

Schumpeterian entrepreneurship as dual mediation between markets and between heterogeneous resources

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Abstract

The dualism of Joseph Schumpeter's personal and depersonalised concepts of entrepreneurship, together with his thesis about the obsolescence of the entrepreneur leading to the downfall of capitalism, have spawned contradictory interpretations and divergent research traditions. Richard Langlois proposes to resolve this dualism and the obsolescence thesis by defining entrepreneurship in terms of charisma and also applying it to corporate leaders. We disagree with Langlois's solution and instead define entrepreneurship as a dual mediation between markets and between heterogeneous resources. Our solution nevertheless shares similarities with Langlois's own entrepreneurial theory of the firm and builds on the post-Schumpeterian evolutionary economics literature.

1. Introduction

Joseph A. Schumpeter's (1911) theory of economic development, together with his subsequent work in economic sociology and history (1942), ranks among the most influential efforts to define and explain entrepreneurship and innovation. Besides being the first substantial treatment of entrepreneurship in economics and becoming a foundational moment for entrepreneurship studies (Becker and Knudsen, 2009; Bull and Willard, 1993), Schumpeter's work has also given rise to multiple streams of research in a number of other disciplinary areas, including the evolutionary theory of the firm (Nelson and Winter, 1982), the literature of technological change (Cohen, 2010; Galbraith, 1952, 1971), and innovation studies (Fagerberg and Verspagen, 2009). Schumpeter has been cited as inspiration for

developing government policies (such as the European Union's 2000 Lisbon Agenda (Jessop, 2006)) and political and economic models such as the "Schumpeterian Competition State" (Jessop, 2002) and the "knowledge economy" (Adler, 2001). Giersch (1984) even proposed to call the final quarter of the 20th century the "age of Schumpeter" (superseding the "age of Keynes"), in acknowledgment of the profound influence his work has been having on so many different domains.

Nevertheless, despite the widespread popularity of Schumpeter's ideas, scholars argue that the main thrust of his entrepreneurship theory continues to be ignored, misunderstood or underexplored, even within entrepreneurship studies (Aldrich 2005; Becker and Knudsen, 2009). Many adoptions of his ideas are based on partial interpretations that are considered to be inconsistent with Schumpeter's original theories (Langlois, 2003). There are disagreements within Schumpeterian scholarship itself about some of the foundational concepts of Schumpeter's entrepreneurship theory, including the very definition of entrepreneurship and the nature and role of the entrepreneur (Hagedoorn, 1996). For some, Schumpeterian entrepreneurship has to do with the creation of new organisations (e.g. Katz and Gartner, 1988), while for others, it is mainly about innovation and innovativeness within large corporations (e.g. Kanter, 1983).

One of the reasons for this state of affairs has to do with the complexity and ambition of Schumpeter's overall project, who was aiming to make a contribution not only to economics but, among others, also to economic sociology and economic history (Shionoya, 1997). His ideas on entrepreneurship were presented within an overarching sociological and historical argument about the nature and future of capitalism, as an economic, political, and cultural order. The crux of this argument, which has come to be known as the *obsolescence thesis*, states that the gradual substitution of individual-led entrepreneurship in small firms with collectively-performed innovation in large corporations will lead to a peaceful

transformation of capitalism into socialism. This will happen because the elimination of start-ups will also eliminate the bourgeoisie, the social class that is built on the wealth created by founders of start-ups and which has the greatest interest in preserving the institutions of democracy that are responsible for the stability of capitalism.

The obsolescence thesis has long been interpreted as evidence of a break in Schumpeter's thinking and career: for 'early Schumpeter' entrepreneurship was driven by a particular type of individual (the entrepreneur), while for 'later Schumpeter' entrepreneurship became a depersonalised corporate function (Acs and Audretsch, 1988; Becker and Knudsen, 2002, 2003; Harper, 2008). Depending on which angle interpreters had adopted on this debate, Schumpeter-inspired research either took off in the direction of the "impersonal function," such as the economics literature on technological change (Cohen, 2010) and the evolutionary theory of the firm (Nelson and Winter, 1982), or into sociological and psychological studies of individual entrepreneurial characteristics, such as the literature on entrepreneurial traits and cognition (De Vries, 1977; Grégoire et al., 2010; McClelland, 1961).

However, there are also some alternative explanations for the seemingly contradictory definitions of entrepreneurship in Schumpeter's work that challenge the prevailing view about the existence of "two Schumpeters." Among them, Richard N. Langlois (1998, 2003, 2007a) has put forward the most compelling and in-depth argument, claiming that the duality of personal and impersonal concepts of entrepreneurship has been there in Schumpeter's work all along. Langlois finds the reasons for the tension between the disparate concepts of personal and impersonal entrepreneurship in Schumpeter's philosophical assumptions. He goes on to suggest that Schumpeter's obsolescence thesis is an implementation of Max Weber's (1947) idea of the *progressive rationalisation* of economic life, which Schumpeter took too far, by envisioning that the collective rationalisation of entrepreneurship will make

individual entrepreneurs redundant in the long run. To reconcile the Schumpeterian dualism between personal and corporate forms of entrepreneurship, Langlois reaches for another of Weber's concepts, that of *charismatic authority*, to suggest that the essence of entrepreneurial leadership for Schumpeter rests in the individual entrepreneur's charisma. The tension between personal and impersonal entrepreneurship can be overcome, Langlois argues, if we accept that corporate entrepreneurship is also led by charismatic leaders.

In this paper we examine Langlois's propositions for resolving the personal-impersonal dualism in Schumpeter's entrepreneurship theory, and then we offer an alternative solution that is based on our interpretation of Schumpeter's work. We disagree with Langlois about the central role he assigns to charismatic authority in Schumpeter's concept of entrepreneurship, and about the suitability of this concept for reconciling the personal-impersonal dualism. We propose that instead of a dualism there is a tripartite structure at the heart of Schumpeter's entrepreneurship theory, connecting *impersonal*, *individual*, and *collective* notions of entrepreneurship. These three concepts point to an alternative definition of entrepreneurial leadership that is decidedly not charismatic. We will argue that for Schumpeter entrepreneurship consists of a *dual mediation* that is both a market process and a construction process simultaneously. Entrepreneurs—whether individual or institutional—mediate, on the one hand, between heterogeneous resources that they assemble into new combinations (the new enterprise and its outputs), and on the other hand, between multiple supply- and demand-side markets, where they acquire these heterogeneous resources from, and to which they sell the outputs. As for the obsolescence thesis, in our view it is based on a paradoxical—and unjustified—assumption on the part of Schumpeter that entrepreneurship, which he defines as the breaking of routines, can itself be routinised. It does not explain how and why routinised innovation in large corporations could terminally replace disruptive innovation by start-ups.

We will use the following four questions to structure our discussion, in which we compare and contrast Langlois's interpretation of Schumpeter's entrepreneurship theory—and the obsolescence thesis—with our reading:

1. What is the explanation for the dualism of personal and impersonal concepts of entrepreneurship?
2. Is Schumpeter's obsolescence thesis coherent?
3. Has the obsolescence thesis been validated by economic history?
4. How to build on Schumpeter's entrepreneurship theory and the obsolescence thesis?

We will start by reviewing Langlois's reading of Schumpeter. Then we present our alternative interpretation and discuss its implications for the study of entrepreneurship.

2. Langlois's interpretation of Schumpeter

2.1. Langlois on the personal-impersonal dualism

Langlois's position regarding the first question—how Schumpeter's personal and depersonalised conceptions of entrepreneurship can be reconciled—is that the two definitions reflect a division not within Schumpeter's own personal development as a scholar, but within the history of capitalism. Personal entrepreneurship characterises 'early capitalism,' where small owner-managed firms were prevalent, while entrepreneurship as an impersonal function describes 'later capitalism,' where large corporations dominate (Langlois, 1998, p. 197). The obsolescence thesis therefore is a concept rooted primarily in economic history and sociology, and so is the personal-impersonal distinction.

Langlois (2007a) argues that Schumpeter's obsolescence story is a direct implementation of two key ideas of Max Weber: *progressive rationalisation* and *charismatic leadership*. Progressive rationalisation—as a defining characteristic of capitalism—will result in the collectivisation of rationality (in the form of large corporations) that will make the

charismatic leadership of individual entrepreneurs redundant, thus bringing their era to a close: "The entrepreneurial role is then taken up by large bureaucratic firms, organized along rational lines, who can engineer change without need for charisma" (Langlois, 2007a, p. 45). The gradual elimination of small start-ups in Schumpeter's (2008 [1942]) view will lead to the decline of the bourgeoisie and a rise in collectivist values, paving the way to a peaceful transformation of capitalism into socialism.

Langlois is correct to emphasise the theme of rationality in Schumpeter's obsolescence argument. There is plenty of evidence in Schumpeter's texts to attest to the close resemblance between his concept of the gradual obsolescence of entrepreneurial leadership and Weber's progressive rationalisation argument. Schumpeter (2008 [1942], pp. 122-123) held that there is a strong link between the development of rationality and economic behaviour, as part of human evolution: "it is the everyday economic task to which we as a race owe our elementary training in rational thought and behaviour—I have no hesitation in saying that all logic is derived from the pattern of the economic decision." Schumpeter (1928) saw empirical confirmation of Weber's thesis all around him: he thought that during his lifetime capitalism has moved from a "competitive" (dynamic and *laissez-faire*) stage to a "trustified" ("organised", "regulated," or "managed") stage, reflecting a shift from a type of capitalism where innovation was driven by start-ups to one where innovation had become the preserve of long-established large corporations.

2.2. Langlois on the coherence of the obsolescence thesis

Langlois's answer to the second question, whether the obsolescence thesis is conceptually coherent, would be a "no." In his view (2007a, p. 46), Schumpeter took Weber's progressive rationalisation idea too far, beyond the bounds of the original Weberian framework: "On the matter of bureaucracy replacing entrepreneurial capitalism, we can note that Weber came down explicitly *against* the possibility of socialist calculation." Langlois

(2007a, p. 33) suggests that the reason behind Schumpeter's misapplication of Weberian concepts may lie in a philosophical confusion: Schumpeter attributes two incompatible epistemic theories to the two distinct categories of economic agents that he is concerned with. Individual entrepreneurs are thought to operate with an *empiricist* theory of knowledge, while the calculating collectives of large corporations are presumed to work with a *rationalist* epistemology. In effect, we have a dichotomy of inductive contra deductive reasoning here. In the case of individual entrepreneurs, "the nature and source of the agent's knowledge is empirical in character; it is gained from experience rather than deduced" (Langlois, 2007a, p. 35). When it comes to a collectivised economic agent (such as a corporation), its rationality is "consisting entirely in logical deduction from explicit premises" (Langlois, 2007a, p. 35). In Langlois's estimation Schumpeter goes awry with the obsolescence argument when he presumes that collectivised rationality will be able to replace the empirically-based cognition of the empirical entrepreneur with deductive calculation.

2.3. Langlois on the empirical validation of the obsolescence thesis

Regarding the third question, Langlois's response would be that economic history has not validated Schumpeter's thesis either. Relying primarily on the past 200 years of US economic history, Langlois (2007a) argues that while Schumpeter was correct to observe the rise of large corporations that had occurred during his lifetime, the relative importance of bureaucratic firms concerning innovation has been in decline since the 1980s, with innovation being driven increasingly by external "de-verticalised" networks and markets. Langlois (2007a) presents this history by using Adam Smith's "invisible hand" metaphor to characterise the early stage of American capitalism as market-driven and dominated by small firm entrepreneurship; using Alfred Chandler's "visible hand" metaphor to refer to the rise of large bureaucratic organisations that Schumpeter was so concerned about; and introducing his own notion of the "vanishing hand" to represent the decline of the corporation's

dominance in innovation and the re-emergence of market-driven competition thanks to a period of distributed innovation. In contrast to Schumpeter's apocalyptic vision of "trustified capitalism" becoming the ante-room of socialism, Langlois sees the monopoly of large corporations over innovation in Schumpeter's time as "a temporary episode that arose in a particular era as the result of uneven development in the Smithian process of the division of labor" (p. 102).

Gaining a permanent advantage from the routinisation of innovation by a large corporation is not possible for two reasons according to Langlois (2007b). On the one hand, the innovating capabilities of large firms will tend to be limited to taking advantage and making full use of the resources they already possess. They may excel in incremental innovation, but not in the disruptive innovation that Schumpeter means by 'entrepreneurship': "This implies that an entrepreneurial firm must be either a new firm or a firm somehow willing and able creatively to destroy its own memory" (Langlois, 2007b, p. 1119). On the other hand, the innovativeness of large firms also depends on the *dynamic transaction costs* (Langlois, 1992) associated with the transfer of their value-producing activities. Once market conditions become favourable for the dispersal of the relevant capabilities, the "vanishing hand" takes over and the large firm's innovative advantage is eroded by the imitative actions of competitors: "as time passed, the capabilities that were once managed more cheaply within the corporation would start to leak out to others" (Langlois, 2007b, p. 1118).

2.4. Langlois on amending the obsolescence thesis

Concerning the fourth question, how to build on Schumpeter's obsolescence thesis and entrepreneurship theory, Langlois (2007a, p. 24) attempts to resolve the impasse between personal and impersonal concepts of entrepreneurship by extending the notion of personal charismatic authority to also cover corporate intrapreneurship and executive leadership (thus

combining Schumpeter's entrepreneurship theory with Chandler's theory of the corporation):

Whether Schumpeterian entrepreneurship operates from the top of an existing organization or in the creation of new ones, the same conclusion seems unavoidable. The charismatic authority and coherent vision of such entrepreneurship remains an inevitable part of capitalism, however modern.

(Langlois, 2007a, p. 65)

This solution, however, is out of kilter with Langlois's other argument that there has only ever been one Schumpeter, as it allies him with the personal conception of entrepreneurship that is usually attributed to the 'early Schumpeter.' The question "What to make of Schumpeter's depersonalised entrepreneurial function (the 'impersonal entrepreneur')?" which Langlois initially agrees is simultaneous to the personal concept, thus remains unanswered.

3. Our interpretation of Schumpeter vis-à-vis Langlois

We agree with Langlois's (2003, 2007a) original assertion that there are no "two Schumpeters," as personal and impersonal concepts of entrepreneurship can be found to co-exist throughout Schumpeter's oeuvre. We agree that this gives rise to a contradiction that calls for a resolution—or at least an explanation. We accept that to a significant extent Weber's progressive rationalisation thesis does explain the logic behind Schumpeter's obsolescence thesis. We also concur with Langlois that Schumpeter's obsolescence thesis does contain a philosophical tension between rationalism and empiricism, which, as we will show, is mirrored in Schumpeter's methodology.

However, our reading of Schumpeter also makes us depart from Langlois's interpretation on several significant points. We disagree with Langlois's proposal on how to resolve the personal-impersonal tension within Schumpeter's definition of entrepreneurship.

While Langlois eventually chooses to emphasise the personal element over the impersonal aspect, we will argue that this distinction serves an important purpose in Schumpeter's methodology and that it is something that needs to be emphasised, rather than eliminated. Schumpeter's error lies not in making a distinction between impersonal and personal aspects of entrepreneurship but in the ways in which he applies the impersonal concept to individual and institutional forms of innovation within his obsolescence thesis (by making them equivalent, thus allowing the former to be substituted by the latter).

We also disagree with the prominent role that Langlois ascribes to Weberian charismatic authority in Schumpeter's definition of the entrepreneur and within the obsolescence argument itself. In our view, Schumpeter has an altogether different kind of leadership in mind when he talks about entrepreneurship. We will explain our overall argument in the following by reviewing our responses to the four questions that we used to evaluate Langlois's propositions.

3.1. The nature of entrepreneurial leadership

In reference to Langlois's position regarding the first question (Section 2.1.), we accept that Schumpeter does make a distinction between earlier and later stages of capitalism, and that the personal vs. impersonal categories of entrepreneurship are, to some extent, associated with those respective historical periods in his theory, as part of the obsolescence argument. However, in our view this correspondence in itself does not resolve the simultaneous occurrence of personal and depersonalised conceptions of entrepreneurship in Schumpeter's work. Instead, we propose that the personal-impersonal dualism arises out of Schumpeter's particular method of economic theory-construction, and the manner in which he utilises his economic concepts in his sociological and historical descriptions.

Shionoya (1997, pp. 105-107) defines Schumpeter's method as an idiosyncratic version of *methodological instrumentalism*, and summarises its key principles in seven

points: 1) hypotheses are not real but the creations of the human mind; 2) theories are not in themselves descriptions of the real world and therefore they have no inherent truth (or falsity) content; 3) instead, theories are merely tools for conducting descriptions, by creating models that 4) should be as simple and complete descriptions of facts as possible; 5) hypotheses do not need to be justified because 6) their purpose is not to convey or capture truth but to succeed in producing a theory that fits the facts; 7) empirically observed facts are independent of theories and can be explained by multiple different theories.

In light of Shionoya's interpretation of Schumpeter's methodology as a form of instrumentalism, the depersonalised concept of entrepreneurship—as an economic function—needs to be understood as merely *an instrument* for constructing a theory of economic development; and as such, it applies *equally* to individual and collective performances of entrepreneurship in the empirical realm. Therefore, it is a mistake to define the problem of Schumpeterian entrepreneurship in terms of a dualism or dichotomy of personal and impersonal forms. At a theoretical level, all forms of entrepreneurship are impersonal. It is only in a subsequent methodological step—as part of the construction of the obsolescence argument as a sociological and historical description—that a conflict develops between individual-led and institutional forms of entrepreneurship. While there is no distinction between the two forms of entrepreneurship in terms of economic theory, they differ for Schumpeter as sociological and historical phenomena.

Therefore, instead of the dual dichotomies of *personal vs. impersonal* and *personal vs. collective* conceptions of entrepreneurship in Schumpeter's theory, it would be more accurate to refer to a tripartite structure of entrepreneurial concepts split alongside a methodological divide and a sociological/historical divide. Methodologically speaking, we need to distinguish between the deductive, “economic theory” concept of the impersonal ‘entrepreneur’ (as a theoretical device) on the one hand, and the sociological categories of

individual entrepreneurs and entrepreneurial collectives on the other. The economic theory description that uses 'the entrepreneur, the concept' applies to entrepreneurship performed by individuals and collectives equally. The sociological divide occurs only on the empirically observable side of the methodological split, represented by the individual-collective distinction, which is also used to articulate the difference between 'earlier' and 'later' capitalism in Schumpeter's sociological and historical descriptions.

In our view, Langlois's proposition—that the dualism of personal and impersonal concepts of entrepreneurship can be resolved first by interpreting them as representing 'earlier' vs. 'later' stages of capitalism respectively (as an application of Weber's progressive rationalisation argument), and then extending Weber's charismatic authority concept from personal entrepreneurship to institutional innovation—is an insufficient solution for two main reasons. Firstly, it does not recognise the primary distinction between the theoretical construct and the empirical domain that we have outlined above, and the resulting tripartite structure. Secondly, it is based on the assumption that Weberian charismatic leadership is the central characteristic of the Schumpeterian entrepreneur, which, as we will show in the following, is incorrect. Instead, we will argue that entrepreneurial leadership for Schumpeter consists primarily of a dual mediation between productive means, and between markets.

3.1.1. 'Entrepreneur' as an impersonal construct

Let us first examine our claim that the impersonal (or depersonalised) concept of the entrepreneur is primarily an artificial theoretical construct, the purpose of which is to explain entrepreneurship (as innovation), regardless of whether it is performed by an individual entrepreneur or by a collective (such as a corporation). When his 1911 edition of *The Theory of Economic Development* was accused of 'hero worshipping' entrepreneurial individuals, Schumpeter was at pains to point out that the 'entrepreneur' in question was neither an empirical description of concrete historical persons nor a sociological category representing

individuality:

Therefore one of the most annoying misunderstandings that arose out of the first edition of this book was that this theory of development neglect all historical factors of change except one, namely the individuality of entrepreneurs. If my representation were intended to be as this objection assumes, it would obviously be nonsense. But it is not at all concerned with the concrete factors of change, but with the method by which these work, with the *mechanism of change*. The "entrepreneur" is merely the bearer of the mechanism of change. (1983 [1934]; p. 61)

In other words, the concept of the 'entrepreneur' has been designated as an 'explanatory variable' within a deductively constructed theoretical model to represent the mechanism by which economic change occurs in capitalist system. The "entrepreneur" is not a person or an institution but a device of description that attempts to capture the entrepreneurial function of individual and collective actors equally.

In his essay entitled "Entrepreneur," Schumpeter (2003 [1928], p. 248) provides further insight into the method by which the impersonal concept of entrepreneurship (which he defines as describing *a particular kind of leadership*) is constructed: "...leadership is never purely embodied in concrete persons, and its essence therefore has to be carved out of a more or less complicated conglomerate by way of analysis." The impersonal concept of the 'entrepreneur,' as an abstraction, thus stands for the essence of an economic function: *entrepreneurial leadership* (which Schumpeter (*Ibid.*) distinguishes from other types of economic and social leadership).

Things become less straightforward, however, when Schumpeter, rather unhelpfully, interweaves his discussion of 'the theoretical entrepreneur, the economic function' with his sociological category of the "entrepreneurial type," which can be mistaken for an empirical

observation, even though Schumpeter claims it wasn't meant to be one. It was possibly the use of these sociological categories, appearing as attempts at immediate empirical illustration and verification of the theoretical concept (in violation of his instrumentalist principles) that seems to have led to the confusion that fuelled the charges of "hero worship," as if he was glorifying a particular type of personality.

The clearest indication that for Schumpeter the theoretical construct of the 'entrepreneur' was meant to fit individual persons and collectives in the empirical world equally, comes from a 1949 essay: "the entrepreneurial function need not be embodied in a physical person and in particular in a single physical person" (1951 [1949], p. 255). Not only does this mean that a corporation can be an entrepreneur (i.e. the actor that comes to fulfil the function as described by the theory), but so can a branch of government. Schumpeter cites the example of the agricultural innovations introduced and promoted by the US Department of Agriculture: "In this case then it was the Department of Agriculture that acted as an entrepreneur" (*Ibid.* p. 255).

3.1.2. Schumpeter's 'entrepreneurial type' and charisma

Langlois (2007a) argues that Schumpeter's definition of entrepreneurial leadership is a direct implementation of Weber's concept of charismatic authority. He goes on to extend the concept of charisma to also include corporate executives, as the cornerstone of his reconstruction of Schumpeter's theory of entrepreneurship (in combination with Chandler's concept of the corporation). From our perspective, Langlois focuses on just one possible (but not essential) sociological characteristic of the entrepreneurial type, without considering how it squares up with the theoretical notion of the 'impersonal entrepreneur' that we had isolated in Section 3.1.1.

It is possible to assemble a profile of Schumpeter's 'entrepreneurial type,' as there are numerous references to it in his work. But it is important to note beforehand that for

Schumpeter (1983 [1934]; p. 81) "being entrepreneurial" is not an essential, permanent feature of any particular individual, but a form of conduct: "In the first place it is a question of a type of *conduct* and of a type of *person* in so far as this conduct is accessible in very unequal measure and to relatively few people, so that it constitutes their outstanding characteristic." People who come to perform the entrepreneurial function may share particular capabilities that could be retrospectively summarised as constituting an 'entrepreneurial type.'

(It might be worth pointing out at this point that these sociological categories are methodologically ambiguous in the midst of Schumpeter's instrumentalist economic theory. While Schumpeter claims that *The Theory of Economic Development* does not deal with the "individuality of entrepreneurs" and that the 'entrepreneur' is merely a theoretical placeholder for the agency of economic change, his description of the 'entrepreneurial type' sounds very much like a sociological fact of empirical provenance, used as an empirical illustration of the abstract concept.)

Most of the characteristics that Schumpeter puts forward as part of his sociological description of the entrepreneurial type can be categorised as extra-rational. These include a gift for intuition for recognising new opportunities, the pragmatic capacity to "get things done," high levels of energy, will, and courage, steadfastness in overcoming resistance, and openness to experimentation (Schumpeter et al., 2002 [1911], pp. 412-414). When it comes to cognitive competences, Schumpeter occasionally manages to contradict himself, but on balance he rates the energy, will, and pragmatic disposition of the entrepreneurial type more highly than intelligence: entrepreneurship "is a feat not of intellect, but of will" (1928, p. 379). In fact, he defines the core motivations of the entrepreneurial type as utterly irrational. Entrepreneurs are driven by non-hedonistic motivations, unlike the proverbial *homo economicus*, who is presumed to act 'rationally' in classical and neo-classical economics

(Schumpeter, 1983 [1934]).

None of the characteristics we have reviewed so far (intuition, pragmatism, energy, will, courage, steadfastness, or non-hedonistic motivations) in themselves suggest an element of charisma in the Weberian (1947) sense, as a capacity for "an emotional form of communal relationship" (as cited in Langlois, 2007a, p. 42). It is true that Schumpeter (e.g. 1983 [1934], p. 86) often draws a parallel between entrepreneurship and military leadership as part of the obsolescence argument, suggesting that the gradual decline of the individual entrepreneur is similar to the diminishing role of the military commander, which could be interpreted as a case of declining Weberian charismatic authority. However, even if we allow for charisma ("authority" and "personal weight" in Schumpeter's terminology (*Ibid.*, p. 88)) to be included in the arsenal of the entrepreneurial type, as a sociological category, this does not mean that it is automatically part of the impersonal, theoretical construct of the 'entrepreneur.' In fact, there is strong evidence in Schumpeter's work to suggest that charisma was not the core concept of this theoretical construct, even if someone with the characteristics of the entrepreneurial type would probably find charisma a useful quality to have in the course of fulfilling the entrepreneurial function.

We can illustrate our differences with Langlois's Weberian interpretation by unpacking one of Schumpeter's definitions of entrepreneurial leadership that also caught Langlois's (2007a) eye: "Under the right institutional setting—bourgeois capitalism—charismatic leadership arises, in the form of the entrepreneur, to break the crust of convention and to create new wealth by "'lead[ing]' the means of production into new channels'"... (p. 43) [our emphasis]. In our view, in the passage that Langlois quotes from, Schumpeter talks about "the entrepreneur, the economic concept," and not "the sociological type." In fact, Schumpeter (1983 [1934], p. 89) defines the essence of economic leadership represented by the 'entrepreneur' of economic theory precisely in contrast to charismatic leadership: "The

entrepreneurial kind of leadership" ... "has none of that glamour which characterises other kinds of leadership. It consists in fulfilling *a very special task* which only in rare cases appeals to the imagination of the public" [emphasis ours]. Lack of glamour and mass appeal are the first indicators that suggest a departure from the Weberian type of emotional connection. In the next couple of sentences Schumpeter says even more explicitly that "personal weight," his shorthand for charismatic authority, is not the essential characteristic of entrepreneurial leadership:

'Personal weight' is, to be sure, not without importance. Yet the personality of the capitalistic entrepreneur need not, and generally does not, answer to the idea most of us have of what a 'leader' looks like, so much so that there is some difficulty in realizing that he comes within the sociological category of leader at all. (*Ibid.* p. 89)

Unlike charismatic leadership, which is emotionally based, "entrepreneurial kind of leadership" actually suffers from an affective deficit: "...we do not observe, in this case, the emergence of all those affective values which are the glory of all other kinds of social leadership" (*Ibid.* p. 89).

3.1.3. Dual mediation between markets and between productive means

How is then *entrepreneurial leadership* different from *charismatic leadership*? What is this "very special task" that is so fundamentally lacking in glamour and public appeal, yet it underpins the entire capitalist system? Schumpeter defines the entrepreneur as someone who "'leads' the means of production into new channels" (*Ibid.* p. 89). There is quite a bit of complexity packed into this definition. Schumpeter had put the verb "lead" into quotation marks presumably to emphasise the unusual nature of this leadership, as if to further highlight its difference from the Weberian notion. But the quotation marks may also allude to the metaphorical nature of this leadership, as both human and nonhuman resources are being

'led.' As he (1983 [1934]) explains in the first two chapters of *The Theory of Economic Development*, the "means of production" led by the theoretical 'entrepreneur' are the forces of "labor and land" ('labor' standing for human input, and 'land' for nonhuman materials) that are involved in both the formation of the new enterprise and its economic output (the innovation). "Leading into new channels" refers to the redirection of existing means of production into new uses, resulting in economic disequilibrium (Schumpeter's famous "creative destruction"), as opposed to the routine, circular flow of goods and money in the well-established channels of the static equilibrium model. Entrepreneurial leadership introduces *novelty*—as difference—into a world of routine repetition, in effect changing that world, by creating new routines and new flows.

How does the theoretical 'entrepreneur' (whose function can be fulfilled equally by individual or institutional actors) exercise its leadership to accomplish such a task, if charismatic authority is not its primary *modus operandi* (and especially of nonhuman resources would be unlikely to respond to charisma)?

But this he does, not by convincing people of the desirability of carrying out his plan or by creating confidence in his leading in the manner of a political leader—the only man he has to convince or to impress is the banker who is to finance him—but *by buying them or their services*, and then *using them as he sees fit*. (p. 89) [our emphasis]

The essence of entrepreneurial leadership thus for Schumpeter lies in the activities of 1) *purchasing* credit and means of production, and 2) *combining* these productive factors in a new way.

Although it was rather implicitly stated in *The Theory of Economic Development*, Schumpeter had effectively defined the function of the 'entrepreneur' in terms of a *dual mediation*. On the one hand, the 'entrepreneur' fulfils **a market function**: "it" (as a

theoretical concept) is a mediator between the supply-side markets for labour, capital equipment, raw materials and credit (i.e. heterogeneous elements for the purpose of assembling the enterprise); and also between supply- and demand-side markets (by connecting the sellers of capital goods and raw materials with the buyers of the outputs of the resulting new combination, the entrepreneurial firm). On the other hand, simultaneously, the 'entrepreneur' is also a **constructor** of a new entity: the aforementioned heterogeneous means of production need to be assembled into a stable formation that is capable of producing and distributing an innovation. As Schumpeter (1951 [1949], p. 249) put it, when summarising J. B. Say, "the entrepreneur is the agent that combines the others into a *productive organism*" [our emphasis]. Entrepreneurial leadership is the performance of a complex type of dual mediation between various markets, and between heterogeneous resources, in such a way that it results in an innovation that in turn constitutes economic development.

In a 1928 essay, Schumpeter expresses the simultaneously constructive and market-related aspects of the entrepreneur's role as mediator even more explicitly. When the concept of the entrepreneur is stripped to its bare essentials, "we are left with the function of *combining the production factors into the product*" (2003 [1928], p. 246). This formulation captures the constructive nature of entrepreneurship. However, there is also a parallel market aspect to this constructive activity:

The fulfilment of this function by a private economic subject also represents *the essence of the market economy*: ... the entrepreneur is *the carrier of the exchange acts* through which, in the case of an economy organised as a market economy, the economic process is realising itself. (p. 246) [emphasis ours]

Schumpeter (2003 [1928], pp. 246-247) defines the nature of the entrepreneur's engagement with markets in terms of buying and selling: "On the market for means of production, the

entrepreneur carries out the production-process in his role as *buyer*, and on the market for consumer goods, he carries out the distribution-process in his role as *supplier*" [our emphasis]. An essential—if not *the* essential—feature of the entrepreneur's function is *mediation between markets*: "The entrepreneur is therefore simply the middleman between the owners of productive services and the consumers" (Ibid. p. 247).

While on the one hand this definition of entrepreneurial leadership goes counter to Langlois's proposition to interpret both individual-led and corporate forms of Schumpeterian entrepreneurship in terms of charismatic authority, on the other it emphasises the market role of the entrepreneur, which is a core feature of Langlois's (2007b) entrepreneurial theory of the firm, where the entrepreneur operates by way of making judgements about the trade-offs between the costs of assembling a new firm and acquiring goods from the market.

3.2. The (in)coherence of obsolescence and the paradox of routinised routine-breaking

Concerning Langlois's position regarding the second question, whether the obsolescence thesis is conceptually coherent, we agree with him that the answer is "no," and that to some extent this has to do with Schumpeter's treatment of the philosophical distinction between empiricism and rationalism. Langlois (2007a) appears to suggest that the conceptual incoherence comes from the lack of an explanation on Schumpeter's part as to why individual and collective forms of cognition would operate with different epistemologies in the first place, and how the collective deductive cognition of institutions would rationalise—and thus make redundant—the extra-rational resources of individual entrepreneurs (such as their charismatic authority), in addition to their empiricist logic.

However, in our view the obsolescence thesis suffers from an inconsistency not only

because of the distinctions that it leaves unexplained, but also because of the distinctions it does not make. We have already shown in Section 3.1.1. that the impersonal, theoretical construct of the 'entrepreneur' applies equally to individuals and institutions. However, despite all the sociological differences that Schumpeter articulates between the individual-led entrepreneurship that was supposed to be prevalent in 'earlier' capitalism and the routinised innovation of the collective "entrepreneur-institution" supposedly dominating 'later' capitalism, there is *a fundamental equivalence* between the two, stemming from the argument that the latter can fully replace the former. In other words, there is no qualitative difference between the type of innovation performed by a start-up and the innovation taking place in a large corporation in the obsolescence argument. This proposition is surprising because it harbours a serious logical inconsistency that concerns the routinisability of innovation.

Schumpeter (1983 [1934]) defines entrepreneurship as the making of a substantially disruptive difference (an innovation), in contrast to the mere repetition—or even gradual change—of established routines that characterise a market in a state of equilibrium. The mechanisation of this fundamental aspect of the entrepreneurial function would seem to be a self-destructive process by definition. And to a large extent, this indeed appears to be one of the key points of the obsolescence argument:

Is the importance of the entrepreneurial function increasing or decreasing? It is beyond doubt that the question has to be answered in the latter sense... (...)

The only thing that can be questioned is how far this process, which in its nature cannot be stopped, has already progressed, how fast it will progress, and whether a rational economic policy can reasonably build on the present results of this process. (2003 [1928]; pp. 255-256)

While it would seem to be a logical impossibility to turn the production of difference defined as "the breaking of routines" into a routine activity, and according to the above passage it

would result in its elimination, for Schumpeter (1928, p. 385), the routinisation of innovation is not only possible but also inevitable: "Progress becomes 'automatised,' increasingly impersonal and decreasingly a matter of leadership and individual initiative." This is also Langlois's (1998, p. 196) interpretation of Schumpeter's propositions: "In both his early (1934) and his later (1950) work, Schumpeter consistently espoused the view that 'progressive rationalization' in Weber's sense would make innovation a matter of routine."

If the making of a difference is itself turned into a routine (a repetition), difference is eliminated and all we are left with is another routine. This logic would render the obsolescence thesis untenable, as it would preclude large, bureaucratic organisations from creating a permanent monopoly over innovation by automating it. Schumpeter's obsolescence argument therefore appears to be based on a paradoxical proposition. Moreover, most of the characteristics cited by Schumpeter to distinguish individual entrepreneurial behaviour from non-entrepreneurial ones seem to be extra-rational, non-rational, or—in the case of non-hedonistic motivation—even irrational. It is not immediately obvious from Schumpeter's argument why—and how—collective rationality (as performed by a group of experts in a large corporation) should be able to replace these non-rational resources, especially through engaging in a highly routinised behaviour, which is antithetical to the very definition of Schumpeterian innovation.

This point could be countered by saying that Schumpeter's obsolescence thesis was not just about replacing the individual's limited rationality with the wisdom of the collective but also his or her extra- and non-rational resources with the organisational muscle of the corporation (which includes easier access to both finance and intellectual resources for marketing—the latter being particularly helpful for breaking customers' resistance to innovations). Baumol (1993) makes another argument in support of the routinisability of innovation. He finds evidence for the "routinization of the innovation process" taking place

in large organisations in the fact that “well over half the new patents in the U.S. emerge from such sources rather than the basements and garages that are the stuff of popular views of the invention process” (p. 206). However, it is questionable whether patents can be accepted as evidence for Schumpeterian innovation defined as 'a large-scale and disruptive change in a specific world.' From a Schumpeterian perspective, patents would remain mere inventions until entrepreneurs would actually 'get them done,' i.e. until they would construct enterprises and channels for creating and diffusing the innovations, and eventually selling them:

It is quite immaterial whether this is done by making use of a new invention or not; ... it is not the knowledge that matters, but the successful solution of the task *sui generis* of putting an untried method into practice - there may be, and often is, no scientific novelty involved at all, and even if it be involved, this does not make any difference to the nature of the process. (Schumpeter, 1928; p. 378)

Moreover, neither arguments explain why a large, complex and bureaucratic organisation would generally—and perpetually—be more apt at overcoming inertia resulting from the convenience of routines (that produce a stable flow of income), than a start-up that is single-mindedly focused on establishing an innovation and whose very survival depends on this specific innovation's success. Loasby's (1999, p. 147) critique of Schumpeter's proposition about the routinisability of innovation by large firms also supports this point: "many large organisations have found that they cannot continue to match the best that can be achieved by specialist businesses which focus their attention on one part of the total production process or product market."

3.3. Empirical (in)validation of the obsolescence thesis

Now we have arrived at our third question: has Schumpeter's obsolescence argument been proven or disproven by economic history since his time? As we had discussed earlier,

Langlois had found evidence that the diminishing importance of large corporations since the 1980s, as far as their contribution to innovation is concerned, appears to invalidate a significant element of Schumpeter's thesis. Given the philosophical and methodological inconsistencies in Schumpeter's argument that we had laid out in the previous sections, the utility and feasibility of subjecting it as a whole to empirical tests is questionable.

Nevertheless, there is an emerging consensus in the literature that Schumpeter had overestimated the ability of large firms to innovate continuously and underestimated the resilience of innovative start-ups, as far as the obsolescence argument is concerned (Audretsch and Keilbach, 2008; Loasby, 1999; Nelson and Winter, 2002). Essentially, his proposition about the effect of "trustified capitalism" on the emergence of start-ups (i.e. their permanent elimination) appears to be wrong. While large US corporations around the time of Schumpeter's death in 1950 may have seemed invincible, by the 1980s and 1990s a period of large-scale de-conglomeration, de-verticalisation and specialisation took place, accompanied by a proliferation of start-ups (Langlois, 2007a).

3.4. How to build on Schumpeter's theory of entrepreneurship?

The fourth question asks how we can build on our interpretation of Schumpeter's entrepreneurship theory and the obsolescence thesis, especially in light of our agreements and disagreements with Langlois's reading. As we have shown, the obsolescence thesis suffers from a number of problems. The presumed superiority of corporate entrepreneurship over entrepreneurship in start-ups is based on the apparent paradox of the routinisability of routine-breaking. It also lacks empirical evidence: history has not validated so far Schumpeter's thesis about corporate R&D departments permanently eliminating innovative start-ups. We have argued that Schumpeter's inconsistent application of his own methodological principles contributes to some of the ambiguities concerning the relationships between entrepreneurship, as an impersonal economic function, and its performance by

individual-led start-ups and large institutions.

For the reasons outlined in Section 3.1., we do not think Langlois's proposal to interpret both individual and corporate entrepreneurship in terms of Weberian charismatic authority is consistent with Schumpeter's core definition of entrepreneurial leadership. Our interpretation directs attention to an entirely different aspect of management. Instead of focusing on the charisma of start-up founders and corporate executives, our definition of Schumpeterian entrepreneurship as *a dual mediation between productive means and between multiple supply- and demand-side markets* points towards a research agenda that is concerned with how heterogeneous entities become acquired, assembled and stabilised as innovation-producing new enterprises, and what role relationships with various markets play in this emergence.

Even though we have developed our interpretation of Schumpeterian entrepreneurship as dual mediation in contrast to the Langloisian reading based on charismatic authority, there are some similarities between our concept of the entrepreneur, as a mediator between markets and heterogeneous resources, and the entrepreneur that emerges from Langlois's (2007b) broader work on the entrepreneurial theory of the firm. Both operate by way of persuasion. But there are also some significant differences in the type of persuasion they engage in. The main preoccupation of the Langloisian entrepreneur is the exercise of judgement about whether the "dynamic transaction costs" of teaching and persuading suppliers to produce one's products outweigh the cost of assembling and operating an enterprise to exploit the given entrepreneurial opportunity on one's own. In contrast, our Schumpeterian entrepreneur practices a very different kind of 'persuasion': one which involves 1) negotiating prices for and acquiring the means of production required for the entrepreneurial recombination; 2) 'convincing' the contracted heterogeneous resources to assemble into the shape of the new combination (the start-up firm) and produce its output; and 3) convincing customers to buy

the output.

The differences in the type of persuasion engender different theoretical orientations.

In Langlois's (2007a, p. 1114) world, "the impediments to market transaction are largely cognitive and informational;" consequently, the "transaction costs involved ... are effectively costs of teaching and persuasion..." Similarly, the disadvantage of large firms over start-ups is considered to be ultimately a cognitive one, as large firms are limited by their 'absorptive capacity' (Cohen and Levinthal, 1990) to mainly recognise innovation that fits their existing capabilities. This focus on cognition is indeed characteristic of the wider post-Schumpeterian evolutionary theories of the firm. Loasby (1999), for instance, puts forward a cognitive interpretation of Schumpeter's theory that envisions the entrepreneurial process as one proceeding from conjectures that get tested in the manner of scientific theories before becoming implemented in practice. Indeed, Loasby considers the focus of evolutionary economics on cognition one of its main contributions to orthodox economics. As post-Schumpeterian theory (Earl, 2003; Loasby, 1999; Potts, 2000) draws heavily on biology—especially neuroscience—for its evolutionary metaphors, perhaps it should not be surprising that cognition comes to the forefront as a central concern. A strong parallel is drawn between the emergence of *Homo sapiens*, thanks to having a superior brain to other creatures, and the Schumpeterian concept of innovation as the creation of new combinations, which then is linked to the survival of firms on account of their superior collective cognitive organisation:

The present comparative advantage of the human brain over the brains of other species may lie in its capacity for ratiocination; but considered simply as an instrument of cognition its absolute advantage is not in the formation of rational sequences but in making and using combinations. (Loasby, 1999, p. 39)

Our reading of Schumpeter's entrepreneur, as a mediator between markets and

heterogeneous resources suggests a more symmetrical treatment of the cognitive, social, material, and practical aspects of entrepreneurial activity. Entrepreneurial mediation for us involves not only the cognitive activities of judgement and calculation but also what Schumpeter famously called 'getting things done:' the practical aspects of dealing with the complex social devices that markets are, and the messy, constructive activities of 'persuading' human and nonhuman actors to associate and perform their respective roles in constituting a functional organisation that is at the same time a new combination, expected to effect substantial change in a relevant region of the world.

But there are also ways in which our definition of the mediating entrepreneur builds directly on the aforementioned work in evolutionary economics. Our entrepreneur, constantly involved in building and rebuilding associations between market participants and heterogeneous means of production is very much like the "creator of connections" that Potts (2000) and Earl (2003) have in mind. As Potts (2000) puts it, proponents of the evolutionary logic such as

...Earl, Lawson, and Langlois and Robertson, among others-are concordant with respect to a framework of knowledge as connections, and structure as connections, and dynamics as change in the connections. Ultimately it is an ontology of connections that underpins the theoretical substance of these heterodox advances. (p. 60)

Another point of contact between our interpretation of entrepreneurship and the above evolutionary approaches is the focus on multi-disciplinarity. Earl (2003, p. 12) argues that the "connectionist approach provides opportunities for building bridges between economics, marketing, strategic management, and the literature on innovation." Our concept of the entrepreneur as a mediator between various supply- and demand-side markets and heterogeneous resources in pursuit of constructing a new combination similarly demands a

multi- and cross-disciplinary approach for the study of entrepreneurship. Acquisition of productive means requires engaging with business-to-business markets, searching for and evaluating suppliers, negotiating prices and contractual terms, and managing the ongoing supplier relationship. Assembling the thus acquired heterogeneous resources into a new combination requires leadership and strategic, operations, and innovation management. Convincing customers to buy the output of the new combination calls for marketing and sales management, including the management (and sometimes even the construction) of the distribution channel as well. Entrepreneurship theory can benefit from the insights of these functional areas, considering the fundamental role they play in the entrepreneurial process of dual mediation.

4. Conclusion

While our reading challenges Langlois's interpretation of Schumpeterian entrepreneurship on the significance of charismatic authority, at the same time it also offers a definition of entrepreneurial leadership that is complementary with Langlois's efforts to develop an entrepreneurial theory of the firm in terms of decisions concerning transaction costs about what to produce in-house and what to purchase in the markets. Our interpretation of the obsolescence argument also supports the Langloisian effort to counter the prevalent "two Schumpeters" interpretation.

By highlighting the associative nature of entrepreneurial leadership in the creation of connections between heterogeneous resources on the one hand, and between multiple markets on the other, we also make a contribution to the wider evolutionary economics literature that builds on Schumpeter's work and defines entrepreneurship and innovation as an evolutionary process of creating new connections (Earl, 2003; Loasby, 1999; Potts, 2000). We argue that our interpretation of Schumpeterian entrepreneurship as dual mediation calls for a

symmetrical perspective on the creation of heterogeneous resource and market associations, in contrast to the emphasis on human cognition that is prevalent in heterodox economics and evolutionary approaches to entrepreneurship.

Our contributions have significance for research programmes in economics, entrepreneurship, innovation and organisation studies that may have built on a one-sided interpretation of Schumpeter's entrepreneurial concept as being either personal or impersonal. Considering the enormous influence of Schumpeterian ideas on policy, practice, and theory in the past several decades, as well as the gravitas of a subject matter that is intimately tied to debates about economic and political orders that have defined and divided the 20th century, it seems appropriate to call for a re-examination of the foundational concepts of Schumpeter's entrepreneurship theory.

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