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Subjective value in entrepreneurship

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Abstract We produce a definition and argument for explicitly adopting value subjectivism in entrepreneurship research. While the field has progressively shifted toward subjectivism over the past decades, we remain saddled with positivist baggage in our theories' definitions of key variables, including the concept of value. Although modern scholars readily admit that value is subjective, what is generally meant by this is that it is idiosyncratically determined. We argue that value is more appropriately defined, atop pure subjectivism, as an increase in subjective satisfaction or well-being. We develop and elaborate on this definition and explore its implications for entrepreneurship theory and policy.

Keywords Entrepreneurship · Subjective value · Subjectivism · Philosophy of science

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Entrepreneurship, as a scholarly field, emerged from management as scholars turned their attention to questions of how organizations came to be in the first place. For this reason, the field has inherited the functionalist paradigmatic assumptions that management, in turn, inherited from economics and psychology (Pfeffer 1985). But these positivistic foundations are not suitable for studying the creative and imaginative nature of entrepreneurial action and entrepreneurship's disruptive and uncertainty-bearing function in the economy (Hoppe 1995; Mises 1985, 2002). These foundations also stand at strict odds with contemporary entrepreneurship theory's heavy reliance on theories and concepts borrowed from Austrian economics (Endres and Woods 2007; Klein and Bylund 2014; Shane 2003). Said differently, the Austrian School, which is notoriously *subjectivist*, is incommensurable with the *objectivism* that has pervaded the social sciences in the past century, including modern entrepreneurship scholarship.

This fundamental tension fuels much of the ongoing discussions in entrepreneurship theorizing. Symptomatically, scholars have been arguing for nearly two decades over the nature, implications, and uses of core constructs in entrepreneurship theory, most conspicuously the much maligned entrepreneurial opportunity (e.g., Alvarez and Barney 2013; Alvarez et al. 2013, 2014; Crawford et al. 2016; Davidsson 2015, 2016; Dimov 2011; Eckhardt and Shane 2010; Eckhardt and Shane 2013; Klein 2008; Packard 2017; Shane 2012). These debates have yet to come to a satisfying conclusion, and we argue that such an outcome is unlikely because they address the symptom but not the disease. The debate regarding the entrepreneurial opportunity is less about the opportunity per se (Buenstorf 2007; McMullen et al. 2007), and more about our fundamental assumptions (Alvarez and Barney 2010; Carlsson et al.

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2013; Ramoglou and Zyglidopoulos 2015). Specifically, this and other debates in entrepreneurship theory relate to the question of what motivates action, and specifically *entrepreneurial* action, i.e., value. With the arguments all but exhausted, the entrepreneurship discipline finds itself at a "critical juncture" (Mahoney 2000).

We argue that the solution lies in removing the tension by explicitly acknowledging the subjectivity of value. Subjective value, or a sense of satisfaction in personal terms, is what motivates all human action. It therefore suggests a means for developing theory that recognizes entrepreneurial behavior as a distinct form of human behavior. Our proposal is less radical than it may seem, because the field has, appositely, been trending toward subjectivism (e.g., Alvarez et al. 2013; Davidsson 2015; Foss and Klein 2012; Foss et al. 2008; Garud et al. 2018; Hjorth et al. 2015; McMullen and Dimov 2013). Entrepreneurship scholarship has already adopted the largely individualistic (albeit social) nature of the entrepreneurial phenomenon that we study. However, the "subjective" value construct in this research is not truly *subjectivist*, but is conceptualized as *objective* but *idiosyncratic*—i.e., value is *real* but different for each individual (e.g., Macdonald et al. 2011; Priem et al. 2018; Schmidt and Keil 2013). What we suggest, therefore, is a more complete turn to subjectivism. We recognize that, following Hayek's (1952: 31) recognition that "every important advance in economic theory during the last hundred years was a further step in the consistent application of subjectivism," this should be true also for entrepreneurship.

Subjectivist entrepreneurship would expectedly solve a number of problems, such as the persistent debate over the opportunity construct (Alvarez and Barney 2020; Foss and Klein 2020; Wood and McKinley 2020), obstinate questions about the causes of disparate performance outcomes (Gilbert et al. 2006; Van Praag 2003; Zhao et al. 2010), a new focus of the "fuzzy front end" of judgment and innovation (Brentani and Reid 2012; Eling et al. 2013), and what entrepreneurship educators might do to close the academic-practitioner divide (Dimov 2016; Venkataraman et al. 2012). This would also have implications for policy. In this article, however, our objective is limited to introducing to the reader what a truly subjectivist foundation for entrepreneurship would (or could) look like and what it would mean for entrepreneurship theory.

We begin by justifying our assumption that entrepreneurship theory is *not now* subjectivist, although many already suppose it to be. As Packard et al. (2017) argues, prevailing realist entrepreneurship theories collapse into the side of functionalist objectivism and not to interpretivist subjectivism. We show that modern entrepreneurship theory's core constructs—*value* and *opportunity*—are not now subjectivist constructs but are, instead, idiosyncratically objectivist. We then turn to an examination of what truly subjectivist value and opportunity constructs would look like. Finally, we build from these truly subjectivist foundations and the derived central constructs of value and opportunity, the initial groundwork of a truly subjectivist entrepreneurship theory.

1 What is subjective value, really?

Modern social scientific theory is built on the recognition that value is *subjective*. This value, which is both understood and experienced subjectively, motivates individuals' behavior and is, therefore, an important microfoundation for explaining emergent social phenomena. Perhaps most prominently, modern economic theory has, since the 1870s (e.g., Menger 2007 [1871]; Walras 1954 [1871]), made this a core assumption of its *corpus*. Its theories and models, including its "laws," derive from this insight, which is consistently recognized, although rarely made explicit. Similarly, marketing theory acknowledges that value is in the eyes of the customer (e.g., Hunt 2002), i.e., it is subjective and that the firm is a "customer-satisfying organism" (Levitt 1960: 56). Psychology has also sought the locus of human motivation and affect within the individual's subjective valuations (Baron 2008; Brown 2018; Hsee and Rottenstreich 2004).

However, there has long been a foundational error in the assumptions of our field, and of the social sciences more broadly, that has misled our science onto mistaken paths and unreliable theories, and thus to misguided prescriptions. This error, we argue, is a profound misunderstanding of *value* as being objective and measurable rather than the subjectively understood and experienced, and consequently immeasurable, motivation for actions (Menger 2007). As a result, there is an important and unnecessary conceptual disconnect between reality and theory.

1.1 Is the modern value construct not already subjective?

Our claim that modern scholarship supposes value to be objective might raise a skeptical eyebrow, since scholars have long supposed value to be subjective in some sense, with recent momentum pushing the prevailing value concept incrementally more subjectivist (e.g., Bowman and Ambrosini 2000; Kornberger 2017; Lepak et al. 2007; Pitelis 2009; Priem 2007; Schmidt and Keil 2013). But the prevailing "subjective value" concept in entrepreneurship, as in economics, is defined and understood as *idiosyncratically determined*, rather than truly *subjective*. For example, many scholars reference an ability to "recognize the value of [an] opportunity" (Alvarez and Barney 2004: 625) or of the specific resources that comprise an opportunity (Eckhardt and Shane 2003: 337) in reference to the idiosyncratic preferences of individual actors. In other words, value is broadly understood to be ontologically *real* and *objective*, albeit individually distinctive—it is operationalized within the "functionalist" paradigm rather than within subjectivist interpretivism (Burrell and Morgan 1979; cf. Packard 2017). Researchers have moved to integrate this partially subjective value construct into objectivist prediction models of performance. Thus, while we as a field pay lip service to subjectivism, we yet lack subjectivist microfoundations as supports for our theories and measures.

Treating value as objective and measurable, whether intentional or not, simplifies and can sometimes facilitate analysis on false grounds. Such analysis is based on the distortive exclusion of the fundamental and decisive complexity of social systems as emergent and designed orders with multi-level implications along several dimensions, including interpretation (Packard 2017), knowledge and information diffusion problems (Hayek 1945), and uncertainty (McMullen and Shepherd 2006).

1.2 Truly subjective value

Economic value does not have an objective basis and cannot be measured. Instead, it is "entirely subjective in nature" (Menger 2007: 146) and is experienced by the person directly. All actions are taken to attain some subjectively valued end, "to remove or at least to alleviate the felt uneasiness" (Mises 1998: 14), making actions *purposeful*. The purposefulness of action, which it is undertaken with the intention to achieve some end that is desirable in the eyes of the actor, is an "unescapable fact" (Knight 1925); indeed, "the desire to achieve this end is the [hu]man's *motive* for instituting the action" (Rothbard 2004: 1; emphasis in original).

Value is the benefit gained in the experience of some consumption activity (Vargo and Lusch 2004), the "pass[ing] from a state of need to a state in which the need is satisfied" (Menger 2007: 51–52). In other words, it is an increase in satisfaction or well-being. As Priem (2007: 222) shows, this conclusion implies several additional keys that "the current purchase of a durable good can result in many future value-producing experiences"; that "different consumers experience more or less value, even when using the same product"; and that "a product or service that remains unconsumed is without value" (cf. Menger 2007: 64). However, even Priem (2007) and others that have similarly pushed value further subjectivist (e.g., Foss and Lindenberg 2013) appear to fall prey to confounding *wants*—that is, the user's predicted consumption value that directs her action—with the actual experience of that value, the achieved benefit gained. It is important to distinguish expected from experienced value and to recognize consumer uncertainty and, thus, the role of persuasion through communication or marketing as well as disappointment in the market. The sale, in other words, may not be "final" in the sense that it can still lead to disappointment and thus have a long-term impact on the seller.

An example illustrates this importance. Consider a hungry consumer who has ordered a pizza. The pizza is delivered and paid for, with tip, for a total of \$12. Of course, the hungry consumer was willing to pay more, but with her many options, the \$10 price of the pizza, plus \$2 tip for the convenience of delivery, was her preferred option. But as she settles down to the table, she discovers that the pizza she was given is covered with insects. Terrified, she slams the pizza box shut and runs it to the dumpster outside, shrieking the entire way. What, in this scenario, is the total value? Certainly, we can see that it is zero—there was no consumption and, thus, no benefit gained. We might even say that it was *negative* and that she is *worse off*, given the fright and frustration that it caused. We can then observe that this has had a *negative* overall economic effect—it has destroyed value—because the value gained (≤ 0) is smaller than the cost of its production (let us say \$5). It is true that the pizza producer has gained a profit (\$7). However, the consumer has lost \$12 and the opportunity cost that it signified. Economic (aggregate) effects are negative as are its long-term strategic effects. This customer is never coming back; she is telling her friends about her bad experience; and she is complaining on social media, tarnishing the producer's reputation. From the point of view of the overall economy, scarce productive resources were used to produce value that fell short of the cost; simply put, value was destroyed (in this case, to the tune of $5+). In other words, these post-purchase effects are economically, and strategically, relevant. Yet they are overlooked when confusing wants or preferences with attained (experienced) value.

The actual subjective value experienced by the individual cannot be objectively measured as there is no universal unit to gauge personal satisfaction (there are no actual "utils," as used in undergraduate economics courses), and it cannot be directly observed by others. What was observed in the pizza example was that the customer was willing to pay a total of $12 for a pizza that was not eaten and that the purchase not repeated thereafter. But it tells us nothing about the reason this price was paid, why the pizza was not eaten, or what was felt during the experience. These are best understood, based on the information available to the actor in two different situations, in terms of comparisons of alternatives. When choosing to act, the individual "is eager to substitute a more satisfactory state of affairs for a less satisfactory" one (Mises 1998: 13), and the choice depends upon comparing the expected value of those two possible states. By making the choice, the other ends that were available, and the value that they were then expected to provide, are foregone and consequently lost to the individual. It thus follows that the highest value that once was, but is no longer, attainable is the real economic cost of the choice, an opportunity cost. It also follows that the end chosen must have been considered by the individual to be the most valuable among the identified alternatives. In the pizza example, the consumer considered it the best option, just like the same consumer, upon learning the true state of the pizza and its ability (or lack thereof) to satisfy the intended want, found discarding it uneaten the best possible course of action at that time. A person's actions reveal her wants at that moment (Samuelson 1938, 1948). As the example also indicates, value experiences over time produce a learning process whereby consumers learn what to want, that is, how to best satisfy their wants with the resources and market options available to them (Witt 2001). Thus, consumers form value expectations from experience and information sources, such as online reviews (Chevalier and Mayzlin 2006; Ziegele and Weber 2015), but ultimately, value is achieved only in consumption. The consumer in the example chose to order a pizza due to the prior learning that pizza can satisfy certain wants, but her learning that this particular pizza place does not reliably deliver satisfaction has immediately altered her preference, resulting in the pizza's disposal rather than its consumption and an altered behavior pattern that excludes returning to that pizza provider in the future.

1.2.1 Goals, wants, and preferences

Foss and Lindenberg (2013) argue that subjective value derives from the motive-forming cognitive processes by which goals are determined, prioritized, and activated. But even though the individual sets her own goals on her own terms, there is, as we saw in the pizza example, no guarantee of success. Goals can be set whether or not they are actually attainable. Errors can arise due to the limited knowledge available to the individual at the time the decision is made and her bounded rationality (Simon 1957) and, thus, the impossibility of perfectly foreseeing future events. In other words, any action is speculative to some degree because its outcome is subject to uncertainty (Knight 1921)—the actor cannot know a priori whether the actual value of the outcome differs from the expected value or, even if not, whether it will be successfully attained (Lachmann 1978; Mises 1998). Thus, *expected* or *predicted* subjective value—one's subjective *wants*—is conceptually distinct from *real* or *achieved* subjective value, which is the benefit actually gained in a value experience (Priem 2007; Vargo and Lusch 2004).

Preferences are given by one's subjective prioritization of her own goals. Goals or intentions are hierarchically established and ranked (Mises 2002), with some overarching goals governing shorter-term goals and specific wants directed toward those ends (Lindenberg 2008; Lindenberg and Foss 2011). Goals, in effect, compete for the actor's attention and efforts, causing her to balance and even mix priorities. Wants and, from them, willingness to pay are greater for goods expected to move consumers the furthest toward their individually prioritized goals. The actor prefers those wants that are prioritized higher than others. Some goods are more highly preferred because they service multiple goals, either by being useful toward several different valued ends or through bundling several distinct services that are often used together by certain users. For example, smartphones' value to consumers not only entail their ability for mobile intercommunication, but also offer all sorts of other solutions to various wants, such as entertainment, learning, organization, navigation and guidance, and so forth.

2 The economics of subjective value

The activities that take place between the decision to act and the conclusion of the undertaking are described in economic theory as production, as they together seek to alter the forthcoming state of the world into a higher-valued one (to the actor). Production is, thus, a prerequisite for the satisfaction attained at the end through consumption. The social actor, Hutt (1990) explains, thus has a two-fold relationship to society: (1) as a producer and (2) as a consumer.

> "[A]s a producer he is the servant of the community. He must apply himself and the property and equipment he possesses to producing what the community wants or he will obtain nothing in the form of claims on others in return. As a consumer, he commands other producers" (Hutt 1990: 257-258).

Each of us as consumer is sovereign in the market, and the producer servant to our consumer demands, else we turn elsewhere for the satisfaction of our wants. Each of us as producer, in the market, must accurately perceive consumers' wants if we are to convince them to allow us to provide for those wants, thereby obtaining their business. In other words, our ability to demand products and services offered for sale in the market, and thus our ability to consume, depends on our ability to productively facilitate consumption, for ourselves or for others. We produce that thereby we may consume (Say 1836), whether it is the product of our own hand or the product of another's, obtained through market exchange. Production is costly for the same reason that the choice to produce is, namely, that the resources committed to the process could have been used elsewhere (in production or enjoyed directly through consumption). In other words, the real cost of production is the opportunity to satisfy other wants—the value foregone by undertaking a specific type of production (Coase 1973). Recognizing that there are alternative courses of action, the production process is continuously scrutinized in the face of (new and previously known) alternatives. Producers' projects—their plans—must therefore be constantly challenged and revised in value terms (Bylund 2015; Lachmann 1978). This can be a result of learning about the world, including new technologies and opportunities, but also as the producer changes her valuation or loses interest in the pursued goals. Once this two-sided understanding of actors' role within an economic system is grasped, and the sovereignty of consumers within that economic system recognized, the primacy of subjective value, properly understood, becomes apparent.

Proper analysis of the market process and, thus, of business requires that we be clear and explicit in defining and delineating the distinct roles of "producer' and "consumer" in this process. In our analysis, a person acts as a *consumer* whenever s/he pursues the maintenance and optimization of individual well-being. This role includes learning of, wanting, procuring, and consuming solutions to one's various needs.[1] The ability to engage in this role is the reason for undertaking the production of such means. A person acts as a *producer* whenever s/he employs his/her own resources (including knowledge, skills, and abilities) toward generating consumption experiences for consumers, whether for him/herself or for other consumers. Producers only produce what they think consumers (will) demand. The demanding of specific solutions, again, is the task of the consumer, who chooses between the available and expected alternatives. These roles, while distinct, clearly interrelate which interactions we elaborate in the following.

2.1 The consumer perspective

The consumer's role culminates in their demanding satisfactions to their subjective wants, which are their latest preferences at the tail end of the aforementioned value learning process (Witt 2001). These preferences are not, as we have observed, the same as the value

[1] A further distinction can be made between the *buyer*, who pays for a good, and the *consumer*, who uses and values it. These are often, but not always, the same (e.g., gift giving). Where they are not, the buyer bases his/her willingness to pay upon an empathy-based expected value estimate—what s/he believes the beneficiary would gain from it. For simplicity, we assume for the remaining discussion that buyer and consumer are the same, although the analysis is very similar when they are not.

achieved in experience, which satisfies or not the actors' true needs. A consumer acting on her preferences may end up dissatisfied. This *value uncertainty* is resolved incrementally through an ever-progressive market process by which new solutions are entrepreneurially produced and consumed, the value of such solutions learned and assessed in comparison with other market options. While we will turn our attention to the production processes next, here we need to explore the learning processes by which consumers determine their subjective preferences.

Consumer learning and discovery are both experiential and imaginative. As value can only be directly experienced by the individual, meaning it is subjectively felt and understood, the individual, as consumer, over time develops and refines her understanding of how to satisfy her wants and of what types of goods have, in her experience, failed to satisfy held wants. To borrow from Kirzner (1973), the consumer has her own "ends-means framework," a value-goods mapping, which is her collected experience of what types of means (goods) did and can sufficiently and properly satisfy specific ends (wants). Any successful want satisfaction strengthens and adds nuance to the value picture while any failed satisfaction contributes new learning. We should then expect consumers to cumulatively learn about their own wants and values over time as they amass consumer experience. Value uncertainty, thus, may decrease with experience of consumption, with which the individual's preferences are also updated.

The imaginative component of value learning regards *how* a good can be used to satisfy a specific want. While the role of determining how to satisfy a particular consumer want is, in typical economic theory, ascribed to the role of the producer (e.g., Felin and Zenger 2009; Kirzner 1973), we hold this attribution to be incomplete because it does not go beyond revealed preferences. Following Hutt (1990) and the subjective value perspective, it is the *consumer's* (user's) role to assess and ascertain the most effective solution to their own wants, while the producer is tasked with serving consumers' specific demands by offering those demanded goods for purchase and consumption. Thus, the role of value innovation and solution discovery is, actually, the consumer's and not the producer's, since the producer cannot observe actual valuation. It is true that entrepreneurs actively engage in innovation processes, but, as we will discuss below, such innovation is limited to production of the means intended for satisfaction. While entrepreneurs participate in the innovation process by *facilitating* value, the *creation* of value is the domain of the consumer role, either directly through user innovation or empathically as a producer draws from her experiences and imagination *as consumer*. Because value is subjective, it is only by using their own consumer experience that producers can formulate a design of what is, or may be, wanted. Said differently, innovations are generated by consumers in their never-ending pursuit of higher-valued satisfactions. This may entail user innovation processes (Bogers et al. 2010) such as household bricolage (von Hippel et al. 2012), participatory design (Schuler and Namioka 1993) where consumers contribute directly to producers' design process, or directly by the entrepreneur *through the lens of and drawing from their own experience as consumer* in empathic imagination of other consumers' wants. Thus, what the producer may offer is potential rather than actual solutions to the want-satisfaction problem, as the pizza example above illustrated. Whether and how a good may satisfy a real want is ultimately dependent on consumers' evaluation, whether from experience or imagination, of the serviceability of the good with respect to the subjectively determined want.

Any resource can be used toward a number of ends (Lachmann 1978), although goods typically are unequally suitable for different possible uses. How a good can be used to satisfy wants depends not just on the nature and properties of the good but also and more importantly on both the actual wants the consumer seeks to satisfy and how she understands them. The former is informed by her experience as a consumer, while the latter is a function of her imagination, which can be *constrained* by consumptive experience—that is, consumers' imagination of solutions is often grounded in whatever solutions already exist (Leonard and Rayport 1997).[2]

Based on limited and error-prone value knowledge (Schachter and Singer 1962) and constrained imagination, consumers' expectations of value are highly fallible and uncertain. Steve Jobs famously remarked that consumers often do not know what they want until it is shown them. Yet, even then, consumers must build their wants of such new solutions from mere predictions of

[2] Studies of creativity show that human imagination is bounded by the familiar. When drawing alien life-forms, for example, participants tend to resort to human-like attributes, drawing them with human eyes, mouths, and other anthropomorphic features (Ward 1994).

the value experience that those solutions would elicit. Often, such predictions are mistaken, and consumers are left unsatisfied (Anderson 1973; Oliver 2010). These prediction–action–outcome–learning cycles are highly reminiscent of the experiential learning cycle outlined by Kolb (2014), whereby consumers learn what to want (Witt 2001), as illustrated in Fig. 1.

Because of this consumer-side value uncertainty, entrepreneurs attempting to satisfy other consumers' wants in new ways—for example, with new types of goods or new and previously unaddressed wants—may need to help those consumers realize the value to them in consuming the good. As Henry Ford is famously quoted as saying, "If I had asked my customers what they wanted, they would have said "faster horses."[3] As Schumpeter (1934: 87) noted, truly novel solutions generally meet resistance rather than excitement, which could also be related to the high death rate of new organizations (or the "liability of newness" (Stinchcombe 1965: 148)). New products (and new organizations) may thus require extensive communication efforts to support consumers' imagination of what value they facilitate.

Advertising is often explained as sharing product information (Kotowitz and Mathewson 1979; Nelson 1974), but value subjectivism reveals that another important function is to stimulate consumers' imagination and thus facilitate value learning. To illustrate, many disruptive products had precursors that were launched before their time or, from the point of view of consumers, communicated poorly. For example, Microsoft's Tablet PC, a pen-enabled personal computer, was launched in 2001 but never achieved wide adoption, yet preceded Apple's disruptive iPad tablet by almost a decade. At the end of the day, producers can only offer goods for sale, supported by imagination-supporting efforts to communicate the potential value to would-be consumers; they provide the means to satisfy wants, but ultimately, it is the consumer who decides whether or not to purchase.

2.2 The producer (entrepreneurial) perspective

While the goal of the consumer is to achieve as much value as possible, this goal is only ascertainable through *production*—consumables must be produced before they can be experienced. Thus, economic actors must adopt the role of *producer* in order to create those value experiences that would improve their own well-being as consumers. Again, the producer's role is as servant to the consumer, to cost-efficiently produce those solutions demanded of them in order to enable consumption and, thus, facilitate value and increased well-being.

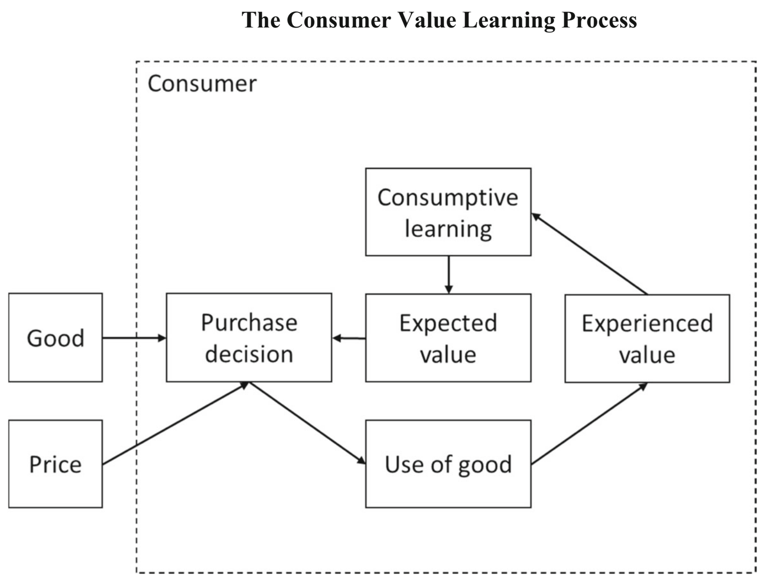
Not all production, however, is directed specifically at one's own want satisfaction. Economists have long recognized that productivity is much greater through *specialization* or the "division of labor" (Durkheim 1933; Smith 1976). That is, by focusing one's productive efforts on specific satisfactions, held by many consumers, the producer can facilitate much more value, cumulatively. Through trade, then, they can optimize overall *economic* value creation and, with the use of money as a medium of exchange (Menger 1892; Mises 1953), leverage that higher level of productivity in specialization into greater consumption power for themselves. In terms of subjective value, we might break the producer's role within the market process into two sub-processes: value proposition creation (or value *facilitation*) and value capture.

2.2.1 Value facilitation

The first producer "sub-role" entails the production process by which value experiences are generated and instigated by *entrepreneurs*, who generate *new* value propositions for consumers to try (Packard 2017). Once that value has been established and institutionalized (or else the entrepreneur has failed), the task of organizing its reproduction and refinement falls to the role of *managers*. Thus, the entrepreneurial role of the producer in the market process is tasked with bearing what might be called the "entrepreneurial uncertainty" of production in creating value experiences for consumers from owned resources (Foss and Klein 2012). As an entrepreneur undertakes production, the appropriateness of the intended good or service with respect to actual unsatisfied wants is always unknown and uncertain. Part of the reason is that production takes time during which consumers continue their value learning. In other words, what consumers value when production commences may be different from what they value when it concludes. In order to create value, therefore, the entrepreneur needs to not only learn consumers' wants in the present, which may provide insight into their situation and behavior, but also imagine and predict what they *will be* at that expected future point in time when the

[3] Although the point is, we think, correct, it is unlikely that Ford actually said those words (Vlaskovits 2011).

Fig. 1 The consumer value learning process



product offering can be made. This propensity for wants to change through the consumer learning processes described above is the cause of the so-called innovator's dilemma (Christensen 2013).

A second key source of this "entrepreneurial uncertainty" are communication barriers, which impede empathic understanding. Entrepreneurs' interpretations of consumers' wants and needs are inhibited by an inherent inability to know the thoughts, feelings, and understanding of another (see Nagel 1974). Even if a consumer could accurately predict what she will want in the future perfectly, she would not be able to convey precisely what that want is, in toto, such that the entrepreneur could know precisely what to produce.

A third source is the relativity of the attractiveness of the want satisfaction that is potentially satisfied by the product offered. Even if an entrepreneur accurately understood and predicted consumers' current and future wants, the market value of whatever offering s/he produces depends on what alternatives other producers design, as recognized by the consumer. In other words, the entrepreneur must position the product offering correctly not only with respect to the actual wants that consumers seek to satisfy, but also with respect to current and future alternative means for want satisfaction offered by other producers. Understanding the consumer is not sufficient for success; the entrepreneur must also, in the eyes of consumers, have a comparatively better offering than others, such that the customer prefers it.

The final worth of the good or service produced by the entrepreneur will, thus, be determined by the consumer's preferences at a specific time. The consumer will, based on her expected satisfaction gained from the good at the time of purchase, accept a price that is lower than their expected value gained, sometimes referred to as their total willingness to pay, by some margin if there are no better alternatives offered in the market. Thus, the entrepreneur's success depends on not only creating the means for want satisfaction, but also anticipating the offering's relative value to consumers and, therefore, what price they will be willing to pay.

The implication of this is that entrepreneurs must commit their productive resources and efforts to the production of particular solutions that they believe consumers do and will want, but with no guarantees that their efforts will be rewarded with final sales. The motivation of entrepreneurs, again, is to facilitate satisfaction for as many consumers as much as possible through productive efforts so that they might gain, in exchange, value for themselves, typically in the form of greater consumption power. This is not always or necessarily to say that the *profit* motive is absolute. Individuals pursue entrepreneurship in their role as producer for more reasons, as consumers, than for the purchasing power that it might obtain, also perhaps preferring (as a consumer), for example, the autonomy, flexibility, meaningfulness, and/or social status that self-employment can offer (e.g., Gelderen 2016). Social entrepreneurs, for example, are often "prosocially" motivated (Christopoulos and Vogl

2015; Renko 2013). Yet, as our approach makes clear, social entrepreneurship is not principally different from non-social or market entrepreneurship: both aim to produce value for the entrepreneur by facilitating value for consumers. The difference between social and market entrepreneurship lies in the entrepreneur's expected value—her personal motivation for production, which for social entrepreneurs may be primarily or even exclusively "altruistic," gaining their desired satisfactions from their facilitating important (imagined, apparent, or communicated) satisfactions for others and not from recompense. This constitutes a potential problem for social entrepreneurs, since they, as compared with market entrepreneurs, may not offer products for sale in competition with other producers. Their consumers, in other words, need not choose between alternatives, and consequently, their actions provide less insight into their preferences. Market entrepreneurs also cannot know the consumer's valuation, but can observe consumers' demand—their willingness (and ability) to pay for the product.

Because of this value uncertainty, entrepreneurs are forced to bear the prospect of the loss of those resources committed ex ante to production (Foss and Klein 2012; Mises 2008). To mitigate such losses, entrepreneurs have increasingly learned to adapt and alter their production plans—to pivot—quickly and often. Startup strategies, such as effectuation (Sarasvathy 2001, 2008) and lean startup (Ries 2011), are oriented specifically toward such adaptability. The reason these strategies are effective is because they make entrepreneurs more responsive to feedback from consumers and, therefore, allow them to better position their goods with respect to wants recognized by consumers themselves. We submit, based on subjective value, that the more consumers are involved in product development, the greater are the chances of success.

Finally, we should note that entrepreneurs' actions are aimed toward greater value for both the producer and the consumer of those goods. The good is produced with the intent to facilitate value through the satisfaction of wants for the buyer of that good. The "venture" is successful if the good corresponds to the preferences of enough consumers, relative to their available alternatives, so that it generates income for the entrepreneur in excess of production costs, which can then be used to purchase goods corresponding to the entrepreneur's preferences. In neither case, however, is value "created," as value arises only through consumption. Such creation of *economic* value is thus indirect value creation and better termed *value facilitation*—it produces the means for satisfaction through consumption. We will now elaborate on the producer's value facilitation for herself through the generation of saleable goods.

2.2.2 Value capture

Once a producer creates some good, it is presented to consumers as a *value proposition* (Grönroos and Voima 2013)—that is, it is proposed as a solution to consumers' wants and needs for purchase consideration. While this process includes non-market propositions, such as a parent proffering a sandwich to their picky toddler, we are here concerned with *market propositions*, i.e., goods offered to consumers for purchase. As noted above, to be successful, the proposition must be positioned with respect both to absolute and relative value from the consumer's point of view. In this process, the producer captures value in market exchange, the centerpiece of market process theory, and thus obtains their goal of greater consumption power (via future market exchange).

To understand this exchange process, we might (re)consider the bargaining framework proposed by Tirole (1988) and adapted by Hoopes et al. (2003). Building on the classical economic distinction between *use value* and *exchange value* (Bowman and Ambrosini 2000), this framework sees exchange as a process involving consumers' evaluation of new value propositions in terms of expected utility—their expected use value—translated into a maximum price that they are *willing to pay* (WTP) in exchange for the good, which is approximated as the total consumer value. The money selling price, or exchange value, is set by the producer, who hopes to sell at a price as close as possible to consumer WTP and at some marginal rate above the total cost of production, which would earn her a profit.[4] Trade (purchase) occurs, then, where the use value of a good exceeds its exchange value. This is true for both parties to the transaction.

[4] This logic is constrained to the single-buyer case, or where supply is sufficient to satisfy all demand. Where it is not, the logic is similar, but is extended to the margin. That is, the seller would price her good at the marginal willingness to pay that her supply affords, assuming she could reach the whole market. If she had 10 wares, she would want to price her good at or just below the tenth highest valuing customer's willingness to pay. If customer awareness and accessibility are a problem, as in real-world scenarios, this logic becomes even more complex, requiring the integration of uncertainty bearing.

According to our exposition of subjective value, however, exchange value should not be equated with the seller's stated money price, but should instead also be understood in terms of use value, i.e., as the expected satisfaction to be obtained from the good via trade. Trade, then, is understood here in terms of subjective use values alone—it occurs where, for both exchange partners, the use value of the certain good(s) received exceeds the use value of that which is given up. The overall value of a good to its owner can then be understood to be the larger of its use value (to the owner) or its exchange value (the use value that could be obtained from it via trade), according to the preferences of the individual and market demand for the good.

Market prices occur where some exchange medium (i.e., money), generally some good that has obtained high exchange value due to its properties in facilitating exchange (Menger 1892; Mises 1953), is used to facilitate present and future trades. Prices are set more or less arbitrarily initially and then adjusted via bargaining (Zbaracki 2007; Zbaracki and Bergen 2010), at some level between the buyer's (consumer's) perceived use valuation and the seller's (producer's). As a result, Hayek (1931, 1945) argued, prices embody key information about the marginal values that consumers hold (collectively or semi-collectively) and about various conditions of the economy (e.g., the scarcity of its resources and alternative uses for those resources).

Value, then, is often said to be "captured" by both the consumer(s), who purchases the good, in the form of consumer surplus, as well as the producer(s), who obtains from its sale new consumption power to satisfy his/her own wants as a consumer, in the form of producer surplus. The exchange price, as per standard economic theory, establishes the relative proportions of consumer surplus and producer surplus. Consequently, according to monopoly theory, a seller of a highly valued good for which there are no appropriate substitutes, as seen from the consumer's perspective, is able to charge a higher price and thus "capture" a larger share of the value as producer surplus (and consumer surplus is proportionally smaller). Similarly, a monopsonist is able to capture most of the surplus by exercising buyer power. In a perfectly competitive market, in which no seller or buyer has market power, surplus is equally distributed.

However, the money magnitudes of these created surpluses fail to indicate the actual subjective value for the parties and, therefore, cannot accurately explain or predict their respective behavior. Economists typically rely on general equilibrium reasoning in order to treat the objective money price as an approximation of (aggregate-level) subjective value. But, as we previously observed, the use value, for both parties of the exchange, is uncertain. For the buyer, there is value uncertainty with respect to the purchased good's actual ability to satisfy her want in use. For the seller, there is also value uncertainty, but it is augmented by the transaction's greater distance from actual value creation (see Fig. 2); the sale of the product generates money income that is used, first, to cover already assumed production costs and, second, if the sale generates profit, the remainder can be used in the market to procure goods to satisfy wants. Thus, value "capture" is, perhaps, too strong a descriptor of the producer's proceeds from the transaction. Instead, both the producer and the consumer walk away from any exchange with *expected surplus*, the actual value of which remains yet to be determined.

3 Subjectivism, opportunity, and entrepreneurship

Entrepreneurship comprises the economic function whereby the producer and consumer perspectives are connected through the producer-entrepreneur's creation of uncertain value propositions for the consumer (Mises 1998). But what does such a subjectivist perspective entail for entrepreneurship theory? What, if anything, does this change?

3.1 The entrepreneurial opportunity

Interestingly, contemporary entrepreneurship theory originated in Austrian subjectivism. Its modern interpretation, the individual-opportunity nexus (Shane and Venkataraman 2000; Shane 2003), was developed from Kirzner's (1973) work (Douhan et al. 2007), which was explicitly inspired by Mises (1951, 1998). This modern approach, however, integrated Austrian insights without fully embracing the philosophical subjectivism of the Austrian school in toto. The result has been paradigm-spanning incommensurability and confusion (Packard 2017).

To be more specific, entrepreneurship theory's widely used "opportunity" construct is traditionally depicted as a situation in which "prices do not accurately represent the value of goods, and the potential exists to generate a better alternative to buying or selling resources than the one that currently exists" (Shane

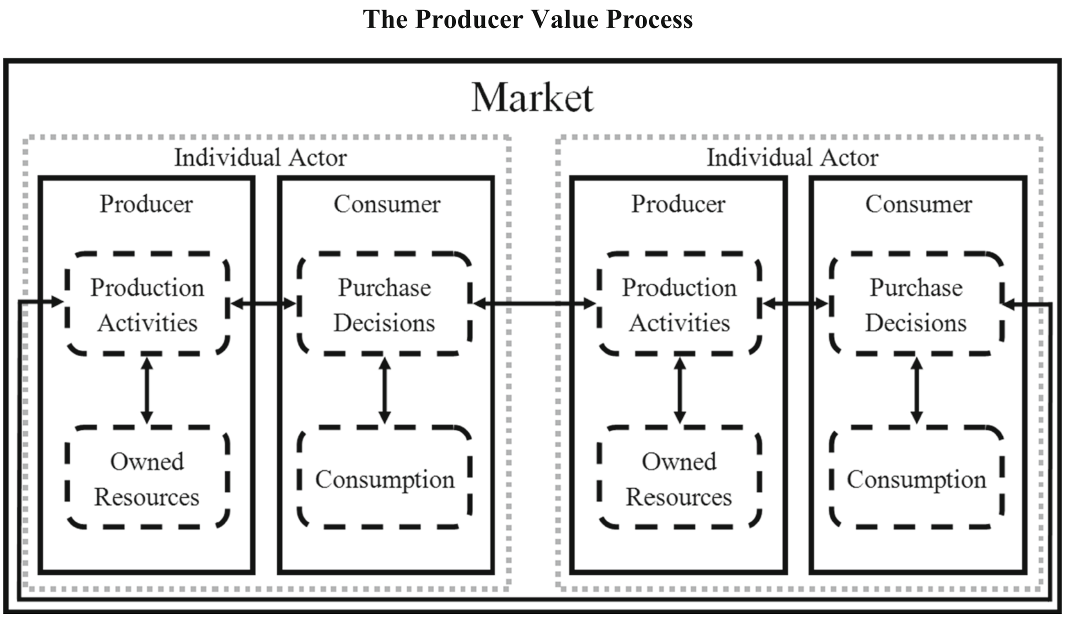


Fig. 2 The producer value process

2003: 40). These realist foundations of entrepreneurship theory have been widely criticized (e.g., Alvarez et al. 2013; Davidsson 2015; Klein 2008; Packard 2017), and entrepreneurship scholarship has become divided on its core construct.

The individual-opportunity nexus misleads entrepreneurship theory onto reified grounds of objectivist causation where, in fact, there is none. Opportunities do not *exist* within the market in any real or objective sense. This comes to be easily recognized when one carefully considers what is meant by a "market." Economists' tendency to treat economic markets as abstract and objective "things" has misled to many theoretical mistakes. But a market is, in fact, not objective at all. It is a subjective construct—*people* who come together under their own voluntary auspices for their subjective purposes, which are attained more readily through voluntary cooperation. When we make claims, from the outside, that there are "errors" in the market (Eckhardt and Shane 2003; Shane 2003), and that consumers are acting "irrationally" (Ariely 2009), we shoulder assumptions that are not scientifically justifiable. Do we really know consumers' subjective goals and intentions such that we can say that they have acted wrongly?

The traditional reification of social constructs causes several problems for entrepreneurship theory. One is that it supposes entrepreneurship to be deterministically caused, a mere link in the chain of inevitable causal events rather than a contingent voluntary action of goal-driven actors. While so doing vastly simplifies the analysis, it in fact vastly *over*simplifies it, resulting in scientific overconfidence and erroneous conclusions. For example, Shane (2003: 40) supposes the entrepreneur's borne uncertainty to be "[b]ecause prices do not contain all the information necessary to make decisions about the value of resources." In other words, he depicts it as an *epistemic uncertainty* problem only and not the *aleatory uncertainty* problem it truly is (Packard and Clark 2020). Because, ultimately, consumers determine entrepreneurial outcomes (Mises 1951), the reduction of opportunities to mere price discrepancies is incomplete and misleading.

More recent attempts to rescue the opportunity construct while maintaining adherence to realism have cast opportunities as objective "propensities," like a seed's propensity to become a tree under the appropriate conditions (Ramoglou and Tsang 2016, 2018). While we can certainly see the appeal of such an approach, this runs into problems of indeterminateness. For example, while a piece of wood has a *propensity* to become a beautiful wood carving, it also has the propensity to become a piece of a house, a fire, a doorstop, a shelf, a baseball bat, a fence, and literally endless other possibilities (Packard and Clark 2020; Packard et al. 2017). McMullen (2015: 664) puts it thus:

> "[T]his deterministic conception of opportunity is flawed. Opportunity is not an oak tree born of an acorn of an idea. It is more like a stem cell that can grow into a host of body parts given the necessary environmental conditions. Using the stem cell analogy, it is much more difficult to look at the body part and determine the nature of its originating cell. If opportunities were like an acorn, then the question would merely be: which environmental conditions encourage or discourage the seed from fully developing?"

In other words, the affordances that an "object" possesses very rarely imply *specific* propensities; instead a propensity is a mental construct, a subjective concept determined by imaginative minds (Packard 2018). By deciding a single possibility to be the objective propensity of a resource and, from it, the source of opportunity misses the infinity of possibilities that all things are truly capable of (Lachmann 1978; Penrose 2009).

Opportunity creation theory (Alvarez and Barney 2007, 2010; Alvarez et al. 2013) comes somewhat closer to subjectivism but still does not quite reach it. Instead, it theorizes social construction or enactment processes as, essentially, reification processes, whereby objectively real opportunities emerge out of changes in social perception. More recent clarifications (Alvarez and Barney 2013; Alvarez et al. 2014) suggest that opportunities thus understood are *not* ontologically real, but are only "epistemically real." Yet, we find the discussion of a non-ontological reality confused, given that ontology is the study of the "real." The result is a confused opportunity concept that is subjectively objective. Careful analysis reveals that creation theory's evolutionary realism suffers the same stratified paradigm incommensurability issues as its critical realist counterpart (Packard 2017).

3.2 The subjectivist opportunity

From a truly subjectivist perspective, because value is established only in the consumption of goods, the notion of an entrepreneurial opportunity is necessarily premised on *predicted* value only. Thus, an "opportunity" has no ontological status—it is not *real* in any meaningful sense—but is only perceived by the imaginative entrepreneur and will be realized only if the entrepreneur correctly predicts the value facilitation capability of the intended goods offering. The entrepreneur bears the uncertainty of whether the undertaking generates accounting profit, and thus the firm's surplus, but the value uncertainty is yet to be borne by the consumer. As consumers have no good to consider, their preferences (or not) for it are both unknown and unknowable.

Adopting the subjective value construct defined and explained previously, predicted value and, thus, entrepreneurial opportunity is recast as a type or result of empathic imagination (Kier and McMullen 2018), ontologically unreal and, thus, unknowable ex ante. While, as Davidsson (2015) and Klein (2008) have argued, this casts the viability of the opportunity construct into question, we hesitate to discard the construct altogether because it is, at least, theoretically useful. However inasmuch as it remains a temptation for scholars to reify such subjective opportunities, it may be better for us to simply move on from it.

A subjective "opportunity" (Korsgaard et al. 2016), if we stick with the infamous term, is an expectation of future subjective value through the satisfaction of consumers' wants and, more importantly, their needs. In fact, because the "customer problem" (Hsieh et al. 2007; Shane 2000) that the entrepreneur looks to solve is, ultimately, a customer *need*, we might find new clarity in redefining the entrepreneurial opportunity as an unmet consumer need perceived by the entrepreneur. Doing so untethers the opportunity problem from the innovative solution to it, which have traditionally been tied. We find this untethering to be necessary and important, as each such opportunity has, in fact, endless possible solutions to it, any number of which might turn out to be economically viable. The opportunity, then, is not in the specific solution chosen, but the value potential of the yet unmet need. Thus, we define the subjective "entrepreneurial opportunity" as an *unmet consumer need, subjectively perceived*, where "unmet" reflects any remaining "uneasiness" (Mises 1998) not yet fully mitigated, or which could be better satisfied (Packard 2019).

A subjective value foundation also implies that the entrepreneur is most successful when one empathically imagines the real future wants of consumers' best (McMullen 2010, 2015), thereby generating the best solution to satisfy those wants. However, it also implies that the best solution may not always succeed, as the consumer suffers from value uncertainty also. Thus, the consumer must become persuaded that a new value proposition is worth the marginal opportunity cost of its acquisition, given the uncertainty of its consumption value relative to the comparative certainty of familiar solutions.

In short, a proper understanding of subjective value recasts entrepreneurship as the two-sided navigation of radical value uncertainty, both by producers and by consumers, in that never-ending quest toward higher value states. It is opportunity exploitation only insofar as we depict opportunity as empathic imagination and do not fall into the furtive trap of reification.

3.3 Subjectivist entrepreneurship

Let us conclude with a brief foray into what a subjectivist theory of entrepreneurship might look like and how it would be different from prevailing entrepreneurship theories. There are many forms that a subjectivist entrepreneurship might take. For example, it might include a subjectivist opportunity, as we have just defined it, or it might not (e.g., Davidsson 2015; Foss and Klein 2012). It might center on judgment (e.g., Brown et al. 2018; Foss and Klein 2012) or it might not (e.g., Lerner et al. 2018; Sarasvathy and Dew 2013). What we put forth here is one possible form. But whatever theoretical mechanisms we come to decide as most apropos, the central foundations must be truly subjectivist and no longer merely idiosyncratic.

Like many, we see entrepreneurship as an individual journey (Garud et al. 2018; McMullen and Dimov 2013; Packard et al. 2017; Selden and Fletcher 2015), a continuous value-learning process, as depicted previously (see Fig. 1). Subjectivism, however, observes that this journey or process is primarily *mental* (epistemic) and only secondarily active (ontological). That is, the bulk of this journey is a series of imaginations, judgments, and learning over time regarding, for example, what is needed (what problems to solve), what resources are available, what those resources can do, what can and should be done with them (in combination), how to do it, and, perhaps most importantly, *why*. What are the goals and ends that the prospective entrepreneur aims for? How might entrepreneurship accomplish those ends?

Scholars might note strong similarities between this subjectivist journey and the effectuation process (Sarasvathy 2001; Sarasvathy and Dew 2005). Indeed, we expect a subjectivist theory of entrepreneurship to be akin to, or perhaps based on, effectuation theory. The present form of effectuation theory is not a “theory of entrepreneurship” per se, as its primary aim is to explain different “types” of entrepreneurial processes and their performance differences and not an explanation of entrepreneurship in toto. However, it seems to us very plausible that effectuation theory might be expanded into a whole and robust subjectivist theory of entrepreneurship. Or, perhaps, a subjectivist theory might emerge outside of effectuation, such as the entrepreneurial judgment approach (Foss and Klein 2012), which would then integrate the bulk of effectuation theory’s insights into a new and more holistic process theory.

The main insight that we wish to convey here, however, is that entrepreneurship is not *caused*. It is not a link in the chain of inevitable events. We cannot scientifically discover its causal origins, at least not in full. Entrepreneurship is *chosen*. It is a subjectively and contingently chosen path toward a subjectively determined end. Our task, as entrepreneurship scholars, then, is not to discover the causes of and predict entrepreneurial action, but to understand and explain the mechanics of entrepreneurship. Why is a new venture a viable pathway toward particular ends and not others? What effects does new venturing have on economic processes? And can we, as scholars, perhaps facilitate more successful entrepreneurship by merely avoiding the pitfalls of misleading entrepreneurs through overly objectivistic claims to scientific knowledge? Thus, the subjectivist paradigm proffers a very different and, we think, more productive framework for thinking about, teaching, and doing entrepreneurship.

3.3.1 Policy implications of subjectivist entrepreneurship

Adopting such a radically subjectivist view of entrepreneurship (cf. Chiles et al. 2010) offers important implications for public policy initiatives aimed, specifically, at the encouragement and facilitation of entrepreneurial activities. Such policies are motivated by the clear and strong positive correlation between entrepreneurship and economic growth (Acs and Szerb 2007; Wennekers and Thurik 1999). However, the typical such policy is designed from a positivist paradigm—i.e., from a perceived capacity to positively augment entrepreneurship rates by manipulating causal factors (cf. Lerner 2009).

Our subjectivist foundations imply that this view and policy approach is generally wrongheaded. This is not to say that entrepreneur could *not* be thus facilitated by, e.g., allocating investment capital for ventures or providing resource and networking initiatives. However, the main point is that why and how entrepreneurship happens is not objective or deterministic. The tendency to see all entrepreneurship uniformly promotes general policies that are not widely effective due to their inapplicability to many ventures. More importantly, policies have important costs that a general public, composed almost fully of prospective entrepreneurs, must bear (Bylund 2016b). Because policy makers cannot know from whence new ideas might emerge, they cannot properly allocate resources to their best ends and, thus, policy efforts are prone to impede rather than facilitate entrepreneurial efforts (Mises 1998). Policies, to whatever extent that they interfere with the spontaneous market process, are prone to alter (either dampen or augment) the incentives for specific entrepreneurial actions (e.g., Wood et al. 2016) and, thus, alter the subjective prioritization of entrepreneurial market correctives. Such policies can only augment the market outcome, then, if the policy makers can be assured to have superior individual knowledge than the dispersed knowledge of their constituents of what (subjective) ends are best for each; for only in such a case can the policy maker safely intervene in the market process to allocate scarce resources toward one end (through a particular means) rather than others to attain a superior outcome.

4 Conclusions

Our traditional adoption of an objectivist value construct, wholly or partially, puts the cart before the horse: value is assumed to exist, or to be knowable, before it is realized through consumption. As a result, the uncertainty borne by both producers (entrepreneurs) and consumers is severely circumscribed theoretically and, therefore, underestimated. It also understates the role of entrepreneurship in the economy, which requires much greater imaginative foresight and willingness to break new ground than is commonly recognized. Entrepreneurship is not, as economists might have us believe, the "simple" pursuit of maximum money profits. From a value subjectivity point of view, entrepreneurship is the aligning of organized production with the best imagined value facilitation through goods provision (Bylund 2016a).

Furthermore, our discussion suggests that predictions and recommendations based on theories that explicitly or implicitly rely on objective conceptions of value become misdirected. While traditional strategic entrepreneurship considers the positioning of the venture relative to direct competitors, a more effective strategy, based in a truly subjective value concept, focuses on the firm's value proposition—and thus the positioning relative to alternative solutions from the perspective of the consumer.

Finally, building upon a truly subjective, and not merely idiosyncratically determined, value concept, the market process, and entrepreneur's role within it, can be revised and developed into a far more nuanced and elaborate theory of political economy than the standard equilibrium-based model. The revised process model places the consumer, with her endless pursuit of greater well-being, subjectively understood, center stage as the true sovereign in the market process. This suggest a radical shift in theoretical perspective toward the demand side, as some have already advocated (e.g., Priem 2007; Priem et al. 2012; Webb et al. 2011). Such a shift would facilitate a new age of entrepreneurship theorizing, one that we believe would produce far more successful practitioner and policy recommendations than has hitherto been achieved.

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