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# HUMAN NATURE AND ECONOMIC INSTITUTIONS: INSTINCT PSYCHOLOGY, BEHAVIORISM, AND THE DEVELOPMENT OF AMERICAN INSTITUTIONALISM

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## I. INTRODUCTION

Recent articles have explored from different perspectives the psychological foundations of American institutionalism from its beginning to the interwar years (Hodgson 1999; Lewin 1996; Rutherford 2000a, 2000b; Asso and Fiorito 2003). Other authors had previously dwelled upon the same topic in their writings on the origins and development of the social sciences in the United States (Curti 1980; Degler 1991; Ross 1991). All have a common starting point: the emergence during the second half of the nineteenth century of instinct-based theories of human agency. Although various thinkers had already acknowledged the role of impulses and proclivities, it was not until Darwin's introduction of biological explanations into behavioral analysis that instincts entered the rhetoric of the social sciences in a systematic way (Hodgson 1999; Degler 1991). William James, William McDougall, and C. Lloyd Morgan gave instinct theory its greatest refinement, soon stimulating its adoption by those economists who were looking for a viable alternative to hedonism. At the beginning of the century, early institutionalists like Thorstein Veblen, Robert F. Hoxie, Wesley C. Mitchell, and Carleton Parker employed instinct theory in their analysis of economic behavior. Their attention was drawn by the multiple layers of interaction between instinctive motivation and intentional economic behavior. Debates on the role of instincts in economics were

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not confined to the different souls of American Institutionalism, and many more "orthodox" figures, like Irving Fisher or Frank Taussig, actively participated.

The success of instinct theory, however, was short-lived. As far as psychology is concerned, its decline became manifest as early as 1919 when Knight Dunlap attacked McDougall's theory because its reliance on the notion of subjective purposiveness inevitably implied the recourse to unobservable phenomena (Dunlap 1919). Viewed from the emerging positivistic standpoint that scientific concepts and analysis must deal only with what is objectively observable, instinct theory appeared to be unscientific and "metaphysical." Other critics also refused the idea of inborn behavior patterns, and supported the view that all but the simplest reflexes are molded both by experience and by the environment (Degler 1991). Applications of instinct theory to economics and economic sociology were also part of this reaction: the early 1920s, in fact, were likewise characterized by a harsh anti-instinct campaign based on similar arguments.

At the same time that instinct theory was losing its appeal, many institutionalists began to look at the newly launched psychological doctrine of behaviorism. With its emphasis on demarcating science (observed behavior) from metaphysics (mental states) and on the empirical testing of behavioral laws, the new approach seemed to provide a more powerful analytical and rhetorical weapon against the perceived narrowness of traditional economic theory. Biased towards the practical applicability of scientific knowledge to the prediction and social control of human conduct, behaviorism was viewed as a promising philosophy for those who searched for suitable models of inquiry and intervention for the postwar world.

In this connection, Malcolm Rutherford, together with other writers, has considered the shift from instinct psychology to behaviorism as one of the main factors that contributed in the late 1930s and early 1940s to the decline of institutionalism as a vital force in American economics. While acceptable to some of the leading figures of the quantitative wing of the movement—such as Mitchell or Copeland—application of behavioristic psychology to economics turned out to be exceedingly restrictive, since it took in no account issues of cognition, motivation, and creativity on which to build a new theory of human agency. Rutherford concludes that:

> [a]lthough institutionalist attacks on hedonism had contributed to the purging of orthodox theory of explicit psychological language (although not the assumption of rationality), institutionalism itself, with its claim on the need to base economics on "modern psychology" found itself without a broadly accepted foundation on which to build a treatment of human social behavior (Rutherford 2000b, p. 298; Hodgson 1999; Lewin 1996).

The objective of this paper is to look at the rise and decline of instinct theory and the debate over behaviorism within institutionalism. However, these debates, while mainly centered within institutionalism, spilled over to other authors belonging to different traditions. Therefore we will frequently adopt a dual perspective trying to demonstrate that institutionalist and "orthodox" discourses on the psychological foundations of economics cannot be kept tightly separated but are closely interconnected and often overlapping.

The paper is divided into four sections. In the first section we discuss the rise

of instinct theory in economics. In so doing, we briefly review the contributions of Thorstein Veblen and of several other exponents of American institutionalism who, more or less influenced by Veblen himself, attempted to forge an instinct based theory of human behavior. In this connection the work of some non-institutionalists writers also will be analyzed. The second section deals with the decline of instinct theory and the parallel emergence of the debate over behavioristic psychology in economics. The third section examines the "mainstream response" to the institutionalist attack and some ensuing developments within institutionalism in the 1930s and early 1940s. The final section presents a conclusion.

## II. THE RISE OF INSTINCT THEORY IN ECONOMICS

### *Veblen's* The Instinct Of Workmanship

The use of instinct theory by institutionalists can be traced back to the turn of the last century. Thorstein Veblen, for instance, discusses human instincts as early as the *Theory of the Leisure Class* (Veblen 1899), while more vague references to innate dispositions can be found even in his previous writings. Roughly a decade later, Wesley Clair Mitchell presented a detailed sketch of McDougall's version of instinct theory, arguing for a closer cross-fertilization between economics and psychology (Mitchell 1910). Our reconstruction of the rise of instinct theory among institutionalists, however, begins with an analysis of Veblen's 1914 volume on *The Instinct of Workmanship and the State of the Industrial Arts.* We do this for two main reasons: first of all because, as already noted by one writer (Tilman 1996, p. 74), the first portion of *The Instinct of Workmanship* contains what can be considered the most systematic and consistent presentation of Veblen's psychological theory, and secondly, because Veblen's 1914 volume had a major impact on other institutionalists, triggering a series of more or less successful attempts to develop and refine Veblen's ideas concerning the role of instincts in human action.[1]

Veblen began his discussion by admitting that terms such as "instinct" and "instinctive" had lost much of their appeal among scholars of the biological and cognitive sciences. Nevertheless, he argued, as far as a genetic inquiry into the nature and causes of the growth of institutions is concerned, the situation presents itself in a quite different fashion:

> A genetic inquiry into institutions will address itself to the growth of habits and conventions, as conditioned by the material environment and by the *innate and persistent propensities of human nature*; and for these propensities, as they take affect in the give and take of *cultural growth*, no better designation than the "time-worn" instinct is available (Veblen 1914, pp. 2–3, both emphases added).

This quotation is quite revealing of Veblen's intention of laying down the foundations of his own brand of social psychology. References to both the "innate and persistent propensities of human nature" and to the effects of "cultural growth" bear witness to his willingness to place the biological aspects

[1] A more complete and exhaustive treatment of Veblen's ideas concerning instincts, can be found in Tilman (1996), Leathers (1990), Rutherford (1984, 1998).

of human nature within the dynamics of cultural evolution. Veblen's use of the term "instinct," then, becomes an effort to forge an analytical category for the understanding of human behavior. Veblen conceives instincts as universal goals or propensities inborn in the human agent and transmitted as "hereditary traits." In this connection, it should be noted that in spite of the fact that in some passages Veblen does discuss the diversity of instinctive endowments between races and within racial hybrids, the race specificity of instincts plays only a marginal role in his analysis[2]; Veblen's main contention is that the basic characteristics of human nature are remarkably consistent: "the complement of instincts native to the several races is after all of much the same kind, comprising substantially the same ends" (Veblen 1914, p. 24).

Although Veblen admitted that all instincts touch, blend, overlap, and interfere with each other, and therefore cannot be conceived as acting in isolation from others, he advanced his own taxonomy of instincts according to their "teleological content." Veblen's own list of instincts is well known, has been extensively dealt with by several interpreters (Tilman 1996; Leathers 1990; Rutherford 1984), and just needs a succinct recapitulation here. Two groups can be roughly discerned: other-regarding and self-regarding instincts. The former have as their aim the welfare of the family, clan or group, while the latter find expression in aggression, predation, and domination. According to Veblen the instinct of workmanship is the "chief" among the instinctive dispositions belonging to the first class, and manifests itself in the pleasure derived out of working. Such a pleasure must not be confused with the reward that is obtained for the performance of a job, but is rather a form of gratification derived from the "efficient use of the means at hand and adequate management of the resources available for the purposes of life" (Veblen 1914, p. 31). Two other instincts falling into the first class are the parental bent, a solicitude for the incoming generation and, more generally, for the group to which the individual belongs, and the instinct of idle curiosity, namely, the search for knowledge for other than pragmatic reasons.

These several instinctive propensities, in turn, give rise to patterns of behavior directed to their achievement and which, as Veblen explicitly points out, involve the use of a certain degree of human consciousness and intelligence (Veblen 1914, p. 30). In order to make this point more forcefully Veblen introduced his well-known distinction between instinct and tropism. While the former implies conscious effort and intelligent adaptation towards the selected ends, the latter falls into the class of mere automatic physiological responses from a received impulse.

As far as the use of intelligent and deliberative effort is concerned, the instinct of workmanship rests on a peculiar ground. According to Veblen, in fact, its main content is "serviceability" for the attainment of the other instinctive proclivities. With its sense of merit in serviceable and efficient activity, workmanship is considered by Veblen as basically "auxiliary" to the other instincts: "[i]t (the instinct of workmanship) has essentially to do with proximate rather than ulterior ends" (Veblen 1914, p. 31). To put it differently, Veblen attributed to workmanship a major role in establishing connections between instincts and habits. Following James, Veblen believed that the everlasting search for efficient

[2]See discussion in Rutherford (1998).

ways to satisfy instincts leads to the development of habits, so that "the manner, and in a great degree the measure, in which the instinctive ends of life are worked out under any given cultural situation is somewhat closely conditioned by these elements of habit, which so fall into shape as an accepted scheme of life" (Veblen 1914, pp. 6–7). These habits, once formed, accumulate and acquire social relevance through a process of formal or informal enforcement, assuming the status of an institution. As Veblen put it:

> Cumulatively, therefore, habit creates usages, customs, conventions, preconceptions, composite principles of conduct that run back only indirectly to the native predispositions of the race, *but that may affect the working out of any given line of endeavor in much the same way as if these habitual elements were of the nature of a native bias* (Veblen 1914, p. 39, emphasis added).

By locating in habits the original source of institutions, and by asserting that habits influence human behavior in the same way as if they were a sort of a "native bias," Veblen was able to elude the trap of biological determinism. Veblen's instincts, in fact, must be viewed in their dynamic relationship with the environment: on the one hand it is the influence exercised by the institutional framework on the hereditary make-up of individuals that determines human conduct; on the other it is the continuous search of ways and means to satisfy these hereditary tendencies that gives rise to habits, which in turn become incorporated into a body of culture and originate institutions, social conventions, and human enterprises. As correctly emphasized by Malcolm Rutherford, the institutional evolution deriving from such a dynamic interaction between the innate propensities of man and the influence exercised on human nature by his material and cultural environment is inherently non-teleological:

> there is no presumption that the set of ways and means as it evolves over time tends to become better adapted to the expressions of man's instinctive nature. Certain instincts can undergo "inversion" or self-contamination that results in the generation of habits of thought at odds with the original functional content of the instinct . . . so that cumulative institutional evolution may work to hinder the free expression of the instincts . . . In Veblen's view, over the course of history, institutional schemes have varied greatly in their consistency with the expression of the basic instinctive nature of the species (Rutherford 1998, p. 467).

Veblen's general schema was, of course, not devoid of shortcomings and internal inconsistencies. It cannot be denied, for instance, that Veblen wavers in his account of the relative strength of instincts in determining human conduct. In some passages, in fact, Veblen seems to believe that instincts do play a major role in directing human behavior only in the earliest phases of cultural evolution, whenever the institutional framework has not reached the complexity and pervasiveness of the industrial order. But, at another point, in a rather categorical and unqualified fashion, Veblen is found to assert that "human activity, in so far as it can be spoken of as conduct, can never exceed the scope of these instinctive dispositions, by initiative of which man takes action" (Veblen 1914, p. 1). Other major shortcomings concern Veblen's lack of precision and consistency both in explaining the functional relationship between instincts and habits, and in exploring the process through which habits acquire the status of social institutions.

It remains nevertheless true that Veblen's attempt to find an original way out from the old "nature versus nurture controversy," contained interesting and fruitful insights. In the years that followed the publication of his 1914 book, Veblen's theory of instincts succeeded in attracting the attention of many American economists—mainly, albeit not exclusively, of institutionalist persuasion. The next section is devoted to an analysis of their contributions.

## *Instinct Theory and Economic Behavior*

Between 1915 and 1924 a number of studies were published on the possible applications of instinct theory to the world of industry.[3] Their common intention was to establish a relationship between the concepts of instincts and human motives on the one hand, and the real working of industry and the shaping of industrial relations on the other. More or less directly inspired by Veblen's *The Instinct of Workmanship*, most authors shared the ambition that their research on instinct theory and industrial psychology might lead to a better understanding of real events and their ultimate causes.

Instinct theory was used to attempt to broaden the perspective of economics by paying attention to those aspects and motivations of the social environment that directly influenced economic decisions and could not readily fit into the rubrics of traditional economic theory. Thus, instincts, proclivities, and urges began to acquire the status of "guiding principles" for a better understanding of human behavior. Some of them were also considered as "significant elements" for the achievement and advancement of material welfare.

Inspired by Veblen's book on the instinct of workmanship, all these works seemed to share a common concern: the way the modern American corporation was actually organized and managed was dangerously bound to smother the positive contribution of the individual agent by annihilating his more powerful creative instincts. To prove this statement, many references were made to the decline of the instinct of contrivance, the instinct of proprietorship, the instinct of creation and the instinct of curiosity. Widely shared was the conclusion that they were all disappearing in a large and possibly growing proportion of men. On the contrary, it was argued that the modern corporation was driven by instincts developed by a minority of agents and were not so strongly related, as it was often assumed, to considerations of efficiency and money making philosophy.

Among those institutionalists who followed Veblen in employing instinct psychology, Carleton Parker was perhaps the most influential. A lucid statement of Parker's psychological approach is to be found in a paper entitled "Motives in Economic Life" (Parker 1918), which represents the last piece of writing three months before his sudden death. The paper was read before the American Economic Association in January 1918 and published the very same year in the *American Economic Review*.

Parker started with a biological definition of instincts directly borrowed from McDougall's. Economic behavior, he pointed out, could be viewed as a response

[3] See the exhaustive survey in Snow (1924).

to deep-rooted instinctive motivation, "All human activity, then, is untiringly actuated by the demand for realization of the instinct wants. If an artificially limited field of human endeavor be called economic life, all of its so called motives hark directly back to the human instincts for their origin. There are in truth, no economic motives as such" (Parker 1918, 1972, p. 137).

Parker emphasized, in particular, the relevance of instinct psychology for contemporary labor problems in industry, warning against the consequences of instincts repression among laborers. His main argument was that modern industrial society was bound to frustrate workers' most constructive instincts, thus making them alienated and potentially ready for rebellion and unrest. The remedy he suggested was simple and straightforward: change labor conditions and permit the workers' positive impulses to achieve satisfactory and socially acceptable forms of outlet.

As to his taxonomy of instincts, Parker did not share Veblen's parsimony, and listed sixteen instinctive tendencies each of which he believed to possess "survival value" for the race, to be hereditary, and to exist throughout the human species (Parker 1918, pp. 217). They included the following: gregariousness, parental bent, curiosity, acquisition, fear, mental activity, housing (settling), migration, hunting, pugnacity, revolt, revulsion, leadership, subordination, display (ostentation), and the sex instinct. Quite surprisingly, workmanship does not appear in Parker's list.

The taxonomic aspect of Parker's instinct theory is perhaps less important than the functional one. In this connection, although Parker repeatedly cited Veblen as a very influential source,[4] the differences between the two were quite substantial. Parker is in fact rather ambiguous in his definition of instincts: while in some passages he seems to follow Veblen in affirming that instincts provide a set of original, or basic, goals of action, in some other places, for instance in his discussion of the instinct of anger or pugnacity (Parker 1918, pp. 224), he appears to consider instincts as *unlearned capacities* (Parker 1918, p. 217), determining actions themselves. Moreover, while Veblen considered human instincts sufficiently malleable and plastic as to be "contaminated" by the social environment, Parker repeatedly insisted on the "persistence" of these native tendencies. According to Parker, instinctive tendencies are persistent in the sense that "*they are far less warped or modified by the environment than we believe*; that they function quite as they have for a hundred thousand years; that they . . . can at times dominate singly the entire behavior and act as if they were a clear character dominant" (Parker 1918, p. 218, emphasis added). Unlike Veblen, Parker did not distinguish between instincts and tropisms, nor did he discuss in detail the interaction between instinctive tendencies and habits, contenting himself with rather vague and elusive assertions such as: "[a] certain environment can habituate man to specialization in gratification of a single or pair of instincts" (Parker 1918, p. 226).

Such a deterministic and unqualified version of instinct theory attracted the criticism of Frank Fetter and the leading institutionalist Wesley Clair Mitchell. Both Mitchell and Fetter emphasized the necessity of recognizing and acknow-

[4] Interestingly, Parker's *The Casual Laborer and Other Essays*, posthumously published in 1920, was dedicated to Thorstein Veblen. On Parker's life and research agenda see Cornelia Stratton Parker's biography of her husband (1919).

ledging the role of social institutions in shaping human conduct. In particular, Mitchell insisted on the lack of experimental evidence in Parker's taxonomy of human instincts, while Fetter slighted Parker's contention that modern industrial systems were frustrating workers' constructive instincts, triggering, as a consequence, dangerous reactions against the social order. The ultimate causes of possible threats against capitalism were to be found in the failings of the educational system rather than in the biological nature of men (Fetter 1918, p. 235). This line of criticism will be among the recurrent themes in the anti-instincts campaign of the early 1920s.

Lionel D. Edie is another institutionalist who extensively dealt with instinct theory. He did so particularly in the first part of his popular textbook, *Principles of the New Economics*. Edie's economic psychology was a rather sophisticated version of instinct psychology that was not intended to be exclusively applied to the problems of industry. He described men as "bundles of tendencies to act" and defined these inherent human traits as "instinctive tendencies." Edie distinguished two different categories of instincts: those playing a paramount role for the understanding of economic behavior (workmanship, possession, self-assertion, submissiveness, parental bent, gregariousness, fight and fear, and the sexual impulse), and those of minor economic significance (hunting, homing, migration, play, mental activity). According to Edie, the social scientist must be ready to add other instincts to this list whenever a different standpoint—different from the economic—was adopted.

As in the case of Parker, however, we are more concerned with the functional aspect of his treatment of instincts. In this connection, the most original part of Edie's discussion, and the one representing a significant advance with respect to Veblen's, is the analysis of the interaction between instinctive tendencies and the external environment. According to Edie, the influence of instincts is mediated by social intercourse through habit, imitation, sympathy, and suggestion (Edie 1922, p. 41). In dealing with the role of habit, Edie's position is quite close to Veblen's. He affirmed that every instinct tends to find habitual forms of outlet. Habits are seen both as a human device for saving mental energy, and as a way through which instinctive tendencies can be socially modified or even supplanted. "Thus," he concluded, "human nature comes to be in a large degree a bundle of habits formed in the service of a bundle of instincts" (Edie 1822, p. 42). As to the other forms of social contamination of instinctive conduct, imitation refers to the tendency to emulate actions within a social group; sympathy, to the tendency to experience and share the emotions of the group; suggestion, to the tendency to accept without critical scrutiny the ideas and opinions of the group.

What is, Edie concluded, their ultimate influence upon the cumulative change of social institutions? For Edie, habit becomes a rigidity of mind that plays a conservative role in the adaptive process of the community as it strives toward change; imitation can potentially be either conservative or progressive; sympathy and suggestibility make for unity in feeling and thought, exercising in such a manner "a major influence in organizing all the dispositions into human nature and human behavior" (Edie 1922, p. 45).

Finally, as far as the process of adaptation is concerned, Edie described four different courses of action through which human nature can adjust to the

requirements of the social and material environment: discipline; elimination of the socially undesirable impulses (largely a consequence of discipline); sublimation, namely the devotion of socially undesirable instincts to useful ends; and rationalization, i.e., the *ex post* search for a socially acceptable justification for an instinctive pattern of action. Lack of success in adaptation, then, can lead the frustrated individual to psychic revolt or mental disease, which are to be considered as "the finished product of men's futile attempts to adapt his human nature to certain repressive features of his economic environment" (Edie 1922, p. 67). In such a case, Edie concluded, when the conflict between the stable instincts and the evolving institutions cannot be settled, the only way to restore harmony is to reform existing institutions.

Thus, Edie's work on instincts points to the same direction as that of Veblen. Like Veblen, Edie saw instinctive action as teleological, normally, although not always, having as its aim the welfare of the individual or the group. Still like Veblen, Edie insisted that the continuous effort of achieving these instinctive tendencies requires the action of consciousness and intelligence. In this connection, the first portion of his textbook can be viewed as an attempt to systematize and give unity to many of the insights contained in Veblen's 1914 volume. Unlike Veblen, however, Edie's instinct theory places more emphasis on human ability to interact with the circumstances of the economic environment. Both the individual and the collective capacity to discipline, eliminate, or sublimate the potentially dangerous instinctive tendencies were conceived as "an indication of the efficiency and success of men in their economic pursuits" (Edie 1922, p. 67).

## *Instinct Theory Beyond Institutionalism*

As mentioned before, the debate over instinct theory in economics was not limited to the institutionalist citadel, but it also involved more traditionally inclined thinkers, as well as scholars in the emerging field of industrial relations. Deeply influenced by Marshall and not affiliated with the emerging movement of institutionalism, Frank Taussig was among the first figures, if not the first, who drew upon Veblen's 1914 analysis of human behavior.[5]

[5] Referring to Veblen's *Instinct of Workmanship*, Taussig wrote: "a brilliant and original book, like everything that comes from his pen" (Taussig 1915, n. 85). Taussig's correspondence with Wesley Clair Mitchell shows that the Harvard economist was influenced by Veblen's psychological studies even before the publication of Veblen's *Instinct of Workmanship*:

> Do you happen to know just how much Veblen has done on his inquiry as to the instinct of workmanship? I have had some correspondence with him about it and we have a provisional arrangement by which he is to send an article on to the *Quarterly Journal of Economics* when ready. Do you happen to know whether his inquiries have yielded enough in the way of specific information to make a short course of lectures? The suggestion has been made that he be invited to come and give a set of say, three lectures upon this subject, printing the substance of them later as an article or articles in the journal. As you know, I think well of Veblen and have learned from Young of his difficulties for the present year. Though we should not for a moment think of asking him to lecture here for the mere purpose of helping him out, I for one should be glad to do him a good turn, if he has enough to say
> (Taussig to Mitchell, November 16, 1910. Mitchell Papers, Rare Book and Manuscript Library, Columbia University.)

Taussig (1915) had acknowledged that the theory of instincts was the milestone on which modern economics had been built. Adam Smith, Taussig recalled, had traced the origins of the division of labor not in a pre-determined stock of natural endowments of human agents, but in their instinctive propensities towards exchange and the creation of one's own individual abilities. Consequently, also for the Harvard economist, consideration of instincts in economic theorizing ought not to become an intellectual fashion inspired by recent improvements in the field of psychology; rather, it was part of a pragmatic effort to constrain and qualify the kind of rationality which governs economic phenomena. In a series of lectures, Taussig argued that businessmen, inventors, innovators, and in more general terms, the institutional environment all exerted an enormous influence in developing some instincts and in thwarting others. Moneymaking inventions provided a good example from which to study the genesis and growth of the different kind of instincts. Some instincts, in fact, had an irrational foundation; others were extremely volatile, without any apparent purpose—almost whimsical; and finally, there were also instincts spontaneously directed toward promising experiments in the spirit of pure scientific research.

According to Taussig's own list, the driving forces that lay behind the growth of the modern corporation were quite distant from moneymaking purposes or the growth of the general welfare. In prominent position, Taussig ranked the instincts of domination or megalomania, the instinct of emulation, the love for social distinction, the love of activity for its own sake. These instincts, he found, were particularly useful to explain the psychology of modern entrepreneurs. They also stood behind the recent push toward large-scale operations, aggressive price policies, strategies of vertical consolidation and restrictions, the outburst of financial innovations.

Also, Parker's use of the idea of thwarted instinctive drives as an explanation of labor unrest and various problems in industrial management had quite an impact among sociologists and social scientists. Veblen's colleague at the New School for Social Research, Ordway Tead, directly linked the phenomena of industrial unrest, social injustice, and absence of industrial democracy to the suppression and sublimation of individual energies and attitudes.[6] This occurred with greater frequency—the recurrent theme of Tead's *Instinct in Industry*—whenever relations between businessmen and manual workers became impersonal and routinized. Throughout the book, Tead cautiously avoided conclusions according to which human behavior was seen as purely instinctive. His definition of instinct as an inborn disposition that is both variable and adaptive, allowed

[6] In spite of Tead's numerous references to the work of Veblen, his main source of influence appears to be Carleton H. Parker's. As Tead himself acknowledges in the introductory pages of his book:

> This book is my own only in the sense that I have elaborated the suggestions of a friend. I met Professor Carleton H. Parker, then of the University of California, when he came to New York in the winter of 1916–1917, and in the course of a conversation about the way in which a knowledge of modern psychology explains and renders intelligible the behavior of people, he said, "I should think that your work in factories would bring to your attention many admirable illustrations of this. You ought to collect them" (Tead 1918, p. xiv).

him, through reference to imitation and habits, to have distance from Parker's more deterministic view of human instincts.

What is perhaps more interesting for our purposes, is the applied side of Tead's story where he intuitively established connections between instinct theory and modern industrial life. Study of instincts was helpful to understand and explain the genesis of industrial innovations and the way market relations were structured. Tead put great emphasis on the existence of herd instincts in the actual behavior of consumers and of the labor force. Contemporary human affairs, he argued, were profoundly influenced by herd situations. Such phenomena as national loyalty, group attachment, liability to panic, and sensitivity to leadership arise as agents instinctively seek for self-protection and self-assurance from the external environment. These instincts needed to be reckoned as a driving force of economic decisions. Herd behavior was also determined by a need for order, coherence, and discipline, which, most of the time, might oppose the growth of new ideas and innovations. Finally, the presence of herd instincts undermined the possibility of objective calculations based on the existence of predetermined "pure instincts." The tendency to act safely and in line with external suggestions or previous actions brought about the formation of a "brain path" which is "a distinctly qualifying factor in behavior" (Tead 1918, p. 9). Thus, herd instincts had a dynamic impact on markets, since they were unpredictable and erratic in character and tended to vary with the extent of protection needed. Consequently, Tead suggested their relevance required a profound reform of the labor market since mechanisms of protection and risk management should be considered as a form of public good.

In a similar vein, Helen Marot applied instinct theory to analyze problems of social reform of the labor market.[7] In her book, the "creative impulse" played a normative role providing a trans-cultural standard against which different industrial systems, namely the German and the American ones, could be compared and evaluated. In a typical Veblenian fashion, Marot distinguished between pecuniary and non-pecuniary motives in economic behavior. Accordingly, the fundamental dichotomy that emerged in modern labor markets was the one between business and education. The former had no other purpose than the production of goods and the accumulation of wealth. Educational programs, on the contrary, eased the emergence and dissemination of the creative impulse and placed the individual's growth as the basis for social progress and economic democracy. On these grounds, critical considerations were raised against Taylorism. The inability, Marot wrote:

> of Taylor and other scientific managers to distinguish initiative and short lived reactions to stimulus is simple evidence that their scientific experiments were confined to comparisons which they could make between a yield in wealth where the stimulus to labor is weak, and a yield where it is strong. They will not discover what a worker's productivity is, or might be, when incited by his

[7] Helen Marot came into close contact with Veblen during the years 1918–1920, when she served in the editorial staff of the *Dial*. According to Joseph Dorfman: "Helen Marot, who owned some stock in the *Dial*, became interested in Veblen's view and persuaded him to prepare some articles for that magazine" (Dorfman 1934, p. 179).

> impulse to work, nor will they secure labor's initiative, until they release the factors, latent in industry, which have inspirational, creative force (Marot 1918, p. 32).

Both Tead and Marot's works attracted the attention of some leading institutionalists (L. Ardrzooni 1919; J. R. Commons 1920; J. M. Clark 1927). Even Irving Fisher, in a presidential address read before the American Association for Labor Legislation, listed seven fundamental human instincts, attributing disputes between employers and employees to the thwarting of these instinctive tendencies among workers due to modern conditions of factory production. The wish to strike a better bargain, Fisher noted, was merely one of them and did not always play a prominent position (Fisher 1918). Most significantly, his 1918 presidential address before the American Economic Association reaffirmed that applications of instinct theory to industry could offer an important contribution to economic analysis and inquiry. Apart from all considerations which favored schemes of income redistribution, instinct theory could help clarify the equity-efficiency dilemma, and to analyze the fundamental nature of industrial relations, industrial reform, and industrial discontent. Fisher referred to his fellow associates on the creative and other impulses emphasized by Marot and Tead, and quoted with approval the pioneering contributions in this field by Carleton Parker, whose "work will, I hope, never be forgotten." Fisher's presidential address on the economists in public service contained several comments on the possible areas of cooperation between economists and psychologists in the postwar world. Among these Fisher recalled that "Just as the large capitalist does not usually accumulate for his children but for the love of accumulation, and just as all inventors do not usually invent merely or even chiefly for money but for the love of inventing so the workman can be motivated also by quite different motives from the ordinary pay envelope motive" (Fisher 1919, pp. 17–18).

## III. THE FALL OF INSTINCT THEORY AND THE ADVENT OF BEHAVIORISM IN ECONOMICS

### *The Early Anti-Instinct Revolt*

As shown in the previous sections, when the premises of institutionalism were laid down in the 1890s, "modern psychology" coincided with the instinct psychology of W. James, W. McDougall, and others. Since his early methodological essays,[8] Veblen had drawn extensively from this literature and his works had a considerable impact on contemporary economics. Instinct psychology, however, shortly began to decline. Even before psychologists had begun to follow Watson into his behavioristic critique of instinct psychology, social scientists—and among them, economists in particular—had already expressed their reservation and cast serious doubts about its validity for the study of human behavior.

Quite interestingly, early critical comments against instinct psychology were raised from the institutionalist camp. As early as 1914, for instance, W. C. Mitchell had pointed out some ambiguities in Veblen's definition of the term

[8] See Tilman (1996) for an analysis of the doctrinal roots of Veblen's psychology.

"instinct" as presented in *The Instinct of Workmanship*. In his discussion, Mitchell recognized and acknowledged the strong cultural implications of Veblen's conception of instinct.[9] However, there was one aspect, he wrote, "at which we may fairly ask Mr. Veblen to modify his language." In his opinion, Veblen had contradicted himself in arguing that instincts were "hereditary traits." In making such a statement Veblen had momentarily reverted from his own meaning to the traditional concept of instincts as mere physiological traits of human nature devoid of any social and cultural content (Mitchell 1914, p. 22).[10]

At the beginning of the 1920s the anti-instinct revolt in economics was gaining momentum.[11] Among the most active critics of instinct theory we find institutionalists such as Clarence Ayres and Morris A. Copeland, together with a non-institutionalist such as Frank H. Knight.[12] We can roughly group their critical reactions against instincts into two different clusters. A first line of criticism focused on the perceived tautological content of instinct theory. In 1922 Knight noted that:

> If instincts are to be scientifically useful, it must surely be possible to get some idea of their number and identity. But there has always been substantially unanimous disagreement on this point. Logically the choice seems to lie between a meaningless single instinct to do things-in-general and the equally meaningless hypothesis of a separate instinct for every possible act (Knight 1922, p. 467).

Knight thus strongly rejected the usefulness for economics of any working taxonomy of instincts, pointing out that it would always be possible to find *ad hoc* justifications for any kind of human behavior simply by adding one new instinct to the existing set. "Instinct" as an analytical category to explain human behavior was therefore devoid of any predictive power. Knight wrote in 1924, "It is not practically helpful to be told that some one of the possibilities of a situation will eventuate, though it may have a power, somewhat difficult to

[9] "Now instincts as they function 'in the give and take of cultural growth,' which is Veblen's business, differ from instinct as parts of the original nature of man ... and from instincts as a feature in the evolution of the nervous system" (Mitchell 1914, p. 21).

[10] Mitchell's remark appears quite pertinent. In his pre-1914 discussion of instinct, in fact, Veblen was rather ambiguous about the hereditary character of these innate dispositions and in some passages seems to refer to instincts as culturally transmitted patterns of behavior.

[11] In the early 1920s, among social psychologists, issues related to instinct theory were frequently debated: see, for instance, McDougall (1924) and especially Kantor (1922, 1924). This paragraph, however, focuses only on the debate within economics.

[12] In their anti-instinct campaign, both Ayres and Copeland were deeply influenced by the work of J. R. Kantor. A psychologist at Chicago and then at Indiana University, Kantor elaborated in 1920 upon Dunlap's objections to the teleological nature of instinct theory. While willing to accept reflexes as part of human behavior, Kantor insisted that so-called instinctive behavior was actually shaped by thought and habit. Indeed, "most of our ordinary behavior is instinctive conduct, but this does not mean in any sense that complex actions such as we perform are the expression of a few inborn impulses." To believe that they are, he wrote, was to resort to a form of "scholastic simplicity which is genuinely subversive of all understanding of human behavior" (Kantor quoted in Degler 1991). In his critique of instinct theory Knight never refer to Kantor's works, although it seems rather plausible that the two men had met by the late 1910s, when their presence overlapped at the University of Chicago. Sheer coincidence as it may be, other critics of instinct theory—such as Ayres (instructor in philosophy) and Copeland (Doctoral student in economics)—were resident at Chicago at the same time.

account for, of satisfying—after the event—a certain type of craving for a reason why'' (Knight 1924, p. 248). In a rather similar vein, Ayres commented, ''It [instinct literature) exhibits instincts of the most contrariwise characters, and an indefinite number of them, and consequently it is rapidly disposing of instinct as something that it is to be taken seriously in human behavior'' (Ayres 1921, p. 561; see also Copeland 1924, p. 128).

Secondly, instinct theory was criticized on the ground that too much emphasis was placed on the biological determinants of human behavior and that no adequate consideration was given to the cultural and environmental factors as a contributory cause of human activity and motivations. Both Ayres and Knight provide excellent examples of this line of criticism: according to the former, man as a social organism is largely under the push of cultural rather than biological motives. Social psychology, Ayres wrote, is a field wholly apart from animal ethology: ''Its technique of analysis invokes not organic tropisms (unimportant in the life of societies) but beliefs and superstitions, crafts and arts, human association worked into the whole *cultural*-emotional life of a people by the practice of generations'' (Ayres 1921, p. 565, emphasis added). Ayres's main contention can be briefly summed up by quoting the closing sentence of his article: wondering what the driving force that ultimately formed individuals might be, Ayres stated that ''the social scientist has no need of instincts; he has institutions'' (Ayres 1921, p. 565).

Frank Knight advanced a similar argument. He began conceding that the biological nature of the human organism provides an important part in explaining human behavior, for man is subject to hunger, thirst, and the need for sex like any other animal. Accordingly, all these ''general'' activities have to be considered as innate and largely unlearned. ''Yet,'' Knight said, ''it is most essential to observe that these are not specific activities, that the concrete content of all of them, what is eaten and how, the forms of courtship and family life, the language spoken and so on—are after all acquired, and within astonishingly wide limits one type of content is acquired as readily as another'' (Knight 1924, p. 248). However critical towards instinct theory, Knight remained optimistic about the future developments of social psychology. In his review of Edie's *Principles of New Economics*, he affirmed, echoing Ayres, that he was under the impression that ''the tendency of the more careful students in this domain [social psychology] is already strongly away from the use of 'instincts' to explain everything in the field of human contact'' and observed that ''the movement is toward a real 'psychology,' viewing behavior as the expression of conscious attitudes toward values whose content is largely an institutional product'' (Knight 1923, p. 155).

A few more words should be spent on Copeland's criticism of instinct theory, which contains some elements of originality as compared to Ayres's and Knight's. Copeland's interest in studying the connections between economics and psychology was already manifest in his Ph.D. dissertation (Copeland 1921), where he devoted a whole appendix to the ''Psychological Implications of Institutionalism.'' There, Copeland discussed the variety of meanings given to instinct by several writers. While some authors had conceived instincts as inborn reaction-patterns to which a definite stimulus is appropriate, others had described them as an innate function proper to man, a ''human entelechy.'' Men's behavior,

Copeland continued, was in this case interpreted in teleological terms: instinct had become a *normative* concept, based as it was on a subjective and arbitrary judgment by the scientists, rather than on an objective denotation of behavior. Under such circumstances, human welfare and self-realization are achieved by the free expression of human instincts, while suppression of these innate functional tendencies would produce frustration and "abnormality." The champion of this view of human instinct was, in Copeland's opinion, Carleton Parker rather than Veblen:

> Parker's instincts are normative. In this respect he is in accord with the psychiatrists, who, being practitioners rather than scientists, make it their business to formulate normative judgments. As an economist, Parker doubtless finds this philosophical position familiar ground. It is the Utilitarian notion of laissez-faire with a somewhat different content. Self expression rather than the expression of Natural Law is to be "let alone" ... Curiously enough Veblen, whose statement of instincts is blatantly teleological, scarcely uses the teleological concept after the first chapter. The sense in which he makes uses of the term (as distinguished from his statement of what he means by it) is very close to what is here called *capacities* or *talents* (Copeland 1921, Notes X5.2).

Copeland condemned such a normative view, because in what he considered the proper interpretation of instincts there was no such thing as a "normal" course of instinctive expression. When the stimulus occurs, the instinctive response either follows or fails to follow as predicted. If the response fails to follow, it is presumably the hypothesis on the basis of which the prediction was made that is "wrong" and not the responding stimulus. As the above remarks show, Copeland's dissertation largely anticipated the behavioristic climate of the mid 1920s and served as the basis for his later contributions in the field of economic methodology (see, especially, Copeland 1924).

## *Behaviorism Encounters Institutional Economics*[13]

Launched in 1913 by John B. Watson's much celebrated series of lectures at Columbia University, behaviorism soon began to gain momentum throughout American psychology. During the 1920s, the work of a growing number of psychologists led to the emergence of a reasonably coherent set of intellectual commitments to which the name behaviorism gradually became attached. Its main tenets were the removal of introspection in psychological theory, a dedication to the use of objective methodology in research, and a strong concern for the practical application of psychological knowledge to the prediction and control of behavior.

At the same time that instinct theory was losing its appeal in psychology, many institutionalists started to look at behaviorism as the new "up-to-date" approach for the construction of an alternative theory of human agency in economics. This circumstance is confirmed by the large number of references to behaviorism that is to be found in "institutionalist" economic literature (see,

[13]This paragraph draws upon Asso and Fiorito (2003).

among many others, Copeland 1924 and 1925; Mitchell 1925; Tugwell 1922; Wolfe 1924).

As many interpreters have observed (Hodgson 1999; Mirowski 1987; Rutherford 2000a, 2000b; see also O'Donnell 1985; Smith 1986), such an enthusiastic embrace of behaviorism was directly related to the growing favor of positivism in the social sciences. For the institutionalist, behaviorism seemed to be consistent with the positivist belief that the only domain for achieving scientific knowledge, i.e., knowledge based on direct, systematic and neutral observation, was the domain of natural science. Natural science, with its mixture of formal analysis, empirical investigation into cause-and-effect relationships, and resulting theories capable of prediction and control over nature, became the paradigm against which all other forms of knowledge ought to be measured. Accordingly, society was seen as an objective reality whose constituents, structure and functioning obey regularities. Behaviorism fitted perfectly into this new conception of method and approach in social science. In this connection, the following quote from an article on business cycles by Lawrence Kelso Frank, a former student of Mitchell at Columbia,[14] is particularly revealing:

> As Henri Poincaré has said, it is the repeating facts of nature which make science possible. *In the social field, it is the habits of men—the stable, almost fixed, response they give to stimuli—which make a social science possible, just as it is fixed unchanging responses—say of metals to acids—which make chemical science possible.* If we are to study cycles as social scientists, then it will be necessary, apparently, to study them as manifestations of the habits of men in a money economy (Frank 1923, p. 641, emphasis added).

Other institutionalists insisted on the possibility of making predictions about human behavior by applying to it methods of inquiry that had proved so successful in the natural sciences, namely observation and experimentation. As Copeland once wrote to Eveline Burns, "I regard Institutionalism as an attempt to apply the natural science point of view in economics. According to this view economics seems to me to be a branch of biology."[15]

In what follows, an attempt is made to define the behaviorist program in institutional economics or, rather, the common themes as they were presented in the literature. As already discussed in another paper (Asso and Fiorito 2003), Morris A. Copeland, more than anybody else, made a systematic treatment of behavioristic psychology.[16] Therefore, his works will be our main, although not exclusive, source of reference. Interpreting Copeland, the key propositions of behaviorism can be formulated in the three following points:

(a) *Introspection*—internal observation of one's own consciousness—must be rejected because consciousness is not an objective fact to be observed. Human

[14] For an evaluation of Frank's contributions to economics see Dorfman (1959, V, pp. 497–502) and Asso and Fiorito (2004).

[15] M. A. Copeland to E. Burns, November 14, 1930. Copeland Papers, Rare Book and Manuscript Library, Columbia University.

[16] Quite interestingly Copeland's major contributions (Copeland 1926, 1930) were hosted by one of the most prominent journals in the field of psychology. On Copeland's work and academic career, see Dorfman (1959, p. v) and Rutherford (2002).

behavior is functionally dependent upon the environment. Following Watson, few economists protested against all attempts to explain human action by exclusive reference to introspection on the grounds that mental states fell outside the range of physical measurement. Mitchell, for instance, thought that the introspective approach to the study of economic behavior was "the most treacherous of all professedly scientific methods" (Mitchell 1917, p. 115). Conversely, human behavior was viewed as belonging to the same realm as physics, in its strictly mechanical interpretation, and defined in terms of the organism's "organized" reaction to an antecedent stimulation. It was also argued that economic agents developed new chains of habits from past experiences, which strongly influenced the prospective evolution of economic actions and reactions. Such an argument was best put forward in Frank's words, "This does not mean that a stimulus (event, person, or thing) 'causes' man's behavior, but rather that each person, from birth onward, develops a set of habits or patterns of behavior by responding to the stimuli of the environment he meets; these habits are 'touched off' whenever the appropriate stimuli appear" (Frank 1924, p. 25).

For Frank, behaviorist psychology was a rather mechanistic version of associationist psychology, organized around experiments using comparisons and conditioned responses:

> Man's behavior then, like all other phenomena, is a consequent response which follows a specific, antecedent stimulus; but the particular form or manner of the response is a stage in the process of development or evolution of habits, as formed by prior stimuli, or what we call experience. In simplest terms, then, behavior is an event, the occurrence of which is a consequent to an antecedent stimulus; but the character, quality, form, pattern, and so on of that behavior event is a product of past experience or habits (Frank 1924, p. 25).

In other words, the social scientist who sets himself the task of analyzing the causation of human behavior must be concerned with the only data objectively available, namely the past record of stimuli to the organism and the organism's actual response. In so doing, the economist may be able to specify the response as a function of the history of stimuli.

Copeland developed this theme in a rather sophisticated way. He held that human beings are equipped with certain "complexes" among the "nerve receptors," which determine a characteristic response-pattern to the corresponding stimuli from the environment. Some of these complexes are learned through experience, while some are inborn. The latter kind of complexes, Copeland conceded, may be indicated as instincts, although instincts in this stimulus-response sense must be clearly distinguished from instincts in the old teleological meaning of behavior subserving some single end (Copeland 1923, pp. 252–53).

As to the rejection of consciousness it must be noted that Copeland took a somewhat less radical position. If in the analysis of human behavior consciousness was to be given any role, mental states merely needed to be reconceptualized in terms of physical processes or to be reconstructed as an epiphenomenal byproduct of physical processes. Even in these cases, however, consciousness had to be considered as a datum rather than as an explanation or

an analytical tool: "Mental states, if not physical, must be mere parallels or duplicates of physical conditions and events" (Copeland 1926, p. 246).

(b) *Intentional, purposive descriptions are highly interpretative, and therefore do not allow intersubjective consensus. Purposive action should always be explained in terms of more basic properties of behavior.* If behavior is to be accounted for only in terms of stimulus-response patterns, explanations of human conduct based on "teleological" terms like *motive*, *intent*, *purpose*, *aim*, *desire*, *urge* and so on, should always be carefully avoided in scientific analysis. Or else they should be reconsidered within a behaviorist perspective. Frank was especially forceful in making this point: "We may give up the conception of autonomy and the problem of motivation without embarrassment to social science, if we approach the problem of human behavior as a sequence of antecedent stimulus, prior experience, or habits and consequent response" (Frank 1924, p. 25; see also Snow 1924).

Even the concept of instinct ought to be discarded insofar as it was conceived in purposive terms: "such a *metaphysical* interpretation of organic predispositions" he said, "is unintelligible" (Snow 1924, p. 492, emphasis added[17]; see also Frank 1924; Copeland 1925, 1926).

Copeland's analysis of intentional behavior in a behavioristic perspective deserves special mention. As a behaviorist, Copeland coherently rejected teleological explanations, although he did not deny that behavior shows purposive characteristics—namely, *persistence* and *flexibility*. However, such characteristics, he maintained, were also to be accounted for in non-teleological terms. In order to clarify the issue, Copeland first introduced a semantic distinction between "teleological" and "telic" behavior. The word "telic" was applied to those instances in which "antecedent responses *appear to be* determined by the consequent end;" while the word "teleological" was confined to terms or statements which implied that "consequent *determines* antecedent in telic behavior" (Copeland 1926, p. 255, emphasis added).

Now, according to Copeland, telic behavior can be explained non-teleologically as stimuli that are maintained until they are eliminated by a goal-response. Therefore, behavior shows *persistence* because different goal-responses will continue to be emitted until the inducing stimulus disappears or is substituted by a new one. Similarly, behavior shows a certain degree of *flexibility* whenever new goal-responses succeed in eliminating the inducing stimulus: "[t]he evolution of drives is partly a process of adding new reaction patterns to a given drive ... and partly a process of developing inhibitions to one of two mutually conflicting responses when both are called out together" (Copeland 1926, p. 256). It was on these grounds that Copeland dismissed the idea of rationality and a set of given preferences as was implied by the neoclassical *homo oeconomicus*: contrary to what was assumed by marginal utility theory, choice does not take place between competing desires, since what is desired may be changing during the choice-process. Choice, as he put it, is rather "a conflict between two reaction-patterns and a process of survival of one of them in the complex" (Copeland 1926, p. 263).

[17]Psychologist Adolf J. Snow wrote extensively during the 1920s on the applications of psychology to business.

(c) *Behavioral inquiry leads to the discovery of behavioral "laws," and these laws can be tested experimentally. A theory that is confirmed by repeated tests allows prediction and control*. We have already pointed out that this emphasis on objective and measurable variables was consistent with the emerging positivism. Like the logical positivists, the behaviorists shared the empiricist insistence that claims must be assessed on the basis of observational evidence. Sensory experience—the results of observations and experiments—constituted the ultimate evidence on which to base (or reject) consistent theoretical claims. Copeland made it crystal clear that the social scientist should draw a sharp distinction between appraisals (subjective) and descriptions (objective) of human behavior: "[a]ppraisal of the behavior of an organ as appropriate to the performance of the organ function is not part of the description that makes possible prediction, specification, or control of behavior" (Copeland 1926, p. 250; see also Frank 1924, n. 37).

The idea of an objective, scientific approach to the study of human behavior, which drew upon the methods of the natural sciences, turned out to be extremely appealing especially to the "quantitative" wing of institutionalism. Terms such as *experiment*, *experimental*, *quantitative techniques*, and the like became very common in the methodological debates of the 1920s. Mitchell's belligerent 1925 article provides one of the most interesting examples. According to the Columbia economist, realistic studies should not be viewed as subordinate to theoretical work, nor even as complementary. Instead:

> [i]n collecting and analyzing such experimental data as they can obtain, the quantitative workers will find their finest, but most exacting opportunities for developing statistical techniques—opportunities even finer than are offered by the recurrent phenomena of business cycles. It is conceivable that the tentative experimenting of the present may develop into the most absorbing activity of economists in the future (Mitchell 1925, p. 9).

Similar claims were made by Copeland (1924), Mills (1924), Snow (1924), and Tugwell (1924b). Nevertheless, the nature and definition of what the Columbia economist and his fellows meant by "quantitative-experimental method" often remained unclear, raising heated debates and controversies over his research projects (Schultz 1937; Seckler 1975; Fiorito and Samuels 2000).

Finally, as to the issue of social control, it should be noted that Hamilton (1919) had already listed the pragmatic nature of the "institutional approach to economic theory" among its most distinguished features, as well as one of the highest research-priorities on the agenda of postwar economic thinking. In fact, much more than Veblen, interwar institutionalists were primarily concerned with reforming society, expanding economic opportunities, and ameliorating the general welfare conditions (Rutherford 1994). Instinct theory, as more than one social scientist remarked, could provide little help in achieving these goals since no consideration was attached to social and environmental conditioning. There seems to be a strong similarity between Hamilton's pragmatic view of institutionalism and the behaviorists' claim that the goal of psychology was to lay down the groundwork for a "behavior technology." In contemporary textbooks on the

history of economic doctrines, this new strand of American economic thought began to be classified as the "behaviorist institutionalists."[18]

## IV. DEBATES ON METHOD AND THE DECLINE OF INSTITUTIONALISM

### *The Mainstream Response*

For its early promoters, behaviorism could provide a new epistemological—not merely psychological—basis for the construction of a viable alternative to mainstream economics. The dismissal of the old "metaphysics" of instinct psychology, together with the adoption of the "natural science point of view," seemed to grant institutionalism a scientific status that contrasted the "static and taxonomic, *a priori* and deductive, unrealistic, scholastically over-refined, and based on antiquated and unscientific psychology" theory of the neoclassicals (Wolfe 1924, p. 445).

Throughout the 1920s institutionalism as a movement was certainly in its upward path (Rutherford 2000b, p. 298). Things started to change at the beginning of the new, eventful decade, which deeply affected the development of institutionalism and set the stage for its decline. It is arduous to discuss here all the reasons that may stand behind the decline of institutionalism.[19] The aim of this section is to provide a brief and schematic discussion of those events having a direct impact on the story we have been telling so far. In particular, this section focuses on the "mainstream" reaction to the institutionalists' behavioristic attack, while the following examines some implications within institutionalism since the 1930s.

The immediate reaction from the "mainstream" camp to the attacks waged by Copeland and his institutionalist colleagues, was a rather passive defense of the traditional corpus of economic theory and its methodological apparatus. As early as 1919, T. N. Carver warned the readers of the *Quarterly Journal of Economics* against the emergence of a new kind of economic man—the "behavioristic man"—who was the by-product of a related school of thought, the so-called "behavioristic school of economists." Such a characterization, he argued in a strongly critical vein, seemed to have no historical specificity, sharing an odd destiny with its neoclassical counterpart. It was simply "the result of an over-emphasis upon the non-pecuniary and the neglect or under-emphasis upon the pecuniary motives, as the old economic man was the result of the opposite tendencies"[20] (Carver 1919, p. 195). In 1924, in a more radical fashion, R. T. Bye continued to express his faith in the validity of neoclassical price theory. Commenting on "Some Recent Development in Economic Theory," Bye quite ironically remarked that some contemporary critics of traditional economic theory had become "so sanguine over the possibilities of behavioristic psychology that they believe the whole of current value theory must be thrown upon the

[18] See for example, Suranyi Unger (1931) and Haney (1936).
[19] On the decline of institutionalism, see the recent discussions by Rutherford (2000a, 2000b).
[20] It should be noted, however, that Carver did not mention the name of Watson.

scrap heap and a new one constructed upon the study of human behavior'' (Bye 1924, p. 277).

If Carver and Bye merely limited themselves to passing references to behaviorism, Frank H. Knight embarked on a personal campaign against the adoption of behaviorist psychology in economics (Asso and Fiorito 2003). Both in his published works and in his private correspondence, Knight argued that behaviorists had taken the wrong turn by treating the individual as a machine, without genuine purposefulness or creativity.[21] Among his many critical remarks, Knight made the point that behaviorism, in limiting psychology to observation of individuals other than the observing scientist himself, excluded any introspection of the scientist's own internal activities. In his private correspondence with Copeland, Knight argued that behaviorists were unable, in terms of their theory, to account for their own activity as researchers. For instance, any attempt to explain why an author was actually writing a scientific article, would lead to an infinite logical regress:

> My point, which I tried to make in two articles which you took as a test for the reply (Knight 1925) ... is simply that whether anything else in human activity and experience is purposive or automatic, we *cannot* escape the fact that *arguing* about the question itself is purposive! ... This tendency to place the investigation, inquiry or argument itself outside the universe of discourse, is very interesting to me. But the fact remains that inquiry and argument are *also behavior*, and their characteristics have to be taken account of in any discussion of behavior which pretends to completeness. The next step, of course, is that you cannot finally maintain that intellectual inquiry is categorically discontinuous with other human interests and behavior—but I don't want to get off on that phase of it now.[22]

However persuasive and influential Knight's comments were, the general picture was doomed to change considerably with the emergence in the mid-1930s of a ''behaviorist mainstream economics'' (Lewin 1996), based on the contributions of Eugene Slutsky (1915), John Hicks and Roy Allen (1934), and Paul Samuelson (1938). Although none of these economists explicitly endorsed behavioristic psychology, strong indication of such a shift in attitude among mainstream economists is provided by Frank Knight's famous critique of the ''Slutsky School'' in demand theory (Knight 1944).[23]

Leaving out of this paper any detailed discussion of the so called ''ordinalist'' turn and disregarding all substantial differences among the authors who were responsible for it, we can follow Knight in saying that the new approach to demand theory presented two distinct features. The first was the substitution of the traditional conception of diminishing marginal utility of a single commodity, for a diminishing ''coefficient of substitution'' of one commodity for another.

[21] As Knight once wrote in his unpublished notes on Copeland: ''His (Copeland's) theory makes a neat machine out of personality, does it not?'' (Knight undated).

[22] Frank H. Knight to Morris A. Copeland: November 9, 1926. Knight Papers, Department of Special Collections, University of Chicago. The whole letter is published in Asso and Fiorito (2003).

[23] Among the members of the ''Slutsky School,'' Knight included the names of Allen, Hicks, Samuelson, and Schultz.

Such a coefficient, Knight pointed out, was intended to be a "purely *behavioristic* principle, or at least purely relative" (Knight 1944, p. 289; emphasis added). The second meant the adoption of an "ordinalist" conception of utility, according to which the individual is still to be considered as a maximizing agent. But "this something maximized need not, and therefore should not, be treated as a quantity in the ordinary 'cardinal' meaning, but as only 'ordinal,' that is, utilities are subject to ranking but not to real quantification" (Knight 1944, p. 290). This critique of the Slutsky school is relevant to our discussion because Knight clearly perceived that the positivistic climate of those years had also affected those economists with more orthodox theoretical predilections.[24] Just as many institutionalists had rejected instinct theory because it implied metaphysics and eluded "scientific" testing, now the bulk of mainstream economists renounced psychological hedonism on similar grounds, arguing that utility theory should be based on observed behavior alone and, consequently, could be subject to empirical verification.[25] Quite ironically, what in the early 1920s seemed to be a powerful weapon in the hands of institutionalists, after roughly a decade had become a sound and appealing psychological doctrine also for neoclassical economists.

Within American economic thought, the methodological battle over instincts and motivations had thus produced a "neoclassical synthesis" based on a working definition of human economic behavior. A lot of dust had been stirred by Veblen's followers. What remained, however, was nothing of substantial value for economics. On the destructive side, it certainly helped to ease the way out from nineteenth-century hedonism; on the constructive side, however, its contribution was of minor importance. As Allyn Young wrote in a letter to Clark in 1923:

> On the whole, I agree with you that in this country Veblen has exercised, in different ways, the most definite influence. Very few, I suppose, accept Veblen's own conclusions at their face value. In some respects his influence has resulted in work which he could not, with any consistency, approve. Frankly, I do not think the "new psychology" has contributed anything of substantial value in economics. The truth is that economics as a whole is a long way ahead of psychology. We are getting rid of the bad psychology—"quantum of satisfaction," and the rest—which infested the science in the last decade of nineteenth century.

The economist—this was Young's prophetic conclusion—"always has been a behaviorist,—not a behaviorist of the a priori sort common today, who tries to describe human activities in terms of instinct-categories that are in themselves nothing but taxonomy of the crudest sort."[26]

[24] For the more analytical aspects of Knight's critique of the Slutsky school, see Hands and Mirowski (1998).

[25] A further thrust towards behaviorism was provided by Terence Hutchison's introduction of Popper's concept of falsificationism in economics. The point is not discussed here. See Lewin (1996) and Asso and Fiorito (2003).

[26] Allyn A. Young to John M. Clark, February 5, 1923, Young Papers, Harvard University Archives.

*Later Impacts Within Institutionalism*

So much for the mainstream response to behaviorism. Let us now turn our attention to the developments within institutionalism. As we have already mentioned, it is worth noting that among institutionalists the consensus over the application of behaviorism to economics was by no means unanimous and this may in part account for the loss of unity within the movement after the 1920s. In particular, among the leading figures of the movement, neither John Commons nor John M. Clark participated to the behavioristic campaign.

As far as the Wisconsin economist is concerned, the implicit anti-behavioristic content of his approach has already been noted by Seckler (1975) and, more recently, in a skillful contribution by Albert and Ramstad (1998). Therefore we shall limit ourselves to a number of brief remarks.

Commons's skepticism towards behavioristic psychology is best illustrated by considering the conception of social evolution as presented in his *Institutional Economics* (Commons 1934). There, instead of emphasizing the strong connections between the natural and the social sciences, Commons drew a sharp line between the "natural" selection that characterizes the former, and the "artificial" selection, which operates in the latter. By artificial selection Commons meant an evolutionary process where the selection of habits, customs, and institutions is to be attributed to the intelligent, purposive, forward-looking, and creative effort of the individuals and the "going concerns"—family, corporation, trade unions, the state—through which the individual "wills" are institutionally organized and expressed. In other words, institutional change is for Commons not mere "blindly cumulative causation,"—to borrow Veblen's expression—but rather adaptation by deliberate choice. As he explicitly pointed out, it is such a "volitional ontology," unknown to such disciplines as physics, which marks off the domain of the social sciences:

> Yet the pure theory in economics cannot be identified with that in physical science, because physical materials have no purposes, wills, rights, or interests. The economist is himself a part of the purposeful subject-matter of his science. This may not appear until he is forced by a crisis to choose between conflicting interests; then his pure theory is perhaps found to contain the assumptions which directed his choice (Commons 1934, p. 103).

Although Commons himself often categorized as "behavioristic" the psychological point of view adopted in his own variant of institutionalism, he carefully distinguished his use of the term from Watson's. The word behaviorism, he wrote:

> has been appropriated by those who treat the individual in purely individualistic fashion as a physiological and anatomical mechanism. But, in economics, the individual is a participant in transactions and a member of going concerns. Here is not so much his physiology, his "glands" and "brain patterns" that interest us—it is whether he performs, forbears or avoids, as a whole personality. The recent "behaviorism" has done much in child psychology and advertising, but not much in the behaviorism of going concerns. Here is that the will means individual and collective action in three physical and economic dimensions—performance, avoidance, forbearance—a kind of behavior unknown to any

> physical science and only incipient in the biological sciences, but capable of being analyzed and measured like electricity or gravity, in terms peculiar to itself (Commons 1934, pp. 640–41).

Commons's argument for the inevitability of metaphysical elements in social science, an idea which had already been developed by Knight in the early 1920s (Asso and Fiorito 2003), deserves some attention. Commons held that motive is as indispensable to economics as force to mechanics. For both, positivistic philosophy suggested that concepts such as these were suspect since they were not observable. Physical scientists succeeded in "purifying" science, not by denying the metaphysical notions of force or energy, but by redefining them as "variable dimensions of motions." Likewise, Commons argued, the social scientist cannot dispose of the problem of human volition by expunging it from the realm of science, but must deal scientifically with it by analyzing and measuring its uniformities as they manifest themselves in the several types of transactions:

> In getting away from the will because it is "metaphysical" the "behaviorists" jump over from the external behavior of the will to the internal behavior of metabolism, thinking that they have left no metaphysical gap between the will as one kind of behavior and physiology as a supposed similar kind of behavior. But there is an impassable gap. They are not continuous (Commons 1934, p. 641).

Insofar as the "determinism versus volontarism" dichotomy—obviously an oversimplification—bears any meaning to the present discussion, we can affirm that Commons definitely trod closer to the volountarist path. As emblematically shown by the passages quoted above, Commons's continuous reference to the "will," together with his insistence on "volition" as the distinguishing feature of the social sciences, clearly distance him from the behavioristic mockery of teleologism and human purposiveness which we have found in authors like Copeland or Frank.[27]

Also Clark had critical attitudes towards behaviorism. In 1918, for example, Clark devoted a two-part essay to "Economics and Modern Psychology" where he discussed the role of habits in non-behavioristic terms. Instead of discarding human purposiveness and reducing habits to recurrent response to external stimuli, Clark saw habit formation as originally stemming from conscious deliberation and developed in response to information and decision costs and to the general conditions of the business environment.[28] An interesting thing that emerged from our archival research, is that Clark conceived his approach to the study of human behavior as complementary to Carleton Parker's. As Clark himself wrote in a letter to a French colleague referring to Parker's 1918 paper:

[27] Such a divergence in view becomes manifest in Copeland's rather critical review of Commons's *Institutional Economics* (Copeland 1936).

[28] According to Hodgson (1997), Clark's 1918 criticism of the neoclassical conception of rationality adumbrates Simon's concept of satisfacing behavior. In this connection, it is worth noting that Simon's theses on behavior in conditions of bounded rationality explicitly claim, although somewhat shyly, an institutionalist ascendancy. See Simons (1982, p. 718).

> I think this is significant, and not because of the particular headings chosen under which to catalogue the instincts, but because of the method of treating economic problems which is suggested: e. g. the study of labor troubles as results of balked dispositions. The results of such study might be important. Rationalism says: "To satisfy a man, give him what he demands." The theory of Professor Parker says: "To satisfy a man, study him to see if his demand (perhaps in itself impracticable to gratify) is not the expression of an underlying discontent due to causes which the man himself does not know and could not formulate in words." Professor Parker and myself, working independently, have treated two complementary aspects of human nature: he the innate qualities, I the modifying elements of the environment.[29]

A more insightful comment on behaviorism is to be found in Clark's long survey on "Recent Developments in Economics" which was published in 1927. There, Clark expressed his skepticism toward any attempt to draw upon behaviorism for the construction of a more psychologically grounded theory of economic behavior:

> Another psychological trend, that of behaviorism, has not so much furnished tools for economic study as had a contagious influence upon it, causing many to think of it as the "study of economic behavior." In this field the behaviorist position virtually gives the economist *carte blanche* to construct his own psychology so long as it rests on observation of actual economic life, and, presumably, so long as it is not inconsistent with anything already learned by psychologists in their more elemental field of study.

Also the behaviorist denial of introspection together with the renovated positivistic emphasis on objective observation, appeared to Clark inadmissible when dealing with the complexities of human nature: desires and emotions or "affective states," he put it, "are themselves forms of implicit behavior. Yet are not economic behavior, in the usual sense of overt acts." This led Clark to argue that the social scientist cannot gain a scientific understanding of consciousness through inference from observed behavior alone. "Consequently"—he concluded—"the observation of economic behavior alone is not the whole story, even from a behavioristic standpoint" (Clark 1927, pp. 282–83).

But behaviorism not only "divided" institutionalists. The success of the new psychological doctrine had also a deep impact on the evolution of the institutionalist research agenda. Beginning from the mid-1920s, quantitative research began to acquire increasing relevance within the movement and institutionalism was gradually pushed towards empiricism (Hodgson 1999; Mirowski 1987). To many institutionalists the systematic observation of human behavior in the form of social statistics appeared to be the primary prerequisite for social science—and in particular for economics—in order to "catch up" with their natural counterparts. The most outspoken endorser of this agenda was Wesley C. Mitchell. His plea for a quantitative approach to economic theory became one of the main recurrent themes in many of the institutionalist methodological

[29] John Maurice Clark to Roche-Agussol, September 14, 1918. Joseph Dorfman Papers, Rare Book and Manuscript Library, Columbia University.

writings of the mid 1920s.[30] Such a shift in emphasis had also important consequences for the external "image" of institutionalism. As noted by Mirowski, "[l]argely because of Mitchell, by mid-century the institutionalist school was perceived as promoting a species of naive empiricism without any theory" (Mirowski 1987, p. 1028). Institutionalism soon became associated with naive "inductivism."[31] Mitchell's contention that "our whole apparatus of reasoning on the basis of utilities and disutilities ... in the individual economy, will drop out of sight in the work of the quantitative analyst" (Mitchell 1925, p. 5) was attacked by early econometricians on the ground that it was "quite possible to subject the hypothesis of rational behavior to a concrete statistical test" (Schultz 1937, p. 346).

The dispute over the correct method in quantitative analysis reached its apex in 1947 with Koopmans's famous article "Measurement without Theory," which derided Mitchell and Burns for being stuck at the old "Kepler stage" of empirical inquiry (Koopmans 1947). As Morgan (1990, p. 56) correctly observes, the debate of the late 1940s showed the clearly irreconcilable differences between Mitchell's statistical program and that of the econometricians and, we add, marked an important step in the declining path of institutionalism.

One final product of these methodological controversies was the emergence, during the late 1930s and early 1940s, of a special version of institutionalism, based on the contribution of Clarence Ayres. We have already encountered the name of Ayres, both as a critic of instinct theory and as an enthusiastic endorser of behaviorism. In his two later works on *The Problem of Economic Order* and *The Theory of Economic Progress* (Ayres 1938, 1944),[32] Ayres developed a distinct approach to the study of human behavior.

No attempt is made here to give a comprehensive view of Ayres's theory of human nature. His work is of interest in the present discussion in so far as it provides the most significant example of a particular tendency in postwar institutionalism. In spite of its inner lack of homogeneity, Ayres believed that

[30] Mitchell's own research agenda changed considerably over time, becoming more and more devoted to the statistical analysis of business cycles at the expense of the more "psychologically" oriented study of human behavior that had characterized its earlier years. Such a shift in Mitchell's interest had been pointed out by Robert Lynd, Mitchell's friend and colleague at Columbia, as early as in 1939. In a letter to Mitchell, Lynd observed:

> There seems to me to be two Wesley Mitchells: the one the analyst of business cycles, stretched to the demands of a heroic task and eager to compete in a world which interrupts one's effort by many outside calls; and the other, now largely submerged by the former save as it comes out at conference at the Council and elsewhere, a man of wide awareness of human behavior and the potentialities of its study" (Lynd to Mitchell, New York, April 22, 1939 in Fiorito 2000).

Significantly, in his reply, Mitchell denied any discontinuity in his work, and placed on the same ground quantitative analysis and his previous studies of economic behavior: "I do not see any important difference between the close analysis of business cycles in which I am engaged and the study of human behavior under the cultural conditions characteristic of the United States or Western Europe since the Civil War" (Mitchell to Lynd, New York, April 24, 1939, in Fiorito 2000).

[31] See, for instance, the famous critique by Robbins (1932, pp. 114–15).

[32] In what follows reference will be made to the second edition of the *Theory of Economic Progress* (Ayres 1962).

the early institutional economists were all "resolute behaviorists" (Ayres 1962, p. 90). Ayres perceived his own brand of institutionalism as a special blend of Veblen's social psychology and Dewey's philosophy. Both these great figures in their own way laid considerable stress on innate tendencies or propensities in human nature: very explicitly by Veblen, with his theory of instincts discussed above; more subtly by Dewey, who invoked an "underground world" of surging impulses by which human behavior was conditioned.[33] By contrast, Ayres denied any role to instincts, urges, propensities, and so on, and firmly maintained that human personality was not inscribed on the mind of man at birth but was formed through experience and learning.

The social psychology underlying Ayres's analysis may be defined *cultural behaviorism*. Ayres's starting point was that there is "no such thing as the original nature of man" (1952, p. 332). Human nature is purely and wholly a cultural product. Moreover, culture itself must be considered, from the standpoint of scientific analysis and interpretation, as a thing *sui generis*; as a class of events and processes that behaves in terms of its own principles and laws and which consequently can be explained only in terms of its own elements and processes. Thus culture is not something shaped and renewed by human aspiration but rather a "unique phenomenon ... self-explaining and self-perpetuating" (Ayres 1962, p. 95) while every cultural phenomenon was "derived from some other cultural phenomenon and can only be explained in terms of other cultural phenomenon" (Ayres 1962, p. 96).

The next step for Ayres was to expunge the "individual" from his analysis. In explaining social phenomena, Ayres combined an extreme form of holistic ontology with a radical behavioristic view of human conduct. As Ayres himself emphasized, "this is a universe of discourse to which the concept 'individual' is simply irrelevant" (Ayres 1952, p. 41). Likewise, any concern for motivations and purposes was ruled out as a "holdover" concern with "mindstuff," objectionable not so much for its "fatuousness" but for its "subjectivity" (Ayres 1962, pp. 73, 95). The result, which does not require any detailed discussion here, was a theory of social evolution where the individual, both as a biological and social entity, dissolves into "culture," and institutional change is seen as the result of the conflict between the impersonal forces lying behind technological advance and the "backward-looking" structures of society (Hodgson 1999; Rutherford 1994; Seckler 1975).

As a behaviorist, Ayres saw no merit in a social psychology that concerns itself with exploring the psychological basis of behavior and its innate drives and urges, and with the mechanisms, processes, and potential of personality in terms other than the plastic field of culture. The alternative he constructed was based on a radical version of behaviorism in which, as Hodgson rightly observed, "[t]he human mind was seen as an empty vessel or *tabula rasa*, to be filled by the culture and environment in which it was situated" (Hodgson 1999, p. 109). In Ayres's system the accumulated knowledge, the organized beliefs, and the way of life prescribed by a culture determines not only all other aspects of human cognition and social behavior but also the dynamics of culture itself.

[33] See, especially, Dewey (1922).

## V. CONCLUSIONS

This paper has documented the rise and fall of instinct theory among institutional economists and their subsequent move toward behaviorism. The starting point of our reconstruction has been Veblen's *The Instinct of Workmanship*, the work which best epitomizes his attempt to blend into a comprehensive theory both the social and biological aspects of human agency. Veblen defined instincts as hereditary universal ends of action. By linking instincts to habits and, in turn, by seeing institutions as stemming from the socialization of habitual behavior, he was able to attenuate the biological implication of his account of human behavior.

Following his lead, other institutionalists developed instinct-based theories of human behavior. Carleton Parker opted for a more deterministic view of human instincts where virtually no role was assigned to social and cultural influences. Lionel Edie, more consistent with Veblen's formulation, presented an articulated discussion of the relations between instincts, habits, and the process of human deliberative efforts to satisfy, and react to, inborn tendencies. Another group of Veblenian economists drew attention to the potential applications of instinct theory to the problems of the new industrial society. However, a group of more orthodox economists also spent some time discussing these methodological questions. Among them, Fisher and Taussig showed their reluctance to commit themselves to a single theory of human action and saw in instinct theory a powerful heuristic tool for the interpretation of human behavior in times of rapid economic and social changes.

Between the end of the 1910s and the mid 1920s, this doctrine came to be criticized for a number of reasons. Some authors pointed out its cumbersomeness and tautological weaknesses: the list of instincts, it was argued, had become almost as long as the varieties of behavior that were to be explained; others found it difficult to deal empirically with innate behavior patterns; more importantly, others believed that the role of institutions and social pressure in molding and directing human behavior were unduly neglected. Again, any effort to draw sharp lines between conflicting schools of thought brings about rather unsatisfactory results. In fact, most of these criticisms were advanced from within the institutionalist camp. Mitchell, Ayres, Copeland and the "maverick institutionalist" Frank Knight, all played an active role in discrediting the attempt to infuse instinct psychology into economics.[34]

[34] In our historical journey we have encountered the name of Frank Knight several times: first, as a penetrating critic of instinct theory, then as an opponent of the institutionalist-behaviorist campaign led by Copeland, and finally as a lonely dissenter toward the ordinalist turn in neoclassical economics. Knight was not an institutionalist: he was not "sociologically" affiliated with the movement, and on more than one occasion he didn't hesitate to express his opposition toward institutionalism. Some commentators have observed that, despite their substantial differences in approach, there are nevertheless important points of convergence between Knight and the institutionalists. Interestingly, as Geoff Hodgson has recently pointed out, these convergences are rooted in their common criticisms of neoclassical economics and its methodological apparatus. Knight was in fact critical of the neoclassical assumptions that treated man as an isolate rational economic actor equipped with given preferences, although he believed they had a considerable heuristic and ethical value (Hodgson 2001). He was also critical of psychological utilitarism and ethical utilitarism, the first because it was essentially tautological, the second because it confused the "good" with the "pleasurable." Both Knight and the institutionalists were concerned about the dynamics of a rapidly changing economy

The crisis of instincts theory deprived institutionalists of powerful ammunition for their attacks on psychological hedonism. A viable alternative was found in the emerging behavioristic doctrine launched by J. Watson in 1913, whose appeal soon gained consensus among psychologists. In the early 1920s a behaviorist movement arose within institutional economics, led by people such as Copeland, Mitchell, Frank, Tugwell, and many others. Influenced by the pervading positivism of those years, it was asserted that economics and the social sciences should be reformulated along the lines of their natural counterparts in the hope that this would lead to progress on the institutionalist front. As our discussion has shown, they insisted in particular on the need for eschewing metaphysics—introspection—from economics, for interpreting human behavior mainly in terms of learned patterns of behavior, and for formulating behavioral laws that would serve for social control and could be tested empirically.

These ambitious projects were doomed to failure and, beginning roughly from the late 1930s, institutionalism began an irreversible declining path. The main point of this paper is that, in spite of Copeland's bold claims, such an alliance between behaviorism and institutionalism contributed to the latter's decline. With the so called "ordinalist turn" systematized in the 1930s by the work of the "Slutsky school," mainstream theorists were able to challenge institutionalists on their own methodological ground. By freeing marginal economics from psychological hedonism and by claiming that it could be based on observable behavior alone, they "crowded out" the institutionalists' attacks, together with their contention that only institutionalism could be the thoroughly scientific and testable approach to economics.

As to the "internal" history of institutionalism, we believe that behaviorism influenced the development of the movement at least in three respects. First, behaviorism further "divided" institutionalism, a school already heterogeneously composed, in the sense that not all the main figures endorsed the behavioristic campaign of the 1920s. Two different strands emerged within the movement (Seckler 1975): a more "scientistic" wing, led Copeland and Mitchell, and a more humanistic wing, generally adverse to behaviorism. As far as the latter is concerned, our analysis has briefly discussed the dissenting positions of Commons and John Maurice Clark. Secondly, behaviorism implied a growing concern among institutionalists for quantitative and empirical studies. In the eyes of their opponents, institutionalists appeared as mere "data collectors," eschewing theoretical considerations from economics. Thirdly, from the behavioristic climate

footnote 34 continued and were likewise attempting to answer the same question, namely, how to supplement and integrate traditional economic theory. This is not the proper place to discuss whether and to what extent Knight's positions were congruent and acceptable, but his presence as a protagonist in all these methodological debates seems to us to confirm what Buchanan had already noted a few years ago (1982, pp. xi–xii):

> As he himself acknowledged, and as many others have recognized, Frank Knight was essentially a critic ... His social "function" was that of exposing the fallacies, nonsense, and absurdities in what was passed off as sophisticated scientific discourse ... To Knight the task for economists (and for social philosophers) is not to be located at the extensive margins of "science." The task is to be located squarely at the level of elementary common sense.

of those years there emerged in the 1940s through the work of Clarence Ayres, a special brand of institutionalism where social evolution was seen as resulting from the struggle between the instrumental values of technology and the ceremonial values of change-resistant institutions. Ayres expunged from his analysis any reference to the biological determinants of human behavior, and opted for an extreme form of cultural determinism that drove institutionalism into the realm of "cultural anthropology." [35]

Ayres's greatest effort, *The Theory of Economic Progress*, was published in 1944, thirty years after Veblen's *The Instinct of Workmanship*. In three decades the institutionalist research program had undergone a profound transformation. Not only the idea of instinctive behavior—and more generally the analysis of the biological determinants of human behavior—had vanished from the institutionalist literature, but the new emphasis on culture and environment distanced institutionalism from psychology. In the Ayresian scheme, the sociocultural level of human interaction became a distinct, autonomous, and self-caused entity, while the idea of human nature (and its evolving psychological architecture) was rejected as a useful concept. A rather ironic epilogue for a school of thought that was born with the ambition of being based upon "modern" psychology.[36]

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[35] Reported in Ramson (1977). Interestingly, later in his career Ayres attempted a rather debatable reinterpretation of Veblen's instinct in cultural terms: "Clearly," Ayres wrote, "when he (Veblen) spoke of instincts, he had in mind culturally significant patterns of behavior which have persisted from the earliest known cultures to the present" (Ayres 1958, pp. 28–29).

[36] Moreover, as we learn from Rutherford (2000b, p. 300) "Ayres' effort to define institutionalism in terms of its instrumental/ceremonial dichotomy was, at the time, not particularly well received by other institutionalists," and this further contributed to the loss of unity of the movement as a sociological entity.

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