being used by real people in that form then, from which justified directions for evolution can then be logically argued. Third, taking stock of effectuation after twelve years of evolution allows significant settling of its characteristics. Fourth, ASB does recognize explicitly that effectuation continues to evolve.

Further, RFC assert that directions involving "habit"—as an important part of what pragmatism is—are well-founded. That assertion also appears baseless. First, the pragmatist philosophy remains underdefined in RFC, and Gross (2009) actually focuses on "problem solving" as his version of that very splintered philosophy. Second, the more accurate quote from Gross (2009:

366) states that responsive action rather than pragmatism itself involves habit, and that even that claim may be controversial. Third, effectuation appears to already consider habits in its descriptions of decision-making “logics” (e.g., in the affordable loss approach). Fourth, habit appears well-studied outside effectuation, as constructs like heuristics, routines, and operating capabilities. Fifth, the direction of studying transitions between habit and creativity appears well-studied already in the form of ambidexterity and similar concepts involving reflective learning.

THE EYE SEES NOT ITSELF BUT BY PRAGMATISM

Pragmatism is invoked in RSDW’s and RFC’s commentaries as some sort of defense, and that is unfortunate. It is unfortunate because (1) such a defense is inconsistent with the apparent management theorizing tradition focused on the one explanation-centered standard on which we build knowledge, and (2) pragmatism is both under-defined and apparently misunderstood in their commentaries. Pragmatism is a somewhat vague philosophy of science that is like a cloud from which RSDW and RFC each chose a particular speck of dust; for example, over a century ago, it had already splintered into thirteen forms, most of which were defined by their notions of the nature of truth (Lovejoy, 1908). As such, it seems RSDW and RFC share a misunderstanding of pragmatism as being *not* about truth and truth finding, when, in fact, it is (e.g., there is a pragmatic theory of truth, and pragmatist social science seeks truthful knowledge about how things work in social life [Watson, 2011]).

Besides that basic misunderstanding, RSDW and RFC also share a misperception that effectuation is a pragmatic theory; *it is not*. The literature reveals no support for such a categorization; instead, it refutes the idea that effectuation is a true pragmatic theory. For example, Watson (2013: 25) notes that while effectuation acknowledges pragmatism as one part of its intellectual lineage, effectuation diverges from pragmatism in important ways; for example, pragmatic non-linear patterns are expected to apply to managers as much as to entrepreneurs in the latter, but not in the former. Steyaert (2007: 465) notes that effectuation (1) is only partly grounded in pragmatist philosophy and (2) has *not* made a practical impact after twelve years (supporting RFC’s similar

contention), which is an outcome that is inconsistent with that philosophy. Finally, RSDW and RFC both summarize their versions of pragmatism in a few words, but Papini notes that “whoever should define pragmatism in a few words would be doing the most anti-pragmatic thing imaginable” (2005: 122).

AMBITION SHOULD BE MADE OF STERNER STUFF

Given the unusual challenge of having to react to a table of points (see RSDW’s piece), we employ a suitably unusual response here. We ask the reader to consider effectuation *not as a theory* but, rather, as a collection of marketing choices that includes its construction as an umbrella of previously established concepts, its misrepresentation of what it contrasts with, and its “form” as the kind of message that people want to hear. Doing so provides a basis for the rejection of all three parts of RSDW’s table.

We reject the first part of their table for two reasons. First, it misrepresents the widely accepted critique that effectuation has not acknowledged or built on previous work, and it fails to show specifically how effectuation has added original value. Second, it shows effectuation as self-servingly linked to known ideas (e.g., experimentation, risk sharing, making do, adaptability, action orientation, loss aversion, and so on), *without* explaining why connecting to them matters. Simply pointing out that effectuation is related to these ideas amounts to a tautology where effectuation is related because it is defined by the ideas of others (e.g., even the Uppsala model mentioned in RSDW was an entrepreneurial decision making under uncertainty approach—an approach similar in function to effectuation—that predated effectuation by some twenty years).

We reject the second part of their table for two reasons. First, claiming some level of empirical support is also tautologous because such support of its component parts, which have been well established in prior work (e.g., on experimentation), is expected. Second, the works cited do not provide significant support for effectuation as a unique theory.³ Nearly all of the empirical studies consider effectuation as a logic, a venture creation mode, a construct, or an approach; none consider it as

³ A table analyzing the extra empirical works is available upon request from the authors.

a theoretical system. Consequently, most of the empirical findings are based on comparisons of effectuation with other modes of action, especially what has been defined as "causation." There is only one study in the table that qualitatively supports the superiority of effectuation over causation (Kalinic, Sarasvathy, & Forza, 2014). In the other studies effectuation is analyzed descriptively, with its effectiveness compared to other approaches in a contextual or stage-dependent manner. Also note that we discovered a further flaw of effectuation in the process (and it is a logical flaw)—that is, "expertise" is hypothesized to reduce the uncertainty faced by the entrepreneur, yet such reduced uncertainty would lower the need to apply effectuation as the very process that expert entrepreneurs are supposed to use more but who should then use less!

The marketing choice by effectuation scholars that provides both empirical support and educational attraction centers on contrasting effectuation with an approach described as some "thing" labeled causation. For example, the firm inflexibility characterized in the measurement of causation has aided the empirical support for effectuation being favored in surveys by so-called expert, pivoting entrepreneurs. However, it is worthwhile to note that causation is a rather poor and overly simplistic caricature of microeconomics, whether considered as positivist or not. For example, consider that even the "heart" of effectuation (as RSDW describe it)—defined by the often delusional belief that the entrepreneur can actively change his or her world and future—is actually very well understood in the real economic positivist tradition (e.g., in Schumpeter's [1934] creative destruction, in Kirzner's [1985] focus on the available means described by Penrose [1959], and in Shackle's [1955] action taking under uncertainty).

Finally, we also reject the third part of their table for two reasons. First, it misrepresents ASB's critique that effectuation does not establish practitioner value and, instead, presents data about pedagogical adoption and website and press popularity. It is easy to explain the draw of effectuation's empowering message for the public—a message that anyone can be a successful entrepreneur if he or she just follows a simple process. However, numbers of books, courses, instructors, and Internet eyeballs do not actually constitute evidence of practitioner value. Second, there is little evidence to date that all of the effectuation-based education has actually made a positive impact, either in an absolute sense or in a relative sense, as

compared to the impact of alternative, noneffectual entrepreneurship education approaches.

We would be remiss if we did not comment on a few additional choices made by RSDW to defend effectuation, as appear in the RSDW piece. For example, in comparing ASB's Figure 1 to Sarasvathy's textbook Figure 12.2 (Sarasvathy, 2008: 274), the ASB figure covers all but one of the "boxes" from the original logic (n.b. we do not explicitly cover the social welfare box) and adds only the factors (e.g., a feedback loop) that were implicit in that logic; the assumptions asserted in ASB about effectuation are valid (e.g., regarding #2, nonpredictive control is part of effectuation's definition as not needing to predict a controllable future); and ASB's directions cover all of RSDW's directions (e.g., RSDW's direction 4 is covered in ASB's directions 2 and 5 on goal setting and cooperative abilities). Thus, RSDW's choice to allege "misconstrual" (Read et al., 2016: 528) as a defense and to ignore their own quotes and overlapping ideas all appear to be off message.

PRAGMATIC DIRECTIONS FOR THE COLLABORATORS

Further directions for effectuation's evolution, based on our critique of RSDW's and RFC's commentaries, acknowledge the tradition in management for the need to have a reverence for science and its method if one wishes to contribute to theory. Direction One: *choose one standard defense logic (of the three outlined above) and follow through on it completely.* Direction Two: *focus on unifying the explanation-centric approach to theory that has been traditional in management, rather than splintering it, but if the latter is chosen, be very specific and consistent about what that splintering is (rather than what it is not) and why such an unusual choice is valuable to the field at this point.* Direction Three: *be academic in spirit and practice; refrain from stating something as "fact" without providing solid evidence (e.g., that effectuation is a pragmatic theory), refrain from sticking the proposed theory's name on something and coronating it a "thing" (e.g., there is no such thing as an "effectual spirit," and we believe that kind of branding is not science), and refrain from usurping previous ideas (e.g., ambidexterity) by stating that they somehow model effectuation's unproven concepts.* Direction Four: *rather than incorporating goal hierarchy, connect effectuation to an established process (like the garbage-can model); for example, for the idea that solutions and problems—*

goals and means—can connect in an individual, an experiential process is likely a better fit.

A PROCESS OF ELIMINATION

We now turn to the last two Dialogue pieces, both of which leverage the idea of process theory as a defense for effectuation. For hundreds of years there has been one core conceptualization of theory, one that has included processes, across science—in chemistry and biology (e.g., diffusion models)—and social science (e.g., in game-theoretic models of decision making), even encompassing probabilistic and time-dependent relationships among observables. Apparently, to some, that all changed with one chapter in one book, as suddenly there was a second fundamental type of theory then called “process theory” by Mohr (1982). At the time, this “incredible revelation” was met with a dull thud—as evidenced by the contents of four published reviews (Hendrickson, 1983; McKiernan, 1984; Pfeffer, 1983; Robertson & Macdonald, 1984), all of which seemed to find that the poorly referenced, underargued assertion of the existence of a second type of theory was a somewhat desperate attempt to find some “stability of results across research studies” (Pfeffer, 1983: 324), and that Mohr nevertheless believed in a core concept that all theory “should be able to provide stable, consistent prediction of behavior” (Hendrickson, 1983: 706). As such, we question the reverence of Mohr’s process theory by GCM and GG (along with the unwarranted attacks on variants like the so-called synthetic theorizing of Baron, Eisenhardt, and others). We question why scholars who worry about the promotion of one type of theorizing at the expense of others are happy to do just that themselves.

We agree with the constructive and inclusive approach of Langley (1999: 691) and others who draw on Weick (1979) and acknowledge that there exists one definition of theory, where theory is supposed to be “accurate, parsimonious, general and useful” (i.e., addressing E2 and E3 in the 3E framework), with multiple strategies to get to it, including process research, and that theory building involves data-driven generalization (E1, E2, and E3), theory-driven hypothesis testing (E3), and inspiration (E1 and E2). In other words, we see the explicit agreement from top scholars in process research that the assessment criteria in the 3E framework do apply. How could they not? Does process research-based theory not build on valid

observation (E1)? Does it not explain phenomena drawing on units (e.g., events), laws (e.g., probabilistic relationships), boundaries, states (e.g., times when measurements and interventions can occur), assumptions, and logic (E2)? Does it not seek to establish its value in generalization and in increasing the understanding of phenomena for its stakeholders (E3)? If it doesn’t, how exactly is what some call process theory a form of science?

CATEGORICAL DELUSIONS OF GRANDEUR

First, neither GCM nor GG prove that effectuation fits their definition of a process theory. For example, effectuation does not meet the requirement for time ordering to be critical (Van de Ven & Engleman, 2004) or the requirement for a listing of ingredients and a recipe that tells how Y occurs whenever X does (Mohr, 1982). In fact, Moroz and Hindle even note that Sarasvathy’s hedging places the “roots of effectual logic within an equilibrium-based perspective” (2012: 804).⁴

Second, neither GCM nor GG prove the existence of a set of papers describing a process that occurs on some separate ontological and epistemological plane, as effectuation’s set of papers fails to do as well. In fact, McMullen (the M in GCM) and Dimov’s (2013) Figure 1 depicts how the same “observation space” (read the same idea of reality and knowledge) can be divided into both variance- and process-based research.

Third, the “rich” depictions of process research (in contrast to the alleged stark ones of variance research) as somehow a superior form of capturing a phenomenon, and thus generating better understanding, are suspect. The reality is that all research papers are subject to the same page-length restrictions; that while qualitative data may paint wonderful pictures, quantitative data also provide deep insights; and that all

⁴ There are several instances in the work of effectuation scholars that clearly demonstrate a variance-based logic. First, the causation-effectuation dichotomy is written in variance-based terms as the comparative propositions of Sarasvathy (2001). Second, Read, Dew, Sarasvathy, Song, and Wiltbank’s (2009) meta-analysis of effectuation and venture performance is based on the premise that there is an inherent variation in the extent to which firms or entrepreneurs follow an effectual logic. Third, Sarasvathy, Kumar, York, and Bhagavatula (2014) acknowledge that empirical measures of effectuation are necessary, citing Chandler, DeTienne, McKelvie, and Mumford’s (2011) developed measure of effectuation. Finally, RDSW’s table of effectuation research contains many studies that have followed variance-based logic.

research, both empirical and theoretical, involves simplifying reality in order to focus on important factors (e.g., events and variables) and relationships (e.g., whether linear or nonlinear, sufficient or necessary). No one type of research (e.g., variance or process) dominates all others for the examination of phenomena; complementarity is desired—for example, “answers to process research questions tend to be meaningless to their users without an answer to their corresponding variance theory questions” (Van de Ven & Engleman, 2004: 355).

LABEL IT FALSE

Many of the arguments in GCM and GG are rooted in mislabeling; we address and correct several of those issues here. First, a “system state,” even a stable one, can be an “event” or any other theoretical or real (naturally or artificially delineated) intermission where field measurements can be taken or managerial interventions can be done. There is absolutely no requirement for a strict equilibrium (i.e., where no change occurs). As such, any argument that the 3E framework does not accommodate processes, based on mentioning the term *state*, is meritless.

Second, we do admit to describing what effectuation is supposed to model as “a process”; that does not, however, imply that we consider effectuation to be a process theory.

Third, labeling the language in ASB as positivist and normal science, and the 3E framework as variance based or strictly positivist, is simply wrong. We were inclusive, appealing not only to those writing standard theoretical papers who use propositions (Delbridge & Fiss, 2013) but also to others not doing so by drawing on process scholars like Pentland (1999), and by referring to process ninety-four times (which, according to GCM, implies that it plays “a highly influential role” [2016: 541] in the 3E framework), in order to argue for a shared core of “what theory is” across approaches.

Fourth, equating theorizing with theory is misleading; we agree that there are many ways to *theorize* (i.e., what one does to produce a theory; Swedberg, 2012), but that in no way implies that there are many types of theory (in fact, Swedberg’s phases and rules are consistent with the 3E framework). An appeal by GG to DiMaggio’s (1995) “theory types” does not help either, since the definition of “narrative theory” involves empirical testing and

scope condition delineation—assessment criteria straight out of the 3E framework.

Fifth, the idea that “performativity” is another theory-on-another-plane is also misleading. Bohr himself notes that traditional measures can be used to study the phenomena defined as such (see Barad, 2003: 814), making the 3E framework applicable (and, in fact, Van de Ven and Poole [2005] rightly point out the ironies of the performative approach in that words do reify these processes *ex post* and so a representational evaluation can be done).

Sixth, performative utterances (e.g., I name this ship “Poseidon”) are abstractions (Austin, 1962: 146) and can certainly be evaluated in terms of being right or wrong, especially *ex post* (Austin, 1962: 145), as could any “theory” describing action.

Seventh, the 3E framework does not screen out observations of any type; it is a theory-assessment framework open to all valid observations (in E1).

Eighth, the inference that the 3E framework negatively affects work on “grand challenges” is wrong. We are very much interested in addressing such wicked problems in reality, with or without formal academic theorizing (as social entrepreneurs have done for decades), and see no reason why the 3E framework cannot help guide formal theory building relevant to these phenomena. Just because GG label such challenges performative, where the focus is on action, does not mean any one approach has a claim; all science, certainly all applied science, is about the intention to intervene in the world, and that certainly fits well with the engineering-friendly 3E framework.

DIRECTIONS TO IMPROVE THE 3E FRAMEWORK

It is valuable to consider how to leverage the 3E framework further. (We were disappointed that the Dialogue authors did not offer specific suggestions for improving the framework.) One further refinement that could be made is to add the evaluation of any proposed theory on its “internal coherence” among the framework criteria. For example, Burrell and Morgan (1979) spoke to a need for fit among the assumptions over ontology, epistemology, methodology, and “human nature” in a theory’s approach. One further way to leverage the 3E framework would be to vary its depth of application depending on whether the proposed theory is only “partial” or “mid-range,” versus fully formed.

AN EFFECTIVE WAY FORWARD

We wish to build on the sentiments of Delbridge and Fiss to find “a willingness to engage constructively across a range of approaches to theorizing, rather than a defensive positioning” (2013: 330). We find it disappointing that the defenses in the four Dialogue commentaries to a fair and explicit critique of one proposed theory have been based on divisive arguments that propose that no core of “what theory is” exists (and upon which an assessment framework can be built). The authors assert that the targeted proposed theory is somehow impervious to criticism because it is alleged to be a new type “X” of reality/knowledge/phenomenon (e.g., pragmatic or process based), yet not so new as to lose the benefits of the label “theory.” All that without evidence that the proposed theory fits the specifics of X, if there was any consensus on what X was to begin with. All without providing a set of alternative criteria that needs to have zero overlap with the offered framework (and proving that the proposed theory meets all such alternative criteria). And all apparently violating a consensus on “what theory is” that has existed for hundreds of years across diverse fields of research, including those that study X-type phenomena (e.g., pragmatic and process-based phenomena).

We want to engage constructively, and our intention in providing the 3E framework was to do just that. We based the framework on how top management scholars have used the term *theory*, focusing on the papers that describe how to build better theory, as well as those centered on how to assess it. We certainly did not offer the framework to be exclusionary. We value diversity in theorizing. But, much like how “intellectual property” is defined, we also respect that only specific “things” can be theory—those contributions centered on novelty, usefulness, and nonobviousness (where usefulness stems from coherence as a description and explanation of experienced phenomena; Gioia & Pitre, 1990). The 3E framework is offered as one step toward a brighter future for social science theorizing, a future that is seen by standing on the shoulders of the giants on whose work this framework draws. It is a future where the research spanning the relevant ranges of ontology, epistemology, method, and assumption can be complementary within a “mosaic of understanding” of the many dimensions of any given phenomenon, and where such a range of understanding can then be accessed, in a customized

way, to apply in a specific use (e.g., by a manager, policy maker, and so on).

We also want to engage constructively with newer fields like entrepreneurship. One way to do that is to provide a general and flexible theory-building framework to help move such fields forward toward differentiation and away from simply being the application phenomena (or dumping grounds) of the haphazardly applied theories of related disciplines. Another way to do that is to provide an objective and fair way to assess proposed theories and partial theories in a growing field; as a result, the scholars (and journal referees) in that field should be able to more efficiently identify better proposals, as well as identify where current proposals leave gaps to be filled by the next wave of work. We believe that the 3E framework provides those ways.

In closing, we thank RSDW, RFC, GCM, GG, and AMR for allowing us the opportunity to engage in a vigorous dialogue that will hopefully aid in building better theory, especially better entrepreneurship theory, in the future.

REFERENCES

- Adler, P. S., Forbes, L. C., & Willmott, H. 2007. Critical management studies. *Academy of Management Annals*, 1: 119–179.
- Arend, R. J., Sarooghi, H., & Burkemper, A. 2015. Effectuation as ineffectual? Applying the 3E theory-assessment framework to a proposed new theory of entrepreneurship. *Academy of Management Review*, 40: 630–651.
- Austin, J. L. 1962. *How to do things with words*. Oxford: Clarendon Press.
- Barad, K. 2003. Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs*, 28: 801–831.
- Burrell, G., & Morgan, G. 1979. *Sociological paradigms and organizational analysis: Elements of the sociology of corporate life*. London: Heinemann.
- Chandler, G. N., DeTienne, D. R., McKelvie, A., & Mumford, T. V. 2011. Causation and effectuation processes: A validation study. *Journal of Business Venturing*, 26: 375–390.
- Delbridge, R., & Fiss, P. C. 2013. Styles of theorizing and the social organization of knowledge. *Academy of Management Review*, 38: 325–331.
- DiMaggio, P. J. 1995. Comments on “What theory is not.” *Administrative Science Quarterly*, 40: 391–397.
- Garud, R., & Gehman, J. 2016. Theory evaluation, entrepreneurial processes, and performativity. *Academy of Management Review*, 41: 544–549.
- Gioia, D. A., & Pitre, E. 1990. Multiparadigm perspectives on theory building. *Academy of Management Review*, 15: 584–602.
- Gross, N. 2009. A pragmatist theory of social mechanisms. *American Sociological Review*, 74: 358–379.

- Gupta, V. K., Chiles, T. H., & McMullen, J. S. 2016. A process perspective on evaluating and conducting effectual entrepreneurship research. *Academy of Management Review*, 41: 540–544.
- Hendrickson, L. U. 1983. Explaining organizational behavior. *Personnel Psychology*, 36: 706–709.
- Hirschman, A. O. 1967. *Development projects observed*. Washington, DC: Brookings Institution.
- Kalinic, I., Sarasvathy, S. D., & Forza, C. 2014. "Expect the unexpected": Implications of effectual logic on the internationalization process. *International Business Review*, 23: 635–647.
- Kirzner, I. 1985. *Discovery and the capitalist system*. Chicago: University of Chicago Press.
- Langley, A. 1999. Strategies for theorizing from process data. *Academy of Management Review*, 24: 691–710.
- Lewin, K. 1945. The Research Center for Group Dynamics at Massachusetts Institute of Technology. *Sociometry*, 8: 126–135.
- Lovejoy, A. O. 1908. The thirteen pragmatisms. *Journal of Philosophy, Psychology and Scientific Methods*, 5(2): 29–39.
- McKiernan, P. 1984. Lawrence B. Mohr: Explaining organizational behavior (book review). *Organization Studies*, 5: 374–375.
- McMullen, J. S., & Dimov, D. 2013. Time and the entrepreneurial journey: The problems and promise of studying entrepreneurship as a process. *Journal of Management Studies*, 50: 1481–1512.
- Mohr, L. 1982. *Explaining organizational behavior*. San Francisco: Jossey-Bass.
- Moroz, P. W., & Hindle, K. 2012. Entrepreneurship as a process: Toward harmonizing multiple perspectives. *Entrepreneurship Theory and Practice*, 36: 781–818.
- Papini, G. 2005. What pragmatism is like. In R. B. Goodman (Ed.), *Pragmatism: Critical concepts in philosophy*, vol. 1: 122–129. New York: Routledge.
- Penrose, E. T. 1959. *The theory of the growth of the firm*. New York: Wiley.
- Pentland, B. T. 1999. Building process theory with narrative: From description to explanation. *Academy of Management Review*, 24: 711–724.
- Pfeffer, J. 1983. Explaining organizational behavior. *Administrative Science Quarterly*, 28: 321–325.
- Read, S., Dew, N., Sarasvathy, S. D., Song, M., & Wiltbank, R. 2009. Marketing under uncertainty: The logic of an effectual approach. *Journal of Marketing*, 73(3): 1–18.
- Read, S., Sarasvathy, S. D., Dew, N., & Wiltbank, R. 2016. Response to Arend, Sarooghi, and Burkemper (2015): Co-creating effectual entrepreneurship research. *Academy of Management Review*, 41: 528–536.
- Reuber, A. R., Fischer, E., & Coviello, N. 2016. Deepening the dialogue: New directions for the evolution of effectuation theory. *Academy of Management Review*, 41: 536–540.
- Robertson, R. D., & Macdonald, H. M. 1984. Explaining organizational behavior. *Social Science Quarterly*, 65: 910–911.
- Sarasvathy, S. D. 2001. Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26: 243–263.
- Sarasvathy, S. D. 2008. *Effectuation: Elements of entrepreneurial expertise*. Northampton, MA: Edward Elgar.
- Sarasvathy, S. D., Kumar, K., York, J. G., & Bhagavatula, S. 2014. An effectual approach to international entrepreneurship: Overlaps, challenges, and provocative possibilities. *Entrepreneurship Theory and Practice*, 38: 71–93.
- Schumpeter, J. 1934. *Capitalism, socialism, and democracy*. New York: Harper & Row.
- Shackle, G. L. S. 1955. Business men on business decisions. *Scottish Journal of Political Economy*, 2(3): 32–42.
- Short, J. C., Ketchen, D. J., Shook, C. L., & Ireland, R. D. 2010. The concept of "opportunity" in entrepreneurship research: Past accomplishments and future challenges. *Journal of Management*, 36: 40–65.
- Simon, H. A. 1967. The business school: A problem in organizational design. *Journal of Management Studies*, 4: 1–16.
- Steyaert, C. 2007. "Entrepreneurship" as a conceptual attractor? A review of process theories in 20 years of entrepreneurship studies. *Entrepreneurship & Regional Development*, 19: 453–477.
- Suddaby, R. 2014. Editor's comments: Why theory? *Academy of Management Review*, 39: 407–411.
- Swedberg, R. 2012. Theorizing in sociology and social science: Turning to the context of discovery. *Theory Society*, 41: 1–40.
- Van de Ven, A. H. 1989. Nothing is quite so practical as a good theory. *Academy of Management Review*, 14: 486–489.
- Van de Ven, A. H., & Engleman, R. M. 2004. Event- and outcome-driven explanations of entrepreneurship. *Journal of Business Venturing*, 19: 343–358.
- Van de Ven, A. H., & Poole, M. S. 2005. Alternative approaches for studying organizational change. *Organization Studies*, 26: 1377–1404.
- Watson, T. J. 2011. Ethnography, reality and truth: The vital need for studies of "how things work" in organizations and management. *Journal of Management Studies*, 48: 202–217.
- Watson, T. J. 2013. Entrepreneurial action and the Euro-American social science tradition: Pragmatism, realism and looking beyond "the entrepreneur." *Entrepreneurship & Regional Development*, 25: 16–33.
- Weick, K. 1979. *The social psychology of organizing*. Reading, MA: Addison-Wesley.

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