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# Effectuation and Over-Trust: Response to Sarasvathy and Dew

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**In their response to our article, Sarasvathy and Dew (S&D) agree with us that effectuation supposes over-trust and yet claim that trust is irrelevant to an effectual entrepreneur. They further claim that our approach to entrepreneurship is trait based. We respond to these comments by pointing out the more subtle ways in which entrepreneurs deal with trust. In addition, while acknowledging the utility (and limitations) of a trait-based approach in advancing entrepreneurship theory, we refute their assertions that our paper is based on this approach. Finally, we address the “alternate” behavioral assumptions that S&D advance. Independent of the merit of these alternate assumptions, they are not contradicted in our article. We believe that these assumptions need to be developed further to contribute to a debate on their merits for advancing theory building in entrepreneurship.**

**I**n response to our article (Goel & Karri, 2006), Sarasvathy and Dew (2008; hereinafter referred to as S&D) raised three issues relevant in varying degrees to the link between over-trust and effectual logic. In the process of elaborating upon effectual reasoning, S&D make assumptions about effectual processes that lead them to conclude that over-trust is *irrelevant* for effectual reasoning. Second, S&D argue why psychological characteristics of entrepreneurs are irrelevant when entrepreneurship is viewed from an effectual lens. Finally, though unrelated to our central thesis, S&D suggest a set of behavioral assumptions for theory development in entrepreneurship research.

In our response, we point out at length some of the shortcomings of the assumptions made by S&D in conceptualizing effectual reasoning process, and the logical fallacies of S&D's arguments that lead them to conclude that (over or under) trust is irrelevant for effectuators.<sup>1</sup> This appears below. Next, S&D state that studying psychological characteristics of entrepreneurs is *not* relevant for advancing theories of entrepreneurship. We on the other hand argue that a focus on psychological traits *to the exclusion of everything else* is limiting to the advancement of theory building in entrepreneurship. We suggest that it is important to study the psychological characteristics, such as attitudes, that contribute to the cognitive infrastructure of entrepreneurs, fully acknowledging that

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1. For the purpose of this paper, we use the term “entrepreneurs” and “effectuators” interchangeably. Effectuators are entrepreneurs who use effectual reasoning. Although entrepreneurs use both effectual logic and causal logic simultaneously, our assumption is that on a *net* basis entrepreneurs use effectual logic more than causal logic.

individual psychological characteristics and attitudes change over time (Krueger, 2000; Krueger & Dickson, 1994; Mitchell et al., 2002, 2004) (and nothing in Goel and Karri [2006] argued for invariance of these characteristics). We also point out why the behavioral assumptions stated by S&D, while not violated by our article, are currently underdeveloped. Broadly, contrary to S&D's implication, Goel and Karri (2006) did not contradict any of the principles of effectuation as proposed by Sarasvathy (2001). Although in this response we reiterate in places how our position is true to the published principles of effectuation, we refer S&D to our paper rather than repeating the arguments in Goel and Karri (2006).

### **Restrictive Assumptions and Misleading Conclusions (S&D's Version of Effectual Reasoning)**

S&D arrive at a conclusion that trust is irrelevant or unnecessary for entrepreneurs *ex ante* if they use effectual logic. This position is restrictive, without any tangible results in analytical depth. Our position is consistent with decades of research in individual (and social) action that establishes that *all* human action (entrepreneurial or not) requires trust.<sup>2</sup> If human beings require trust to act, then entrepreneurs require trust as well. In other words, trust cannot be “wished away” in human action. We show below that effectuation does not need to assume an absence of trust to describe entrepreneurial decision making.

S&D's argument that trust or over-trust is irrelevant and unnecessary for effectual entrepreneurs is based on two assumptions and one assertion. First, S&D assume that trusting is in the exclusive domain of predictive strategies. Because trust involves an expectation that the parties involved will keep their end of the bargain and because the propositions developed by Goel and Karri (2006) suggest that effectuators are likely to over-trust, S&D assume that trusting falls under the domain of predictive strategies. Second, S&D assume that effectual reasoning requires that *both* parties to the transaction use nonpredictive strategies and effectual reasoning. This, according to them, “obviates the necessity to place substantial bets” (S&D, p. 729). Presumably, according to S&D, trusting *ex ante* is one of the substantial bets that is avoided by employing the assumption. Finally, S&D assert that effectuators adopt intelligent altruism<sup>3</sup> (Simon, 1993) as a rational strategy and that effectuators cue-in intelligent altruism in others. Let us examine the limitations of these assumptions and assertion.

### **Decision to (Over) Trust is Not a Predictive Strategy**

S&D's arguments lead to the conclusion that (over) trust is unnecessary and irrelevant under the framework of effectual reasoning because effectual reasoning is not predictive in nature, and the decision to trust, according to them, is predictive. We believe that this warrants further scrutiny. First, we maintain that none of the arguments presented by Goel and Karri (2006) with respect to effectual logic and its application to over-trust suggests that effectual reasoning is a predictive strategy (e.g., Goel & Karri, 2006, p. 480). For instance, S&D debate at length by expanding on the Simplot story with details on the

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2. For a recent perspective on this in an entrepreneurial context, see special issue on trust in *Entrepreneurship Theory and Practice* (Welter & Smallbone, 2006).

3. S&D, however, did not develop rigorous arguments regarding the construct of “intelligent altruism” as applied to entrepreneurs. It is not clear from S&D's arguments with respect to the relationship between over-trust and altruism in general and intelligent altruism in particular.

events of Simplot's business experience to imply that Goel and Karri (2006) misrepresented principles of effectual logic as outlined by Sarasvathy (2001). S&D's objection appears to be based on our usage of the phrases from the original source (Anders, 2004) such as "try everything" and "bet on his hunches." These phrases were used to merely illustrate the stark differences between an entrepreneur driven by effectuation and one driven by causation. The additional details on Simplot story that S&D provide only serve to corroborate these labels on the two key players in that story. S&D's broader implication, however, is inaccurate, as would be evident from a reading of Goel and Karri (2006).

However, it is useful to examine another source of S&D's objection, which is our usage of "placing a bet" against opportunism (Goel & Karri, 2006, p. 479). We argued that effectuators *deliberately* go in the opposite direction of a Williamsonian entrepreneur, who starts with a premise that other actors are always opportunistic. Instead of believing that actors are always opportunistic, effectuators depose trust in others subject to the affordable loss constraint. In other words, "placing a bet" in this context does not imply, of course, that effectuators gamble recklessly. Our position, therefore, is that effectuators *do* place bets (i.e., over-trust), but these "bets" have subjectively recognizable stakes that do not exceed affordable loss criterion at that point of time.<sup>4</sup> Therefore, for effectuators, the decision to trust may not be tied to a fixed effect that they are trying to predict. Instead, trusting, and more specifically over-trusting, has the potential to create resources that they could not create under a causal scenario. It is important to note that this approach does not "define" any predictive approach with respect to the effects they are pursuing. In S&D's view, "placing bets" has a negative connotation; as if placing bets is akin to making choices based on a known probability distribution (or coin tosses), disregarding affordable loss. Instead, placing bets can be viewed as entrepreneurial efforts to generate options subject to the effectual decision-making criteria of affordable loss.

In conclusion, entrepreneurs trust and over-trust *deliberately*, and then *make* the *risk of trusting* irrelevant by following effectual logic. This is not the same thing as entrepreneurs not *requiring* trust. Nor is the fact that entrepreneurs make *risk of trusting* irrelevant, trivial—since by making the risk of trusting irrelevant, they are able to trust more, which creates resources of nontrivial value that do not exist following causal logic. We believe this interpretation preserves all aspects of effectual logic, without requiring the restrictive assumption of absence of trust *ex ante*.

## **Effectuation and its Requirements on Individual Parties to a Transaction**

S&D claim that effectuation advocates nonpredictive strategies for *both* parties to the transaction. While we agree with the nonpredictive aspect of effectual logic, we disagree that effectuation requires *all* parties in a transaction to adopt effectual logic. Again, this places unnecessary restrictions on effectuation. Ironically, their position would seem to suggest that effectuators are predictive, since effectuators must first search for other effectuators, rather than (try to) work with people they know and meet! Our position, derived from effectuation, is that effectual entrepreneurs are not necessarily occupied with finding people who think like them or are learning to think like them. To preserve the nonpredictive aspect of effectuation, no assumption needs to be made about other parties.

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4. This implies that effectuators do not "bring the idea to market with zero resources invested" (S&D, p. 729). Instead, entrepreneurs employ resources in an effectual sense by staking their resources that are known to them (at least relative to the entrepreneur's knowledge of their other resources) constrained by the entrepreneur's subjective affordable loss criteria.

Instead, a more defensible position is that effectuation allows entrepreneurs to bring several parties into their fold regardless of the motives or reasoning process of other parties as long as they can potentially contribute to the evolving vision of the entrepreneur.

S&D further argue that trust is unnecessary because effectual stakeholders self-select into a collaborative network that evolves in a step-by-step manner involving a sequence of commitments. We disagree with their argument, because for each commitment to occur, including the initial commitment, trust (or over-trust as argued by Goel & Karri, 2006) is imperative. Trust is implied in the very notion of commitment, and thus the initial condition of trust, required for the initial commitment, may not exist in many cases. However, the concept of over-trust allows us to understand how effectual reasoning allows entrepreneurs to operate in unfamiliar contexts and less understood (thus no basis of trust) nodes in the network. In conclusion, we suggest that requiring all parties in a transaction to reason in an effectual manner is an unnecessary additional constraint in developing and extending effectuation as a theoretical framework in the field of entrepreneurship.

In addition, S&D introduce the notion of “intelligent altruism” (Simon, 1993) as a rational strategy for effectuators, as well as for all the stakeholders involved in the entrepreneurial venture, because the “intelligent altruism” in effectuators “cues-in” the same in others. In order to examine S&D’s position, we turn to Simon’s (1993) notion of intelligent altruism. There are two important premises behind Simon’s arguments for altruism in economics (Simon, 1993): bounded rationality and docility (Simon, 1990). According to Simon (1993):

By “docility” I mean the *tendency* [italics added] to depend on suggestions, recommendations, persuasion, and information obtained through social channels as a major basis for choice (p. 156).

Clearly, Simon is not suggesting that docility is a trait that divides populations into segments, just as we are not suggesting that over-trust is a trait as implied by S&D. Rather, Simon’s view is that by starting with a premise that individuals are docile, as opposed to being opportunistic and calculative (with guile), one can argue for the presence of *altruism* in individuals, and altruism as opposed to selfishness, inevitably could be the key to survival. Further, Simon (1993) proposes a distinction between intelligent altruists and unintelligent altruists. According to Simon, there is a difference in intelligence among docile individuals. Intelligent altruists are less altruistic than unintelligent altruists, and more altruistic than selfish individuals. However, intelligent altruists may benefit more from docility than unintelligent altruists. In arguing so, Simon (1993) lays out a case as to how over a generation, the population of intelligent altruists will survive, while unintelligent altruists and selfish individuals will disappear. Therefore, it is not clear how S&D arrived at a conclusion that intelligent altruism “cues” in intelligent altruism in others, as if intelligent altruists are successful in converting unintelligent altruists or selfish individuals.<sup>5</sup> Instead, a more acceptable argument would be that altruism may be a rational strategy under the premise of docility, and individuals may differ in the types of altruism they exhibit. The influence of different types of altruists and selfish individuals and the processes involved are in need of further theoretical development. However, we see an application of this notion to over-trust in Goel and Karri (2006, p. 489) “over-trusting by a population of entrepreneurs could make trusting others relatively unconditionally a cultural norm and isolate people who violate this collective norm” (p. 489). Thus, in a

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5. It was not the purpose of Goel and Karri (2006) to explain how the behavior of entrepreneurs influences the behavior of other actors.

Simonian sense, at the population level, trusting others as a cultural norm could result in the survival of intelligent altruists and the extinction of selfish individuals.

### **Importance of Entrepreneurial Cognition, Attitudes, Intentions, and Behavior**

S&D indict Goel and Karri's approach to effectuation as "trait-based." S&D's arguments are based on an (1) inaccurate account of the underlying assumptions of Goel and Karri (2006); and (2) incorrect interpretation of our propositions that link distinctive psychological qualities of effectuators and their "tendency to trust" as an "entrepreneurial trait."

Our position is that an entrepreneur is defined by her actions, not by any innate *a priori* ability. However, some entrepreneurs are better than others in a cross-sectional sense, hence the term "expert entrepreneurs." Individual differences in attitudes, abilities, domains, and cognition explain these differences between experts and novices. Ironically, S&D put forward the notion that effectuation is a theory of entrepreneurial expertise, and at the same time refuse to recognize that expertise varies among individual entrepreneurs. In our view, psychological characteristics such as self-efficacy, nonconformity, achievement motivation, and preference for innovation are attitudinal constructs that have significant bearing in understanding entrepreneurial drive or intent, and in turn entrepreneurial behavior, and by extension, entrepreneurial expertise (Boyd & Vozikis, 1994; Fishbein & Ajzen, 1975; Florin, Karri, & Rossiter, 2007; Krueger & Dickson, 1994; Mitchell et al., 2002). In addition, attitudes change over time because of changes in the situation and because of learning, early life experiences, and exposure to developmental experiences (Bronfenbrenner, 1986; Erikson, 1980; Schmitt-Rodermund, 2003). In other words, there is no reason to conclude (as S&D seem to do) that attitudes (psychological characteristics) are static constructs that are not amenable to change.

Given our position that there are no innate abilities that define entrepreneurs, we allow that entrepreneurial expertise can be developed. In fact, we believe that all human beings are capable of developing *any* expertise, not just entrepreneurial expertise. However, precisely because individuals can show varying levels of expertise at different points of time, not everyone in the world *is* an entrepreneur in a cross-sectional sense. This implies that there are distinctive cognitive qualities that distinguish entrepreneurs from nonentrepreneurs (defined, let us repeat, by action and not some innate trait) and experts from novices at any one point of time. The discussion of entrepreneurs versus nonentrepreneurs in Goel and Karri (2006) addresses a question that is central to research in cognition-based explanations of entrepreneurial action (Mitchell et al., 2007). For instance, Mitchell et al. (2007) suggest the possibility of distinct cognitive qualities that can explain the difference between individuals who will choose to act (over-trust in our case) from those who will not. It is therefore reasonable to posit that the difference between entrepreneurs and nonentrepreneurs can be found along the reasoning approach they employ (causation versus effectuation). Therefore, our subscription to the view that entrepreneurs are not born but made does not contradict the empirical evidence that shows entrepreneurs do think differently than nonentrepreneurs (e.g., bankers),<sup>6</sup> since neither relies on any invariant quality of human beings.

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6. For a study contrasting the cognitive frames of entrepreneurs and bankers, see (Sarasvathy, Simon, & Lave, 1998).

In summary, S&D's implication that the cognitive structures that include decision-making and problem-solving methods (such as effectuation) are independent of any beliefs and attitudes (psychological characteristics) is rather perplexing. This places unnecessary restrictions and unsupportable burden on the theory of effectuation. Rather than relying on unpublished empirical studies (Allen, 2003, cited in S&D) and informal conversation (Wiltbank's personal correspondence, 2006, cited in S&D), we refer S&D to a rich body of literature on cognitive structures, attitudes and behavior.<sup>7</sup>

In conclusion, to study how entrepreneurs differ in their cognitive infrastructure, attitudes, and behavior along with their reasoning process addresses the important question of how entrepreneurs come to be (i.e., how the expertise is developed) and who they are. We believe that it is important for the field to address both questions as opposed to ignoring one at the expense of the other.

### **S&D's Alternate Behavioral Assumptions**

S&D's response devotes considerable space to propose "alternate" behavioral assumptions that appear to be motivated by S&D's interpretation of the underlying assumptions of Goel and Karri (2006). S&D interpret the arguments made by Goel and Karri (2006) as belonging to a "monistic baggage," suggesting that we imply that psychological or cultural characteristics are stable, and populations of individuals can be divided into homogenous groups based on static personality traits. This interpretation is not warranted—it is a gratuitous stretch of Goel and Karri (2006). Our propositions linking personality characteristics to over-trust do not require the assumption that psychological characteristics are stable—this is not a boundary condition of our propositions. Because our framework is cross-sectional, it is silent about the temporal stability of these characteristics. It is S&D's interpretation of our arguments that personality characteristics are invariant over time. We do not suggest at any point in our article (Goel & Karri, 2006) that personality characteristics are invariant. Moreover, S&D do not make explicit connections between each of their "alternate behavioral assumptions" and the implications for effectuation or the topic of (over) trust; neither do they make a link as to how the assumptions contradict the arguments made in Goel and Karri (2006).

Nevertheless, we believe it is important to examine the three behavioral assumptions of heterogeneity, lability, and contextuality proposed by S&D. First, the assumption of heterogeneity suggests that variation exists between groups and within groups (i.e., entrepreneurs and nonentrepreneurs; expert entrepreneurs and novice entrepreneurs, again defined by actions and not by any trait). This assumption justifies the study of factors that explain such variation both between and within groups. Propositions developed in Goel and Karri (2006) are certainly in accordance with the assumption of heterogeneity (between groups). Second, the assumption of lability suggests that individuals and their "baggage" (of personality characteristics, culture, and institutions) changes over time. Longitudinal studies of entrepreneurs provide appropriate avenue to examine how the behavior of entrepreneurs changes over time. Clearly, the conceptual framework of Goel and Karri (2006) is cross-sectional in nature. Precisely for this

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7. For instance, Krueger (2007) provides theoretical underpinnings to entrepreneurial cognition that can better explain entrepreneurial expertise. Krueger suggests that entrepreneurial action is based on intentions. Intentions are based on attitudes (e.g., self-efficacy), and behind attitudes are cognitive structures (e.g., effectual reasoning).

reason, Goel and Karri (2006) discuss the possible avenue of studying the effect of the initial condition of over-trust in influencing the behavior over time (p. 489). Third, S&D's assumption of contextuality suggests that multiple behaviors may be observed in different contexts. Again, the propositions in Goel and Karri (2006) are not inconsistent with the above assumption. For instance, Goel and Karri (2006) propose that entrepreneurs in collectivistic cultures are more likely to over-trust than do entrepreneurs in individualistic cultures (Proposition 5, p. 487). In our view, this proposition does not preclude the same entrepreneur to behave differently (trusting or over-trusting) while operating in each of the two cultural contexts. Similarly, with regard to S&D's example of alliances between hackers, software security firms, and their stakeholders, none of the instances violate the central thesis of over-trust in our paper. In each case, over-trusting behavior would increase the options available to each party. In the case of the software security firm, to ally with a known hacker for example, the firm needs to not only display over-trusting behavior, but also exhibits how effectuation may create resources by adopting strategies that may be judged unethical within a temporally proscribed window.

Based on their alternate assumptions, S&D assert, "we think that human beings are *sufficiently* adept at behavioral cues, as well as being *sufficiently* heterogeneous, labile and context-sensitive to implement the requisite behaviors" (S&D, p. 735). First, the idea that at an individual level, human beings are malleable and sufficiently adept at observing behavioral cues and that as a population they are sufficiently heterogeneous, is not new and does not strongly flow from their alternate assumption.<sup>8</sup> Second, to assert that human beings and entrepreneurs are adept at taking behavioral cues and being context sensitive implies a passive, Skinnerian adjustment to the context. In contrast, one can argue that an effectual entrepreneur may behave (e.g., over-trust) insensitive to the context and specific behavioral cue of the other party, thus creating the need for a different or new (and because of this, resource-rich in an entrepreneurial sense) behavior from the respondent (stakeholder). Finally, S&D assert that "large, complex, multi-player opportunities" are discovered by effectual entrepreneurs as a result of their dependence on their intelligently altruistic behavior, which in turn cues in the same in others and brings about a collective awareness of the "opportunity in the making." At this stage, the "membership" of these "multi-party opportunities" is unnecessarily restrictive, because it does not allow access to people who are resource-rich but not privy to the "opportunity in the making." Thus, in our view, there is neither a need for *all* parties to behave altruistically (intelligently or otherwise), nor is there a need for a *collective awareness* of the "opportunity in the making." Effectuators craft their vision by seeking out potential stakeholders regardless of the motives of *others* (altruistic or selfish) and the extant of awareness toward the opportunity. The key insight into the behavior of effectual entrepreneurs is that despite the fact that the effectuators may not be able to articulate the "opportunity in the making," they are successful in enlisting commitments from potential stakeholders, over-trusting being one of the many effectual ways. Instead, a more reasonable position may be that regardless of the strategies used by other stakeholders, for effectuators, intelligent altruism may be a rational dominant strategy (and therefore eliminating the need to predict the awareness and strategies of these stakeholders). However, we are not sympathetic to S&D's argument with respect to the notion of intelligent altruism as a rational strategy that cues in the same in others, as it requires further conceptual development.

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8. Neither does it contradict our position on the use of over-trust.

## Conclusion

S&D's response appears to be based on a less than thorough reading of our original article as it relates to trust in entrepreneurial (and even human) action. More broadly, contrary to S&D's implication, we did not contradict the principles of effectuation (Sarasvathy, 2001), including their claim that our view of effectual reasoning is predictive. The crux of our arguments is that entrepreneurs over-trust to create resources, deliberately so, and by using effectual logic, entrepreneurs trivialize the risk inherent in (over) trusting to achieve nontrivial benefits. Thus, we disagree with S&D's position that "effectual logic does not *require* any particular assumption about trust *ex ante*." In addition, as implied by S&D, we did not take the "entrepreneurial traits" approach to imply that entrepreneurs are a special breed, incapable of changing. However, our arguments suggest that entrepreneurs differ in their abilities because of the differences in their cognitive reasoning, attitudes, intentions, and behavior. Our position is that a focus on innate psychological traits to the exclusion of everything else is limiting to the advancement of theory building in entrepreneurship. Therefore, it is important to study other characteristics, such as attitudes, cognitions, and reasoning processes of entrepreneurs, with a full recognition that these characteristics are capable of varying over time or over multiple contexts.

In our response to S&D, we tried to point out some of the logical fallacies that were apparent in their attempt to deepen our understanding of effectuation. S&D introduce assumptions that are restrictive and unnecessary for advancing theory of effectuation, and these assumptions do not meet the criterion of parsimony in theory development. For instance, it is restrictive to assume that entrepreneurs can do without trust *ex ante*. It is restrictive to assume that effectuators will interact only with others who follow effectual logic. It is not necessary to assume that effectuators cue in altruism (intelligent or otherwise) in others—effectuators need not take on the cognitive costs of finding others who think like them or analyzing whether others are "intelligent altruists." As long as interacting with others will create resources for entrepreneurs and attract resourceful "others" who are willing to contribute to the evolving vision of the entrepreneurs, effectual logic will accommodate such diverse partners. In other words, effectuators are not necessarily prospecting for members of their flock; instead, effectual reasoning accommodates the entrepreneurial action of forming an alliance with a "stranger on the street" as long as that exchange meets the effectual "affordable loss" criterion.

Finally, S&D do not make a link as to how the "alternate behavioral assumptions" contradict the arguments made in Goel and Karri (2006). Although these assumptions and assertions about intelligent altruism may hold promise in explaining some facets of entrepreneurial action, in their current shape, these are underdeveloped and any judgment regarding their efficacy to advance entrepreneurship theory in a parsimonious fashion is premature. In summary, after reading S&D's response, we stand by our article (Goel & Karri, 2006) and look forward to a fruitful debate in advancing entrepreneurship theory.

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