

# THE ENTREPRENEUR AND CREATIVE ACTIVITY

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The modern economist may well criticize his intellectual forefathers, Smith, Ricardo, and the rest, for their failure to recognize the importance of human initiative in economic life. There shall be no bitterness in his criticism, however, for he must acknowledge how difficult it is to be objective and independent when this requires one to rise above the contemporary intellectual modes of the day. In effect, usually we think and act as products of our age. If Quesnay and Smith had ever been tempted to believe that the economic world could be understood only after a consideration of human initiative and creative activity of men, could we admit that their consciences would allow them to hold to this judgment? It is hardly likely. Rather, it seems safe to say that to the eighteenth century mind such a view would detract from the infinity of the Divine Lawgiver. Fortunately the modern economist is not restricted by this Newtonian and deistic preconception. Furthermore, he is no longer shackled by Benthamian utilitarianism – that all important set of principles of the Classical tradition. This need not be demonstrated except to say that it is difficult to find anyone willing to accept the popular assumption of a century ago that all economic activity is activated by the desire for monetary gain. More specifically we

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recognize that utilitarianism rests upon the principle that man continues to act rationally; but indeed, the fashions in psychology have been drifting away from all rationalism for the past fifty years. Our age is more sympathetic to the claim that innovations result from the operation of a network of automatic impulses and conduct. It seems only reasonable that we should be as cautious and critical of these contemporary explanations as we were of Quesnay, Bentham, and others in the past. Most assuredly, the danger of being misled by our contemporaries is far greater, for we are very apt to inhabit the same intellectual milieu. Even empirical research is suspect.

Empirical research does not consist in nor begin with a totally unprejudiced collection of evidence. The student of reality is forced, from the very outset, to select certain data, he considers relevant, and to leave aside other material which he believes to be a merely adventitious nature. This selection and the implied evaluation is determined by the general suppositions the student makes; and these are in almost all cases taken for granted to such a degree that they are never explicitly stated nor even subjected to a critical examination. (Allers 1951, p. 27).

Furthermore, the most general proposition that furnishes the background against which the things to be investigated are envisioned

...stems from the “intellectual climate” in which a man grows up. The views which underlie all his work have been inculcated by his teachers, the atmosphere which surrounded him during his formative years, by his personal studies, and by the ideas which were prevalent in the social and intellectual milieu wherein he moved. (Allers 1951, p. 28).

With these words of caution we proceed to an examination of the work of three very respected contemporary students of human initiative: the first, an English physicist, H. Stafford Hatfield; second, an American historian, N.S.B. Gras; and finally, an Austrian economist, Joseph A. Schumpeter. We seek to abstract from the writings of these men some characteristics and significant qualities of the agent of innovational economic activity. In this way we hope to augment our knowledge and deepen our understanding of the

entrepreneur as a strict cause of economic change, that is to say, deepen our understanding of the entrepreneurial efficiency itself.

Hatfield is a physicist, chemist, inventor, and at present general scientific handyman to the British government. In the thirties he wrote a treatise on the inventive genius of man. (Hatfield 1948). We discuss this work here for one reason only: Hatfield is representative of a popular view of the creative activity of man which we might well contrast with the personal humanism of Schumpeter.

First of all Hatfield recognizes a clear distinction between intelligence – by the use of which man adapts himself to what is found useful and pleasurable in the past – and the faculty for creative activity – which alone produces new methods and new experiences. There is no correlation between the two. More often than not, Hatfield tells us, the special faculty for creative activity appears to be possessed by persons whose general intelligence is not of a high order. On the other hand, those men equipped with

an intimate knowledge of the best practice in art, science, or technology, able to grasp the essentials of a problem, and envisage exactly the results of applying known and tried methods to its solution – in short, those minds upon whom the continued existence and stability of civilized life depend, are not usually inventive or creative. (Hatfield 1948, p. 14).

In the field of physics, the man searching intelligently is the scientist; the man acting creatively is the inventor. The scientist is endowed with a type of talent wholly distinct from the talent of the inventor. The former involves the ability to assimilate a wide or general grasp of a subject; the latter makes it possible for its possessor to leap ahead without this general knowledge. Of course this is not to deny creativity to the scientific genius. It is perhaps accurate to say that while the scientist does not create the facts that he discovers, yet quite often he creates the means of discovering. Unlike the scientist, however, the

inventor is a specialist. He is a specialist in the sense that until his invention becomes a reality, the problem confronting him is an *idée fixe*. The concentrated and persistent ferocity which characterizes his efforts often appears inhuman and even insane to ordinary mortals. (Hatfield 1948, pp. 22, 39-40).

If creative ability is not related to intelligence, how do we begin to explain it? Hatfield admits an explanation is not immediately forthcoming. The most that we can say is that it is an innate talent – much like the talent for music and painting. We notice that there is no acquired skill involved in the Eskimo's ability to take watches apart and put them together again quite successfully without any previous training; inventive genius is much like this mechanical skill of the Eskimos. Natural intelligence is also innate, but the ability to perform intelligent acts requires training, development, conscious thought, and understanding. These are not necessary to the innovation of new processes and the like. In fact, the creative act is “no more conscious than is the creation of new species or new mutations.” (Hatfield 1948, p. 23). Hatfield will accept that the “new” set is mutative in the strict biological sense of the word. There is an unexplainable (so far) but certainly unconscious elan in animals comparable to the *idée fixe* or inventive drive of some men. Organic and creative development proceeds as a result of this internal elan and is thus offensive not defensive. Nature – or we should say the natural elan – produces a sudden spontaneous variation from type. The result may be very beneficial to the welfare of future generations; if so it remains and prospers. On the other hand, the result may be such that the new species (product or process) is completely unable to survive in its habitat and disappears almost as quickly as it came into being. Inventions, discoveries, innovations of all types are kinds of mutations. Some men are born with ability to form new things; they

possess this unconscious inventive drive or elan. The accomplishments of such men will be accepted or rejected according to whether they are found to be useful or not.

We are enlightened by Hatfield's work. We come to realize that the qualities so necessary for creative activity are in some way different from those needed for intellectual pursuits. The inventor and the scientist are different kinds of men; as are the artist and the philosopher, the entrepreneur, and the economist. We are enlightened in another respect. The performance of the innovator is ideally spontaneous and (let us go at least this far with Hatfield) analogous to the mutative activity of animals. On the other hand, Hatfield offers no acceptable explanation of the nature of the creative elan. Like organic mutations, he tells us, human innovations are purely chance products. In the case of an invention, new patterns are produced in the unconscious. As the useful organic mutations are preserved by natural selection, so too are those innovations that seem valuable to the inventor preserved by him. Hatfield admits that this view appears improbable, yet he says, it cannot be disproved. He accepts it as his own because the only other choice is to admit the validity of some "vitalistic school of thought." This would be unfortunate because it would require a "return to some type of mysticism." We would be forced to "look upon creativeness as resulting from a super-charge or super-efficiency of this vital force. But such an admission is a sad thing for a scientific mind." (Hatfield 1948, p, 27). If we admit that Smith and Quesnay were to some extent at least the product of an age, then it seems admissible to accuse Hatfield of reflecting the intellectual fashions and prejudices of another age.

Even so, Hatfield appreciates the importance to the evolution of human existence of man's initiative and creative accomplishments. This is even more true of the next student of human enterprise that we wish to mention here, N.S.B. Gras. Hatfield is concerned with the

innovator in general. Gras treats the “business man.” Gras thus limits his consideration to economic activities. In one sense, however, his treatment is broader. To Gras, the businessman acting as innovator is performing but one of his essential functions. Of far greater importance is the more general concept of the businessman as an individual and a leader.

Individual leadership, Gras finds, is the source of all “progress in business and general culture.” (Gras 1947b, p. ix). This leadership is the generating, creative force with which all human progress is directly or indirectly associated. This assumption is tantamount to accepting an economic philosophy of history. Nevertheless, it differs from the Marxian economic philosophy of history in a very substantial way. Unlike the Marxian economic interpretation of history, this business interpretation is not deterministic. The difference is found in the efficient factor. In the former the agent for historical change is found to be the pressure of a specific mode of production on the class of have-nots and the consequent violence between classes. In the latter, the agent is the leadership of individual businessmen acting creatively and free. This leadership provides the yeast without which the bread of progress does not rise.

What we are getting at is that individualism in its higher reaches began in business; that business laid the foundations for the initiating and the creative power of man and the flowering of the human genius; and that our best art, philosophy, science, and engineering are both direct and indirect outgrowths of business or more discriminating, of private business capitalism. (Gras 1947a, p. 90).

The students who work with Gras accept his emphasis on individual leadership. Henrietta M. Larson considers the recognition of business leadership as a necessary academic reform among economic historians, Classical economists, Marxians, even Historical Economists who have either generally overlooked man as a factor of economic

life or who have seen him only as a passive element, being acted upon rather than acting. This does not mean, she says, that we must interpret history in terms of great leaders. It does mean that we must acknowledge that the activities of the business administrator entail more than conformity to immutable economic laws. (Larson 1942a, p. 39). Ralph M. Hower has a similar view. Of course, he says, we cannot deny the influence of such factors as geography, natural resources, and the like; nor can we minimize their importance. Individual enterprise cannot divorce itself from its environment. However, these factors operate only through the thought and action of the business administrator. To a considerable extent this “new man” shapes our economic environment. (Hower 1942, p 52).

The great importance of the Grasian group is its recognition of the significance of personal activity in theoretical and methodological considerations. The only other great intellectual force to bring human activity into the center of all analyses of economic life is the Schumpeterian influence. There is a paradox involved here. While the philosophical principles underlying the Grasian approach to history comprise anything but a personalism, yet no acknowledgment of personal humanism could motivate a student to appreciate truly human activity to a fuller extent. On the other hand, Schumpeter, by philosophical preference a true personalist, seems to have made a conscious effort to conceal or deemphasize the influence of personal activity in economic life. Says Schumpeter,

.....mankind is not free to choose. This is not only because the mass of people are not in a position to compare alternatives rationally and always accept what they are being told. There is a much deeper reason for it. Things economic and social move by their own momentum and the ensuing situations compel individuals and groups to behave in certain ways whatever they may wish to do – not indeed by destroying their freedom of choice but by shaping the choosing mentalities and by narrowing the list of possibilities from which to choose.(Schumpeter 1947, pp. 129-130).

He is not adverse to making similar remarks in many of his writings and while they seem out of place alongside of Schumpeter's constant insistence on the importance of the innovator, yet he is cautiously leading us away from an extreme position; away from a Carlylean view of history. The paradox is resolved somewhat in that Schumpeter is an economist and consequently is most impressed with the function of entrepreneurship rather than with the entrepreneur himself; ".....when we speak of the entrepreneur we do not mean so much a physical person as we do a function." (Schumpeter 1949b, p. 80). Gras on the other hand is a business historian and must be concerned with the activities of specific entrepreneurs. Of course, an entrepreneur or businessman "cannot be studied without seeing him as a person and as a member of society." (Larson 1948, p. 733).

It is exactly the stress on function that Gras and his disciples criticize. They claim that economic theory concerns itself with that "shadowy figure of entrepreneur." This figure is seen as function rather than as a man,

that is, as the "manager," the risk-bearer, the leader in economic development and change, and so on, rather than as a man or group organizing, planning, and directing the individual business units which make up the total business effort of a society. (Larson 1948, p. 733).

Their criticism continues in this vein. Economists have admitted some human factor into their analytic considerations and termed it the entrepreneur, but this factor has become impersonalized over the ages. Their criticism is somewhat justified but exaggerated. It is justified in reference to the failure of economists to recognize the importance of the creative activity of the individual within the economy. Gras is certainly correct when he implies that the history of economic thought shows that there have been fashions in economic theory almost to the extent that each age or region has had its own impersonal factor to emphasize above all other factors. (Gras 1947b, p. 189). To give examples: the early Mercantilists



centered their entire consideration around foreign trade; Petty placed extreme emphasis on production; Smith and Marx overstressed labor as the source of value; Quesnay, land. He notices finally that no theorist placed the stress where it really belongs, viz. upon the individual leader in the business world. Nevertheless, his criticism is exaggerated in that he tends to devalue economic theory itself. It is helpful to realize that economic theory by its nature must be concerned with the human factor in respect to its economic function. In effect, we arrive here at that all important distinction between the theory of economic development, which has as its root the function of entrepreneurship, and business history – its complement – which focuses attention on the actual activities of specific entrepreneurs. The former is pure theory; the latter gives historical examples of the theory applied.

The concept of the businessman or business administrator is described in many of the tracts on methodology by Gras, Larson, and other members of the Business Historical Society to guide the incipient business historian in his investigations. By way of definition, Gras tells the student to look for the businessman in the sense of the capitalist who specializes in producing and gets his living by exchanging his goods and services for someone else's goods and services. (Gras 1947a, p. 89). This concept is not satisfactory; neither the fact that the businessman is acting in the role of the capitalist, nor that he is involved in exchange transactions, seems significant enough for us to recognize the businessman as the key human factor in the economic process. On the other hand, we are immediately impressed with Larson's list of functions of a typical business administrator; first of all, the administrator formulates policies, that is he decides on objectives for a business enterprise and makes general plans for attaining them; secondly, he controls the business, that is he sees that the policies adopted are followed; and thirdly, he manages,

that is he directs the operation of the business unit. (Larson 1942b, p. 71). It is evident that the concept of administrator is broader than the Schumpeterian entrepreneur. Unlike Schumpeter, the Business History School is not satisfied that the businessman be reduced to an adventurer or heroic innovator. Of course, the concept administrator reserves a place for the activity of innovation in its function of planner and policymaker. Yet of equal importance, say Gras and Larson, are the activities of control and management. If Schumpeter neglects these, the reason is he is concerned primarily with economic development. It is apparent that the control and management of a going concern does not affect the development of the economy. Nevertheless, we must certainly admit that any consideration of the human factor in economic affairs cannot disregard them. The very striking example that follows indicates the importance of management within the economy.

There was a high degree of international integration and order in monetary matters in the nineteenth century. It was generally believed until recently that this had been brought about because the financial and monetary institutions in London at this time conformed to immutable economic laws. In other words, man's economic activities had been rationally directed to conform to a natural mechanism. Most investigators now agree that this explanation is unscientific as well as degrading to man's talents for social construction. Economic machinery exists to serve man; it conforms to man's needs and desires and not vice versa. The explanation for the harmony of international monetary and trade relations in the nineteenth century is to be found in the skillful management and control of these affairs by the men on Lombard Street. The management abilities of these men made the following possible. (Brown 1940, p. xvii; Morgan-Webb 1934, p.72). First, facilities were made readily available in London for the trading of a greater variety of

commodities than the world has ever known. Associated with these commodity markets were the renowned commodity experts whose grading was accepted everywhere. Second, an extensive warehouse system was established and expertly managed to store the unloaded ship cargo. A band of speculators were prepared to buy almost any commodity from these warehouses and on very short notice. “What came to London became liquid and everything came to London.” Third, furthermore, there was a wide and dependable security market, the London stock exchange. Fourth, even more important than the markets and facilities mentioned above was the Bank of England because it was those men associated with this institution who accomplished international currency stability. The bankers of England found that the value of gold could be kept constant at its sterling value between the gold points by management – by the manipulation of the Bank Rate.

The case above presents one of the greatest examples of the importance of management ever to be discovered by the economic historian. Add to this the many cases of successful business management by individual administrators mentioned in the writings of Gras and the members of the Business Historical Society and we are left with an indelible respect for the role of management in economic affairs. Still, we have not in any way weakened the Schumpeterian hypothesis that it is innovation first and always – and not management or control – that ignites the spark to set economic development into motion. Consequently, we return again to the economic innovator to benefit by Schumpeter’s full treatment of this agent and also to examine him in the light of a personalistic philosophy.

The first characteristic of an entrepreneur that comes to our attention is the fact that he is ideally a “new man.” Old established men are not likely to take upon themselves the uncertainties and difficulties of a new enterprise if this entails struggling against

established methods and customs. The whole of business and industrial history bears out the validity of this (Schumpeter's) observation. We mention just one example. From the writings of Professor Maclaurin on the development of the electrical industry we find that while Western Union became the leading concern in the electrical communication industry in the nineteenth century, its leaders almost completely discounted the significance of the introduction of the telephone. Notwithstanding the fact that Western Union had the financial resources and technological skill that would have enabled its leaders to exploit this related industry more rapidly than any unestablished group, it continued to confine all of its energies to the telegraph. It was only when the American Telephone and Telegraph Company grew strong that the real importance of this new method of communication was admitted. Furthermore, by 1900, Western Union, Postal Union, and the American Telephone and Telegraph Company were all established and flourishing enterprises in electrical communications; General Electric, Western Electric, and Westinghouse were the important established concerns in the electrical equipment industry. Any one or any combination of these enterprises was in a strategic position to exploit the next new method of electrical communication – the wireless – that was then entering its formative stage. There was a sufficient degree of monopoly in the established enterprises, says Maclaurin, to support research and new projects. Yet it seems correct to say that these enterprises did not visualize the potential importance of radio and so new men and new enterprises were left to develop it. (Maclaurin 1950, pp. 94-95).

Besides being a new man in the sense of a man unestablished in business, the entrepreneur is also a new man financially. It is a mistake to think of him as the risk-taker because risk always falls on the owner of the means of production or of the money capital

which was paid for them. (Schumpeter 1949a, p. 75, footnote). The entrepreneur per se does not possess this property, the capitalist does. Of course, there is a risk taken by the entrepreneur, but it is never financial. If the enterprise fails, the entrepreneur may lose his job: he may even lose his reputation and standing in the community. Entrepreneurial risk then is commonplace and not unlike the risk that a surgeon bears who decides to operate – or an engineer who accepts the position of bridge-builder. In no sense, however, can the entrepreneur described here be identified with the risk-bearer found in the writings of Dobb and Knight.

The entrepreneur pays for the use of the capitalist's property and this payment is called interest. The entrepreneur, then is the interest payer; the capitalist is the interest receiver. Ideally the charge would conform to the risk involved. Always, however, the capitalist by offering his property to be used in an enterprise accepts the possibility of losing it if the undertaking is unsuccessful. We comprehend this distinction by referring once again to Schumpeter's pure model. The entrepreneur therein begins his economic activity by first becoming a debtor; he is the typical debtor in the economy. He needs first of all credit, only then can he launch his innovation. The capitalist (or in the case of pure credit creation the banker) is the typical creditor. Granting a condition of full employment, the entrepreneur is a debtor in a deeper sense, he is the debtor to society because by borrowing a specific quantity of purchasing power he is able to commandeer goods and services for his own usage from their previous employment. Furthermore, this is done before he contributes any goods or services of his own to society. (Schumpeter 1949a, p. 102). In a socialist economy, the entrepreneur continues to be a debtor to society if not a debtor financially. In the place of credit, the official who judges the worth of

entrepreneurial undertakings and who thus corresponds to the banker in the capitalist system hands out a requisition slip instead of credit. With this paper the innovator is allowed to draw a specified portion of goods from the social stream.

The researches of Fritz Redlich in the field of business history have led him to support Schumpeter's emphasis on the new men in the economy. (Redlich 1949a, pp. 223-237). It is the activities of these men that influence economic development and elevate them to subjects of dynamic theory. According to Redlich, the entrepreneurs are not the only new men in the economy, rather there are creative capitalists, creative entrepreneurs, and creative managers. It is helpful to dwell a moment on Redlich's concept of creative capitalist. This new man invests funds in a new and untried type of venture and in so doing, says Redlich, makes economic progress possible. Robert Morris, Jeremiah Wadsworth, and John Baker Church, investors in the first commercial bank in America – the Bank of North America – are examples of creative capitalists. (Redlich 1949a, pp. 223-237). Creative capitalists are extremely important to the history of enterprise. However, financial risk may be diffused and so economic progress, depending as it does on the financing of innovations, is possible without any extraordinary personal activity on the part of individuals. Creative capitalists may be eliminated and financial risk rationalized. This is accomplished by substituting a type of risk-insurance for personal risk. It is worth noting here that the function of entrepreneurship cannot be rationalized and depersonalized in a similar manner.

This is not to imply that collective risk is as yet institutionalized in any capitalistic economy. It is theoretically possible, but actually there are but few existing examples. Perhaps the most enlightening case of an actual institution established for the purpose of

collectivizing the financial risk that accompanies new enterprises is the postwar American Research and Development Corporation. The purpose of this Boston business organization is to encourage new and untried ideas and products by supplying enterprise with technical advice and venture capital. It finds new projects, analyzes them, sets up and assists in the operation of those chosen for financial help, and supplies capital for operation or development. The funds for the purchase of stock in these new enterprises are obtained from educational institutions, investment trusts, insurance companies and industrial corporations as well as from individuals. The stockholders of American are requested to cooperate by bringing worthwhile new projects to the attention of the corporation, to assist in appraising them, and to take an active interest in any new investment. As a result of the operation of this corporation, more than five million dollars was channeled into venture capital before the enterprise was four years old (August 1950). (Fetridge 1950, p. 3).

It is apparent that economic development is possible without the capitalist performing his function singly and as an individual. The same cannot be said of the entrepreneur. While we notice in our time that some progress is being made as the result of groups of trained specialists who turn out what is required of them and often go beyond it, yet entrepreneurial activity in general is closely analogous to artistic activity and thus like a work of art an innovation is seldom if ever the accomplishment of more than one master. Furthermore, it is impossible to set up workshops for the purpose of producing genuine creative activity of any importance whether the aim involves art, invention, or economic innovation. Concerning inventions, Hatfield cites Grosvenor's statistics compiled around 1929 which show that only twelve out of seventy-two outstanding inventions since 1889 have been produced by "corporation" research. We can expect the proportion of economic

innovations arising from similar rationalized methods to be about the same. Hatfield explains that the conditions under which these hired “creators” must work are not conducive to production; the steady round of 9 to 6, with lunch from 1 to 2:30 simply does not produce creative work. The great new man drives himself savagely as did Goodyear who “under the compulsion of his vision of vulcanized rubber, .....endured infinite hardship; such extremes as others have endured for their religious or political convictions.” (Hatfield 1948, p. 46). In brief, “creative work is over work. ....It needs sweating and worrying in the small hours of the night, it is monomania.” (Hatfield 1948, p. 49).

While we admit with Hatfield that a creative act comprises both vision and persistence, yet there is still more. Creative achievement reflects the highest qualities of human nature and yet the world invariably rejects it with strong and unreasonable opposition. Certainly we must keep in mind this great paradox when we evaluate recent attempts to rationalize and collectivize creative activity. The environment resists new things. The more effective the innovation, the stronger is society’s opposition. Because there are no innovations to rival the railroads in importance during the second half of the twentieth century, this industry affords a good example of the omnipresent social resistance; Bogart mentions various forms of opposition:

....doctors warned of danger of concussion of the brain from traveling at a speed of 15 to 20 miles an hour; farmers were told that the sparks from the engines would set their hay and buildings on fire; and that the noise would prevent the cows from giving milk; (and) officials refused to permit meetings to promote railroads to be held in public buildings. (Bogart and Kemmerer 1948, p. 287).

Concerning the latter there is a stock-in-trade quotation that might be found in almost any textbook on American economic history. Yet there is perhaps no more perfect specimen to exemplify social opposition to innovation. The quotation is from a report



prepared by the school board of a small Ohio community refusing permission to a railroad promoting company to use the schoolhouse. It reads in part:

**You are welcome to use the schoolhouse to debate all proper questions in, but such things as railroads and telegraphs are impossibilities and rank infidelity. There is nothing in the Word of God about them. If God has designed that His intelligent creatures should travel at the frightful speed of fifteen mile an hour, by steam, He would have clearly foretold it through His holy prophets. It is a device of Satan to lead immortal souls down to Hell. (Walker 1949, p. 91).**

This is the most popular type of opposition. God does not mean for man to travel to the moon, to travel faster than the speed of sound, to fly, to venture on the seas past sight of the shoreline. The least of us becomes a professional theologian. It is refreshing to observe a remark of Charles Carroll of Carrollton who at the age of ninety-two laid the cornerstone of the Baltimore and Ohio Railroad. “I consider this among the most important acts of my life, second only to my signing the Declaration of Independence, if second to that.” (Reizenstein 1897, p. 20). The words of this great man of vision offer concrete evidence that a “new man” in society need not be a young man.

The difficulties involved in innovating cannot be overstressed. In mentioning a few examples of opposition to innovations in the railroad industry we have simply introduced the important problem of resistance to development. Social resistance alone involves: the impediments arising from legal and political institutions, the reactionary pseudo-theological spirit mentioned above; the counteroffensive of those groups who are threatened by the innovations; the arduous task that confronts the innovator of having his plan financed; and finally the difficulty of creating the demand that is to win over consumers. (Schumpeter 1949a, p. 86).

**And yet the opposition of the environment is not the only opposition that the innovator must meet. There is also the difficulty of the lack of data that accompanies all new things:**

**...many things must remain uncertain, still others are only ascertainable within wide limits, some can perhaps only be “guessed.” In particular this is true of those data which the individual strives to alter and of those which he wants to create. (Schumpeter 1949a, p. 85).**

**As an example, Schumpeter asks us to visualize**

**the situation of a man who would, at the present time, consider the possibility of setting up a new plant for the production of cheap aeroplanes which would pay only if all people who now drive motorcars could be induced to fly. The major elements in such an undertaking simply cannot be known. The situation is, proportions guarded, not different in the case of a new perfume. (Schumpeter 1939, p. 100).**

**Another type of resistance to new things rests within the potential innovator himself. If he shall be successful he must first convince himself that the great difficulties involved are worth the personal effort. It is always the easier way to remain in some established pursuit. This does not contradict the “monomania” of Hatfield; great persistence is necessary if the innovator is to overcome resistance, but this comes only after voluntary acceptance. Man decides to act freely in the highest sense of the word and with the full realization that in doing so he is heaping upon himself unnecessary – or rather propagated – obstacles. As Berdyaev might have put it, the decision to struggle for the success of the new undertaking is the demand, not of nature, nor of reason, nor of society, as is often supposed, but of spirit. Furthermore, the idea is a simple application of Berdyaev’s great paradox that to act freely is difficult; never to raise above the set patterns and established methods of the environment – to remain in slavery – is easier. Genuine freedom presupposes hindrances and conflict. This thought is expressed in the classical language of Schumpeter in this manner: “this mental freedom presupposes a great surplus force over**

the everyday demand and is something peculiar and by nature rare.” (Schumpeter 1949a, p. 86).

Another characteristic of the new man may be mentioned. In no sense can entrepreneurs be said to form a social class. In this regard they are once again like their fellow “creators” in society, the artists and inventors. To acquire a class status demands a certain conventionality; but the entrepreneur is an upstart whose ideas are generally laughed at – even ridiculed in the beginning. “The truly creative artist never has any public because just as he is ahead of his last work, he is way ahead of his next public.” (Gilson 1950, p. 50). Let us extend this remark of Gilson to say that creative artists – and include here inventors and entrepreneurs – have ideas too new to allow them to be accepted into a class. The class not unlike the “public” is by its nature conservative; its members live by conventions and reserve no place for potential revolutionists. The only way possible to consider entrepreneurs as members of a class is to assume that society comprises two classes, the people who constitute the masses and those who do not. Then we acknowledge that the innovators belong to the latter class. Even here, however, we have in mind Berdyaev’s suggestion that the masses be defined not so much by social as by psychological traits. One belongs to the masses if he lacks an expressive personality. “...An absence of personal originality, a disposition to swim with the current of the quantitative force of any given moment, an extraordinary susceptibility to mental contagion, imitateness, repeatability,” these characterize a member of the masses. (Berdyaev 1944, p. 121). Such individuals are drawn from the bourgeoisie, the mobility, the industrial workers ... in short from every social class. The innovators quite evidently do not belong to the masses.

**There are other reasons why entrepreneurs do not fit into a specific social class.**

**First of all they do not remain entrepreneurs long enough.**

**...it is just as rare for anyone always to remain an entrepreneur throughout the decades of his active life as it is for a businessman never to have a moment in which he is an entrepreneur, to however modest a degree. (Schumpeter 1949a, p. 78).**

**Secondly, the new men do not form a class because the necessary qualities cannot be inherited. A business can be inherited by the merchant, a title by the noble, but the entrepreneur cannot pass on to his son the ability to formulate new production functions. The social stratum of innovators may be described as a hotel which may always be full but the people in it are forever changing. (Cf. Schumpeter 1949a, p. 156).**

**The activities of the new man necessitate stepping outside the boundary of routine. This requires initiative and for this reason we offer the title of economic leader to the entrepreneur. He assumes the duties of leadership, first, by “leading” the means of production into new channels. In a capitalistic economy he receives his commission for this undertaking by the banker who approves the new plan – the new production function. Second, he leads in the same sense that he creates demand, he does not undertake to fill a need or want but rather produces new wants and needs. Like his cousin the artist, the economic leader lives by making society want what he himself thinks they should want. Third, he leads by drawing other producers in his industry after him; he sets up the new process, the new firm is successful, and the host soon follows.**

**A selected list of qualities needed for such leadership is suggested by Maclaurin. They include: “visionary boldness, ‘narrowness,’ aggressiveness, persistence, business judgment, salesmanship, the capacity to pick able associates, the delegation of authority and the ability to inspire loyalty in a working organization.” (Maclaurin 1950, p. 111).**

**By such leadership, the economy develops. A continuous stream of new products and new wants flood the progressive society. However, at the same time the leader destroys; the old gives way to the new and so we find that destruction accompanies the innovator's activity. Extending this thought to the whole of human existence, Toynbee terms it the "nemesis of creativity;" in its economic aspects, Redlich gives it the title of the daimonic act of the entrepreneur. (Redlich 1949b, p. 31). We add this thought to our growing number of aids to methodology. We might methodically search out the destruction that lies strewn along the path of every innovational act. Keeping in mind this daimonic activity of the innovator we are not apt to neglect, for example, that the introduction of the power loom destroyed the hand-weavers' craft; that the introduction of the gasoline tractor, the mechanical picker, the innovations in ginning made cotton-growing most profitable on very extensive plantations and severely depressed the entire Mississippi Valley area; that the discovery of America by Columbus shifted the commercial center of the world from the Mediterranean to the Atlantic thus destroying the long maritime supremacy of Venice and Milan.**

**Because the economic innovator has been erroneously identified with the inventor, it becomes necessary to distinguish between them. It is helpful to preface our remarks in this regard by examining briefly Maclaurin's five questions that act as a guide in analyzing an industry:**

- (a) Are major advances occurring in the sciences underlying the industry?**
- (b) Is engineering art in close touch with and contributing to these advances?**
- (c) Is the economic organization of the industry conducive to innovation?**
- (d) Is capital freely available for radical new developments?**
- (e) Do the entrepreneurs possess the requisite skills for successful innovation? (Maclaurin 1950), p. 91).**

The key factor associated with each of the above questions, except one (c), is a human agent. They are, respectively: (a) the inventor; (b) the engineer; (d) the capitalist and banker; and (e) the entrepreneur. This logical ordering gives an indication of the steps leading to an economic change. Only (d) and (e) directly concern the economist but most economic innovations are not likely to materialize without the preliminary stages. We cannot overstress the significance of decisions in this process – the decisions of all the agents, the engineer, banker, and capitalist, but most of all the plans and decisions of the two innovators – the inventor and the entrepreneur.

Maclaurin's arrangement shows clearly the logical priority of the inventor relative to the economic innovator. Inventions are economically irrelevant as long as they are not commercially exploited. Available examples are too numerous even to list, but by way of illustration we may think of the automobile existing as early as 1804 when Oliver Evans' "steam carriage" – a little steamboat on wheels – was driven through the streets of Philadelphia. Because Evans carried the idea into practice and suffered a financial loss, we witness perhaps the first economic innovation in the automobile industry. However, the invention of the automobile can possibly be traced even as far back as the Renaissance – arising from da Vinci's discovery of the utilization of steam for propulsion.

Schumpeter's distinction between the inventor and the entrepreneur is one of personal aptitudes – the aptitude of the inventor is primarily intellectual, he "creates" and finds; that of the entrepreneur is primarily volitional, he fulfills his function more by will, "by 'authority,' by 'personal weight'." (Schumpeter 1949a, p. 88; Schumpeter 1939, p. 85). New ideas are always abundant if the entrepreneur is there to exploit them. In stressing the difference between the inventor and the entrepreneur and thus eliminating a common

error, Schumpeter gives valuable service. Yet his distinction is somewhat unsatisfactory. We are not justified in reducing the difference to one of the presence or absence of a creative aptitude. If the entrepreneurial act consisted exclusively of making rapid use of new technological possibilities to reform or revolutionize the pattern of production, then we might be justified. But clearly this does not fully describe the activity of the economic innovator. Each economic innovation begins with a plan or idea. Often this happens to be the inventor's blueprint but this is not always the case. In fact, among such important innovations as the automobile, cotton manufacturing, and the railroads, the significant element of the new production functions was the vision of the entrepreneur, viz., a cheap four-cylinder car for the masses, cheap cotton goods for the whole of the English nation, and new methods to finance and consolidate the roads respectively. The entrepreneurs involved were doubtless originators in the truest sense of the word. Consequently, the only distinction allowed between an invention and economic innovation involves the effect on the economy. The invention, qua invention, in no way disturbs the economic variables; the innovation on the other hand necessarily changes social production, consumption, investment, income, money in circulation, and the whole host of economic values.

Maclaurin's steps leading to an economic change underscore the importance of the human agent – but so too do all of the considerations in this paper. All that has been said above leads us to several concluding remarks concerning man's role in the economy and in society in general. All three writers, Hatfield, Gras, and Schumpeter, whose work we have considered in some detail agree that men by their actions build and destroy. They do so not by the passive activity of choosing between commodities on the market and thus stimulating production in one direction and discouraging it in another – not by the simple

use of the free-will; this was the key assumption of Classical economics and the consequent reason why the Classicists and Neo-Classicists were unable to formulate a genuine dynamic theory of economic. Change involves more than simply free-will; it involves what Berdyaev has termed “freedom of the spirit, or the creative spiritual energy.” (Berdyaev 1944, p. 48). The term creative means simply that man by his active participation changes things around in society. The term spiritual needs at least one word of explanation. It is used here in Berdyaev’s sense that changes must be made for the sake of man, for the sake of each personality who, being a man, reflects his Divine origin. In other words, man is important – or rather each individual man is – not society, not the state. Man plays an active part in making history. This activity should be directed toward the good of the person. The first is denied by the Physiocrats, the Marxists, and most schools of thought down to our time; the second is denied by the whole prevailing intellectual fashion that would direct our attention to the attainment of collective security. There is no truer remark than that of David McCord Wright who claims that the creative innovators of today are strenuously at work to form a society wherein their creative activity will be outlawed:

.....we find the paradox, so common today, by which the genuine inquirer – the very type of man who would be most unhappy in a mature socialist state, with its static pattern and rigid orthodoxy – is the man who now finds most satisfaction in creating socialism. (Wright 1948, p. 67).

### Conclusion

It is now possible to synthesize the more prominent characteristics of the entrepreneur as efficient cause of endogenous economic change. First of all, the entrepreneur is observed to act with a visionary boldness that is both spontaneous and persistent. This is true to such an extent that his operation appears analogous to biological mutation. The second significant quality is his personalism. This should be understood to



**mean (a) that he stands alone in his struggle against both private and public opposition: he is an unestablished or “new man” in his community. Secondly, he is an individual in the sense that he is the member of no hierarchical class: class status demands a certain conservatism and respect for tradition that he, qua innovator, cannot be expected to give. Thirdly, the entrepreneur is an originator and leader: he envisions changes within the economic community and realizes these changes by his active participation and leadership. This is accomplished (a) by “leading” the means of production into new channels, that is to say by establishing new production functions. This is done also (b) by demand creation – breaking the resistance of the consuming public against his new enterprise. It is done, finally (c), by drawing a host of followers to imitate and compete soon after the first burgeoning of success.**

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