QUADERNI

Università degli Studi di Siena
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Human Nature and Economic Institutions Instinct Psychology, Behaviorism and the Development of American Institutionalism

n. 373 – Dicembre 2002

Abstract – This paper explores the evolution of the psychological foundation of institutional economics between the early XXc and the 1940s. The first part deals with the rise and fall of instinct psychology. Inspired by Veblen's taxonomy of instinctive behavior, several American economists attempted to build a viable alternative to psychological hedonism of neoclassical economics then only at its infancy. In this debate we show how instinct theory came to be applied to the field now as industrial psychology. The second part discusses some of the reasons why this methodological approach began to lose momentum among leading American institutionalists. In this section we also present the emergence of behaviorism in 1930s American economics and the different impact which it gained also within neoclassical economists. This paper particularly dwells upon the contributions of C. Parker, L. Edie, M. Copeland and F. Knight.

Keywords – American institutionalism; Behaviorism; Economics and psychology; Instincts; Veblen.

JEL classification – B25; B31; B41; B52.

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1. 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 – Fiorito 2002]. 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 [Cravens 1978; 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 [Cravens 1978; 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, 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. Quite interestingly, instinct theory was also viewed with some interest by more "orthodox" figures like Irving Fisher and Frank Taussig.

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

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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. With its bias 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 suitable models of inquiry and intervention for the postwar world.

In this connection, together with other writers, Malcolm Rutherford has considered the shift from instinct psychology to behaviorism as one of the main factors which 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 – applications 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, 298; Hodgson 1999; Lewin 1996].

The aim of this paper is to provide a reconstruction of the rise and fall of instinct theory among institutional economists and their *subsequent* – and partly *consequent* – move toward behavioristic psychology. 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. 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.

2.1. VEBLEN'S *THE INSTINCT OF WORKMANSHIP*

Our analysis of Veblen's instinct theory is mainly based on his *The Instinct of Workmanship and the State of the Industrial Arts* [Veblen 1914]. This for two main reasons. First of all because, as already commented by one writer [Tilman 1996, 74], the first portion of *The Instinct of Workmanship* contains what can be considered the most complete and consistent presentation of Veblen's psychological theory. Secondly, because Veblen's 1914 volume had a major impact on other institutionalists, triggering a series of

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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 such terms as "instinct" and "instinctive" had lost much of their appeal among scholars of the biological sciences. Nevertheless, he argued, institutional inquiries into the growth of habits and conventions were deeply "conditioned by the material environment and by *the innate and persistent propensities* of human nature." As to these propensities, since they are a product of "the give and take *of cultural growth*, no better designation than the time-worn 'instinct' is available." [Veblen 1914, 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 combine the biological aspects of human nature with the dynamics of cultural evolution. Veblen's use of the term "instinct," then, becomes an effort to build an analytical category for the understanding of human behavior.

Interpreting Veblen, an instinct may be defined as an a) unlearned, b) species-specific, c) goal-directed and d) organized pattern of behavior. Each of these four points requires some brief comments.

a) *Unlearned patterns of behavior*. According to Veblen, instincts are hereditary traits [Veblen 1914, 13], belonging to the innate and unlearned endowment of human nature. Nevertheless Veblen insisted that every instinctive proclivity is subject to a process of enforcement and modification through habitual response to its incitement. When dealing with the instinct of workmanship, for instance, Veblen asserted that prolonged experience with workmanlike occupations, implying the individual's alertness towards workmanlike phenomena, "carries with it habitual thinking in the terms in which the logic of workmanship runs." [Veblen 1914, 53-54]. This point will be taken up below.

b) *Species-specific patterns of behavior.* Veblen believed in the race-specificity of instinctive dispositions: "No doubt the several racial stocks differ very appreciably in this respect" [Veblen 1914, 14]. Accordingly, Veblen pointed out that the extreme diversity of native characters that is to be found among European peoples – both in terms of physical traits and instinctive endowments –was in all probability due to their being made up of hybrids of different ethnic types [Veblen 1914, 15]. It should be noted, however, that in spite of such race-specificity of instincts, Veblen held that "the complement of instincts native to the several races is after all of much the same kind, comprising substantially the same ends" [Veblen 1914, 24].

c) *Goal-directed patterns of behavior.* For Veblen instincts are goal-directed patterns of behavior, in the sense that each instinct is directed to achieve ends that are teleological in nature. As he put it:

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

> "Instinctive action is teleological, consciously so, and the teleological scope and aim of each instinctive propensity differs characteristically from all the rest. The several instincts are teleological categories, and are, in colloquial usage, distinguished and classed on the ground of their teleological content." [Veblen 1914, 3-4].

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 and has been extensively dealt with by several interpreters [Tilman 1996; Leathers 1990, Rutherford 1984] and it 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, 31]. Two other instincts which fall 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 of knowledge for other than pragmatic reasons.

d) *Organized patterns of behavior.* This last point is the most controversial and deserves special attention. Veblen's instincts are "organized" patterns of action; since they involve human consciousness and intelligence: "As the expression is here understood, all instinctive action is intelligent in some degree; though the degree in which intelligence is engaged may vary widely from one instinctive disposition to another […]" [Veblen 1914, 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. However, there is no sharp line of demarcation between instincts and tropisms since, in Veblen's words, "[b]y insensible graduation the lower (less complex and deliberate) instinctive activities merge into the class of unmistakable tropismatic sensibilities, without its being practicable to determine by any secure test where the one category should be declared to end and the other to begin" [Veblen 1914, 5].

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, 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 ever-lasting search for efficient 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, 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, 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 assume away and somewhat reduce the biological implications of instincts. 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 which gives rise to habits, which in turn become incorporated into a body of culture and originate institutions, social conventions and human enterprises. In this connection, Dorothy Ross [1991] has correctly argued that Veblen's instincts are not single heritable traits but, at most, stable dispositions shaped and passed by cultural experience[2].

Therefore Veblen's instinct psychology was instrumental in finding an explanation of human behavior that could take into account both the innate propensities of man and the influence exercised on human nature by his material and cultural environment [Rutherford 1984]. 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, for instance, Veblen seems to affirm 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, 1]. Other major shortcomings concern Veblen's lack of precision and consistency

[2] In a similar vein, Rick Tilman [1996] has affirmed that in his later writing – such as *The Instinct of Workmanship* – what Veblen considers as instincts "are mostly learned behavior and are the consequence of environmental conditioning," whereas in Veblen's earlier writing instincts entailed stronger hereditarian and biological implications.

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. Most interestingly, in the years which 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 two paragraphs are devoted to an analysis of their contributions.

2.2. INSTINCT THEORY AND ECONOMIC BEHAVIOR: PARKER AND EDIE

Among those economists 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 1972 (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*.

In a typical institutionalist fashion, Parker attacked the "gentle parody in motive theorizing" of orthodox economics, mentioning, as notable exceptions, "the remarkable series of books by Veblen, the articles and criticism of Mitchell and Patten, and the most significant small book by Taussig entitled *Investors and Money Makers*." [Parker 1972 (1918), 129-131]. Parker started with a biological definition of instincts which was directly borrowed from McDougall's. Economic behavior, he pointed out, could be viewed as a response 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 1972 (1920), 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. Parker's main argument was that modern industrial society was bound to frustrate worker's 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 unlearned, and to exist throughout the human species [Parker 1972 (1918), 136; 141]. 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 cited repeatedly Veblen as a very influential source[3], the differences between the two were quite substantial. 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 1972 (1920), 138: 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 like: "[a] certain environment can habituate man to specialization in gratification of a single or pair of instincts." [Parker 1972 (1920), 155].

Interestingly, such a deterministic and unqualified version of instinct theory, attracted the criticism of Frank Fetter and the leading institutionalist Wesley Clair Mitchell. According to the latter, Parker had identified a great number of complex behavioral characteristics as inherited instincts. Without any experimental evidence, Parker had found that *all* human action directly or indirectly expresses one of these instincts. But in so doing, Mitchell accused, Parker had unduly neglected the role of the institutional factor in shaping human behavior. The institutional factor included "the socially prevalent habits which in any given group standardize the behavior of individual members. For the social sciences this factor in behavior is of peculiar importance, since it makes possible cumulative change. So far as these sciences can contribute to progress, they find their opportunity in purposive, intelligent control over institutions."

Frank Fetter followed Mitchell almost literally, raising the rhetorical question as to whether "the author has not greatly exaggerated the biological elements in the analysis and underestimated the cultural or educational elements." Like Mitchell, Fetter emphasized the necessity of recognizing and acknowledging the role of social institutions in shaping human conduct. In particular 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 fallacies of the educational system rather than in the biological nature of men [Fetter 1918, 235]. This line of criticism will be one of the recurrent themes in the anti instincts campaign of the early 1920s.

Lionel D. Edie is another institutionalist economist 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. He described men as "bundles of tendencies to act" and defined these inherent human traits as "instinctive tendencies." The

"economic man" – he observed – is nothing but "this blended, integrated, array of original human tendencies" [Edie 1922, 40]. Edie distinguished two different categories of instincts: those which play 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. Edie defined instincts by listing their main characteristics. First of all, he wrote, instincts are innate, even though he makes no reference to their race specificity. Other important features are their dynamic character, their pliability, and their being so closely interrelated to be considered an integrated whole [Edie 1922, 39]. According to Edie, instinctive tendencies are dynamic in a twofold sense: in terms of the shaping of psychological motivations "[t]hey push and urge and drive men from within"; and in terms of their direct influence upon economic and industrial growth, since they are a main source of economic change and progress. Instincts, in fact, are among the incentives "behind the hundreds of thousands of inventions of industry, behind the explorations which have opened the world to commerce, behind the gigantic business combinations and the myriads of lesser enterprises" [Edie 1922, 5]. In one word, they can be considered as staying "behind the whole economic organization" since they affect the extent, the structure, the organization and the output of a market economy.

However, the most original part of Edie's treatment of instincts – and the one which represents a significant advance with respect to Veblen's – is the analysis of their interactions with the external environment. According to Edie, the influence of instincts is mediated by social intercourse through habit, imitation, sympathy and suggestion [Edie 1922, 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, 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 which 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, 45].

[3] Interestingly, Parker's *The Casual Laborer and Other Essays*, posthumously published in 1920, was dedicated to

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, 67]. In such a case, when the conflict between the stable instincts and the evolving institutions cannot be settled – this was Edie's conclusion – 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 a blend of inner traits and acquired experience and 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[4]. Compared to Veblen's, however, Edie's instinct theory places more stress 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, 67].

2.3. INSTINCT PSYCHOLOGY AND THE CHANGING INDUSTRIAL ORDER: TAUSSIG, TEAD AND MAROT

Between 1915 and 1924 a number of studies were published on the possible applications of instinct theory to the world of industry[5]. 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. Most authors shared the ambition that their research on instinct theory and industrial psychology could 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 which directly influenced economic decisions and could not readily fit into the rubrics of traditional economic theory. Thus, motives, instincts, different forms of intangible assets began to acquire the status of "guiding principles" for a better understanding of human

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Thorstein Veblen.

[4] "The original tendencies are given by heredity, and all subsequent modification is acquired in the life of the individual. This process of modification tends to attach the several primary forces of human nature to certain objects, institutions, personal titles, and causes in the outside world. In consequence, whenever the outside factor is present as a stimulus, or when the memory or idea of it is brought to mind, it tends to call into force the corresponding group of instincts, emotions, habits etc., which have been built up by experience around it." [Edie 1922, 46].

[5] Fitt [1922], Kelly [1920], Marot [1918], Muscio [1920], Myers [1921], Taussig [1915], Tead [1918], Wolfe [1924]. This paragraph provides a general survey of their subject, even though closer analysis is restricted to Taussig, Tead and Marot.

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[6], 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 all tended to disappear in a large and possibly growing proportion of men. On the contrary, some argued that the modern corporation was driven by instincts which were 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 "orthodox" economists, Irving Fisher expressed words of praise for this new wave of investigations into the fundamental motives of industry and attempted to apply instinct psychology to the analysis of contemporary labor problems. In a presidential address read before the American Association for Labor Legislation, Fisher 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. Addressing his fellow associates on the creative and other impulses emphasized by Wolf, Marot and Tead, Fisher concluded his talk on the economist in public service with the following remarks: "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, 17-18].

A few years before, Frank Taussig [1915] had acknowledged that a 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 trade, 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 to study the genesis and growth of the different kind of instincts. Some of them, in fact, had an irrational foundation; others were extremely volatile, without any apparent purpose, almost whimsical; finally, there were also instincts which were more spontaneously directed toward promising experiments in the spirit of pure scientific research.

According to Taussig's own list, the driving forces which lay behind the growth of the modern corporation were quite distant from money making 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.

On these grounds, Taussig believed that the growth prospects of the American economy ultimately depended on what the businessman did on behalf of the scientific management of this plethora of often contradictory and opposing instincts. In a Schumpeterian fashion, the business man ought to develop an instinct of selection, indicating criteria of priority among the alternative, potential applications of the instinct of contrivance. The same procedure ought to be followed by State agencies whose instinct of public service was entirely lacking in other agents.

Taussig also feared the very impersonal and mechanical nature of the relationship between employers and employees. Reforms in the wage system and schemes for job maintenance had done little to increase the instinct of contrivance and the interests of the working class for the final product. Profit sharing schemes had provided little relief for the real conditions of the workers, the fear of unemployment together with the desire to establish stronger connections with the final product of their job. It was on these topics that Veblen's colleague at the New School for Social Research, Ordway Tead, offered the most systematic treatment.

Tead's book raised big questions: his primary objective was to investigate the causal relation between instincts and conduct in industry in order to measure how the evolution of individual motives had influenced the recent changes of the industrial environment. Indeed, contemporary critics observed that Tead's venture in the field of human motivations remained extremely vague and superficial, almost tautological. Within the institutionalist movement, Leon Ardzrooni blatantly defined it "the economics of the social uplift": Tead had merely provided a new catalogue of instincts, while their connections to economic phenomena remained at the level of an amateurish and ill-advised adventure.

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 him, through reference to imitation and habits, to take distance from Parker's more deterministic view of human instincts. In the opening pages of his book, Tead cautioned his readers that "we must not […] assume that conduct is the manifestation of a pure and uncomplicated instinct; that instincts dictate and control conduct to the exclusion of all other factors; that the promptings of instinct offer a safe

[6] Referring to Veblen's *Instinct of Workmanship*, Taussig wrote: "a brilliant and original book, like everything that

guide to conduct; or that the full satisfaction of an instinct is either necessary or desirable." [Tead 1918, 6]. However, what is more illuminating for our purposes is the applied side of Tead's story. Despite our agreement with the main points of Ardzrooni's destructive review, it seems to us worth mentioning the fact that Tead intuitively established interesting connections between instinct theory and its application to modern industrial life. According to Tead, such connections served to understand and explain

a) the nature of industrial growth
b) the nature of industrial innovations
c) the real working of products markets
d) the new phenomena of social and industrial unrest.

a) Growth: The study of instincts is helpful to calculate individual reactions and put the industrial process in a proper dynamic perspective. Structural adjustment policies and suggestions for industrial reform were more effective if the nature of human conduct was more thoroughly considered. For instance, expectations with regard to future industrial activities could be more easily understood and adapted once a more scientific knowledge of human nature was developed. Knowledge of instincts more easily provided a sound basis for "prophesying the course which events will take under given circumstances."

b) Innovations. Delight in creation and a sense of proprietorship over the things created offered an explanation for the genesis of most industrial innovations. Their suppression, Tead added, was a pre-requisite of industrial stagnation and social revolt. Instinct theory thus became a powerful tool for criticizing recent methods of scientific management of industrial concerns, beginning with Taylorism and all its different ramifications. In a corporate society based on the excessive subdivision of productive tasks, all instincts of creative planning are taken away from workers, and each operation becomes meaningless "with no craftsmanship and no joy."

c) Analysis of markets. Tead put strong 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, suggestions to panic and sensitiveness to leadership arise as agents instinctively seek for self protection and self assurance from the environmental order. 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, release forces which 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, 9]. Thus, herd

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comes from his pen." [Taussig 1915, 85fn].

instincts had a very dynamic impact on markets, since they were unpredictable and erratic in character and tended to vary with the extent of protection needed. Consequently, their relevance required, Tead suggested, a profound reform of the labor market since mechanisms of protection and risk management should be considered as a form of public good. In the postwar world, they might even require the formation of a plurality of sovereign centers.

d) Social reform. Phenomena of industrial unrest, social injustice and absence of industrial democracy were directly linked by Tead to the suppression and sublimation of individual energies and attitudes. This occurred with greater frequency whenever relations between businessmen and manual workers became impersonal and routinized[7].

In Marot's book instinct theory was generally applied to analyze problems of social reform of the labor market. In the introductory chapters, 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 which 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 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, 32].

Marot believed that future economic prospects depended on the growing interdependence of different industrial interests. The desire on the part of the labor force to participate in the development of production was a basic ingredient of any plans for democratic industrial reconstruction. While Marot's book always remained extremely vague and naïve in designing new mechanisms and practical reforms in education, the most interesting part regarded her discussion of alternative forms of industrial relations. In this respect, models of trade union decentralization were to be preferred, since they strengthened an instinct of responsibility in the worker and his representatives. This instinct of responsibility enhanced the sense of opportunity and desire on the part of the labor force to participate in the development of production. This was a viable third way between business hegemony and state socialism.

[7] In 1919 Commons wrote a favourable review of Tead's book, noting however his exclusive consideration of phenomena of suppression and explosion at the expense of other equally important tendencies of repression and control which characterized the modern capitalist system.

In his review of Marot's book, John Commons seemed to agree that capitalists were compelled to pay more attention to the creative impulse of workers and to establish stronger connections between labor management, engineering, salesmanship and finance. On these grounds, both welfare schemes and scientific management did not provide the final answer and – Commons agreed – economics was bound to test new solutions to labor education and organization [Commons 1919, 316].

3.1 THE ANTI-INSTINCT REVOLT IN ECONOMICS

In December 1918, one of the young dissenters of American economics, Walton H. Hamilton, proposed a reformulation of the discipline along "institutionalist" lines. In his "institutionalist manifesto" [Dorfman 1974, Rutherford 2000a; 2000b, Hodgson 2001], Hamilton preached for a new economic theory whose relevance should be extended to the problems of social control and whose foundations should be based upon an acceptable theory of human behavior. In this connection, subjective utility was a misleading concept in order to explain economic behavior and the way it changed in an evolutionary perspective. Hamilton resolutely condemned "[t]he extreme individualism, rationality, and utilitarism which animated eighteenth century thought" and which, in his opinion, still found expression in contemporary neoclassical economics. In its stead – he argued – the social scientist ought to formulate a new theory of economic motivations which could find useful inspiration in the most recent achievements of modern social psychology. As Hamilton put it:

> "Where it [neoclassical economics] fails, institutional economics must strive for success. It must find the roots of activity in instinct, impulse, and other qualities of human nature; it must recognize that economy forbids the satisfaction of all instincts and yields a dignified place to reason; it must discern in the variety of institutional situations impinging upon individuals the chief sources of difference in the content of their behavior; and it must take account of the limitations imposed by past activity upon the flexibility with which one can act in future" [Hamilton 1919].

Hamilton's argument for an economics based on modern psychological foundations requires some comment. As noted by Hodgson [1999; 2001] and as we have already shown, 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. Veblen had drawn extensively from instinct literature since his early methodological essays[8] and his works – especially the 1914 volume – had a considerable impact on the institutionalist citadel. 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

[8] See Tilman [1996] for an insightful and well documented analysis of the doctrinal roots of Veblen's psychology.

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 "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 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 instinct as mere physiological traits of human nature devoid of any social and cultural content [Mitchell 1914, 22][10]. In 1917, in his posthumously published *Trade Unionism in the United States*, Robert F. Hoxie strongly criticized Veblen's conception of human nature for placing too much emphasis upon inborn tendencies as a determinant of behavior and for not taking into adequate consideration the human ability to interact with the economic environment: "The individual, according to Veblen," – he argued – "cannot react on this environment; he is not a center of force. But cannot we do something to change this environment by education, shop arrangements, etc.? Again, there are no such rigid economic environments and disciplines. There is much more social interaction than it is supposed." [Hoxie 1916, 367].

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 Clarence Ayres and Morris A. Copeland together with the economist who was to become the father of the first Chicago school, 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 be surely 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-

[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, 21].

[10] In this connection, in 1924 A. B. Wolfe pointed out that "[M]itchell had as early as in 1914 looked to behavioristic psychology as a promising basis for economics as a science of behavior" [Wolfe 1924, 472].

[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. Kantor, a psychologist at Chicago and then at Indiana University, elaborated in 1920 upon Dunlap's objections to the teleological nature of instinct theory. Kantor was willing to accept reflexes as part of human behavior, but so-called instinctive behavior, he insisted, 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]. As far as Knight is concerned, in his critique of instinct theory he does not refer to Kantor's works. Considering Knight's strong concerns about social psychology, however, it seems rather plausible that the two men had met by the late 1910s, when their presence overlapped at the University of Chicago.

> general and the equally meaningless hypothesis of a separate instinct for every possible act" [Knight (1922) 1935c].

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. "It is not practically helpful" – as he wrote in another essay – "to be told that some one of the possibilities of a situation will eventuate, though it may have a power, somewhat difficult to account for, of satisfying – after the event – a certain type of craving for a reason why" [Knight (1924) 1935c, 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, 561][13].

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. 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, 565: emphasis added]. Ayres' 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, 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" – he continued – "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) 1935c, 248]. However

[13] Copeland too wrote very skeptical words about the scientific value of recent accomplishments by the economics of instincts: "The use of instincts as a standard of socio-economic appraisal is suggested by several writers. But no two are agreed as to what instincts man possesses, still less as to what constitutes expression and what 'bulking;' and some hold a view of instincts which offers little basis for appraisal. Here too, then, we find that the psychological theories, however attractive in the abstract, are hopelessly ambiguous when it comes to any concrete application on which there

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, 155].

A few more words, finally, should be spent on Copeland's criticism of instinct theory which contains some elements of originality as compared to Ayres' 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: emphasis in original].

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

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is not already general agreement, and are lacking in the objectivity and definiteness to which science aspires." [Copeland 1924, 128].

behavioristic climate of the mid 1920s and served as basis for his later contributions in the field of economic methodology (see especially Copeland 1924 and 1927).

3.2 BEHAVIORISM ENCOUNTERS INSTITUTIONAL ECONOMICS

At the time that Hamilton raised his plea for a closer "cross-fertilization" between modern psychology and economic theory, several economists, mainly sympathetic with the institutionalist perspective, had already expressed, or were about to express, skeptical observations about the possibility of building a theory of human agency on the notion of instinct. It is thus not surprising that at the beginning of the 1920s, many of them turned their attention to a new approach in psychology, namely behaviorism, which was thought to undermine the validity of the instinct doctrine.

Launched in 1913 by John B. Watson's much celebrated series of lectures at Columbia University [Watson 1913], 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 [Wozniak 1994]. 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.

In general terms, the behaviorists believed that human behavior could be explained entirely in terms of reflexes, stimulus-response associations, and the effects of reinforcers upon them. "Mental" expressions like desires, goals, intentions and so on were entirely excluded. The contrast with instinct theorists was thus quite evident: while the former sought to study human conduct by correlating different kinds of behavior to an instinct that was supposed to "explain" them, behaviorists avoided explanation based on introspection, emphasizing the role of environmental conditioning and learned – rather than innate – response patterns.

In psychology, the transition from instinct theory to behaviorism – albeit gradual and contrasted by people like McDougall [1924] – was completed by the mid 1920s. As remarked by Hodgson, "[w]ith the publication by Watson of *Behaviorism* in 1924 a complete break was made with the idea of instinctive behavior in human beings. Just thirty years after the heyday of William James, the concept of instinct had virtually disappeared from American psychology." [Hodgson 1999, 103].

At the same time that instinct theory was losing his 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[14].

Among the leading institutionalists Rexford G. Tugwell was perhaps the first to express his approval of the new psychological approach. According to Tugwell, the increasing demand for data collection and

[14] The victory of behaviorism over alternative psychological methods in the interwar years was recognized by Schumpeter [1954 797-798] who wrote that "American economists have shown more interest in the programmatic pronouncements of behaviorists than they have in any other of the developments in psychology."

empirical manipulation of statistical series required a drastic "philosophical" change. Empiricists in the social sciences could not derive their practices from methods employed by physical scientists. Instead, they had to content themselves with relatively coarse manipulations having discernable effects on aggregate behavior. In this regard Tugwell wrote that "the devices of the behaviorists have been useful in the sense that we now have the facts which provide a significant nucleus for others and which will grow into a later, more complete, body of truth" [Tugwell 1922, 332]. Moreover, he added, behaviorism was quite instrumental to a new scientific rationale of government intervention, which the new breed of economists "in public service" was eager to promote in the postwar world. In fact behaviorism was very disturbing to laissez faire and the invisible hand, precisely because it called into question "what is meant by saying that man pursues his own gain and how it is that he accomplishes in this way the social good he is credited with" [Tugwell 1922, 339]. Similarly, in 1924, A. B. Wolfe wrote that behaviorism offered "a promise of a scientific basis for an understanding of economic motivations" [Wolfe 1924, 472] and declared that "a progressive understanding of mechanistic behaviorism is necessary as part of the essential data foundation of even a purely descriptive economics." [Wolfe 1924, 466].

The following year, in his famous presidential address on "Quantitative Analysis in Economic Theory," W. C. Mitchell followed Tugwell's and Wolfe's suggestions and embraced enthusiastically behavioristic psychology. While discussing the pros and cons of experimentalism, Mitchell dwelt upon the difficulty of carrying out neutral experiments in the social sciences. Such difficulty seemed to him almost insuperable, as long as economists and social scientists stuck to the old, unchangeable conceptions of human nature and motivations. Quite to the contrary, he wrote, "the behavioristic concept promises to diminish this handicap under which economics and its sister sciences have labored. For we can try experiments upon group behavior. Indeed we are already trying such experiments" [Mitchell 1925, 8].

Among institutional economists, however, the most outspoken and resolute endorser of behaviorism was undoubtedly Morris A. Copeland. In a series of papers which were published between 1925 and 1931, Copeland established strong scientific connections between behaviorism and institutionalism. Such an alliance, he wrote, was to be based on their common concern to adhere strictly to the following two canons: "(1) that they shall be consistent with hypotheses in other fields, especially with the natural-evolutionary hypotheses in geology and general biology; (2) that they shall leave the door open to the solution of all psychological problems by methods of scientific observation and scientific reasoning" [Copeland 1930, 13][15].

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

[15] Six years later, in a similar fashion, Clarence Ayres commented: "In short, institutions means to the institutionalists precisely what behavior means to the behaviorists, and the reason for this is not that the institutional economists have made use of any specific of the psychological behaviorists but, rather, that the two movements are parallel and coincident, as the two sciences have always been." [Ayres 1936, 235].

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-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[16] – 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, 641: emphasis added].

Other institutionalists insisted on the possibilities 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."[17] These aspects will be dealt with in the next paragraph.

3.3 BEHAVIORISM AS THE INSTITUTIONALISTS SAW IT[18]

Even among the psychologists who identified themselves as behaviorists, agreement as to its meaning and scientific usefulness was by no means unanimous [Buckley 1989; Mills 1998; O'Donnell 1985; Wozniak (Ed.) 1994] [19]. Similar divisions existed among the economists who adopted a behavioristic perspective to the study of economic decisions. In what follows, however, we make an attempt to define the behaviorist programme in economics or, rather, the common themes as they were presented in the literature. As already remarked, Morris A. Copeland, more than anybody else, made a systematic treatment of

[16] For a brief evaluation of Frank's contributions to economics see Dorfman [1959, V, 497-502].
[17] M. A. Copeland to E. Burns, November 14, 1930. Copeland Papers, Rare Book and Manuscript Library, Columbia University.
[18] This paragraph draws heavily upon Asso-Fiorito [2002].
[19] Although detailed discussion of the different wings of behaviorism in the 1920s is beyond the scope of this article, it is worth pointing out that disagreements typically revolved around four issues: a) the possibility of achieving a complete explanation of behavior in terms of the principles of nervous function; b) rejection of any special role for the central nervous system in the organization of behavior; c) the relation of acquired to hereditary mechanisms (the nature of instinct); and d) the role of mental facts and mental terms, if any, in behavioral theory.

behavioristic psychology[20]. 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 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. 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." [Franck 1924, 25].

For Frank, behaviorist psychology was a rather mechanistic version of associationist psychology which was 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, 25].

In other words, the social scientist who set 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 more sophisticated fashion. He held that human beings are equipped with certain "complexes" among the "nerve receptors," which determine a characteristic response-

[20] 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, V] and Rutherford [Forthcoming].

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, 252-253].

As to the rejection of consciousness, then, 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, 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, 25; see also Snow 1924].

Even the concept of instinct ought to be discarded in so far as it was conceived in purposive terms: "such a *metaphysical* interpretation of organic predispositions" – wrote Adolf Snow[21] – "is unintelligible." [Snow 1924, 492: emphasis added; 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, 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, 256]. It was on these grounds that Copeland dismissed the idea of rationality and given preferences implied by the neoclassical *homo oeconomicus*: contrary to what is 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, 263].

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 the behaviorists' 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, 250; see also Frank 1924, 37fn].

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 like *experiment*, *experimental*, *quantitative techniques* and the like became very common in the methodological debates of the 1920s. Again, 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, 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

[21] Adolf J. Snow, psychologist, wrote extensively on the applications of psychology to economics and business. See, for

"quantitative – experimental method" often remained unclear, raising heated debates and controversies over Mitchell's line of thought [Schultz (1937) 2000; Seckler 1975; Fiorito – Samuels 2000].

Finally, as to the issue of social control, it should be noted that Hamilton had already listed the pragmatic nature of the "new economics" 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."[22]

4.1. EPILOGUE: 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 which 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, 445].

Throughout the 1920s institutionalism as a movement was certainly in its upward path [Rutherford 2000b, 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 which may stand behind the decline of institutionalism[23]. The aim of this section is to provide a brief and schematic discussion of those events which had 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-

example, his *Psychology in Business Relations* [1925] and *Psychology in Personal Selling* [1926].
[22] See, for example, Suranyi Unger [1931], Haney [1936].
[23] On the decline of institutionalism see the recent discussions by Rutherford [2000a; 2000b].

pecuniary and the neglect or under-emphasis upon the pecuniary motives, as the old economic man was the result of the opposite tendencies"[24] [Carver 1919, 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 scrap heap and a new one constructed upon the study of human behavior" [Bye 1924, 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-Fiorito 2002]. 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[25]. 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."[26]

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

[24] It should be noted, however, that Carver did not mention the name of Watson.
[25] 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].
[26] Frank H. Knight to Morris A. Copeland: November 9, 1926. Knight Papers, Department of Special Collections, University of Chicago. The letter is reproduced in Asso-Fiorito [2002].

critique of the "Slutsky School" in demand theory [Knight 1944][27]. 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 F. 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. Such a coefficient – Knight pointed out – was intended to be a "purely *behavioristic* principle, or at least purely relative" [Knight 1944, 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, 290]. This critique of the Slutsky school[28] 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. 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[29]. 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[30].

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 19th century hedonism; on the constructive side, however, its contribution was of minor importance. As Allyn Young wrote in a

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

[28] At a more analytical level, Knight's proposal was to redefine the demand curve so that it would depict the quantities of a commodity purchased, not with income and all other prices being constant – as held by the Slutsky school – but with adjustments in other prices that would restore the original level of total utility. According to Knight, this was designed to exhibit the "substitution effect" exclusively, with the "income effect" removed. Whereas the followers of the Slutsky's school isolated the income effect consequent upon a price change by an adjustment of money income, Knight thought the task of adjustment to be assigned to the prices of all other goods. As noted by Mirowski and Hands, Knight believed "that the idea that one could analytically decompose movements along a microeconomic demand curve into income and substitution effects would lead to the conviction that one could actually factor out variations in macroeconomic incomes from price-theoretic considerations and thus open the door to (insidious) Keynesianism." [Hands-Mirowski 1998, 270]. On Knight's criticism of Keynes, see Asso [1990].

[29] 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-Fiorito [2002]. Quite interestingly, however, in his book Hutchison expressed skepticism over behavioristic psychology.

[30] Our archival investigations provided evidence that Jacob Viner too questioned the alleged non hedonistic content of the indifference curves approach to demand theory. As he wrote in a letter to John Maurice Clark: "Incidentally, I would contend that consumers' indifference curves as ordinarily interpreted are more objectionably specific in some of their psychological connotations than utility curves as ordinarily interpreted. The word, 'indifference,' is itself more hedonistic in its connotation of exact balancing all along any particular curve and of the existence of whole families of such curves than the lonely and vague utility curve, even though less hedonistic in not suggesting that the balancing is of pleasures or satisfactions." Jacob Viner to John M. Clark, December 5, 1946. Jacob Viner Papers, Princeton University Library.

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"[31].

4.2. EPILOGUE: THE DEVELOPMENTS WITHIN INSTITUTIONALISM

So far, 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 in 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], Raffaelli [1984], and, more recently, in a skilful contribution by Albert and Ramstad [1998]. Therefore we shall limit ourselves to a number of brief remarks.

Commons' 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 which 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 deliberative 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

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

> to choose between conflicting interests; then his pure theory is perhaps found to contain the assumptions which directed his choice" [Commons 1934, 103].

Although Commons himself often categorized as "behavioristic" to describe 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, 640-641][32].

Commons' argument for the inevitability of metaphysical elements in social science – an idea which, as we have shown elsewhere [Asso-Fiorito 2002], had already been developed by Knight in the early 1920s – 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'," – Commons continued – "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, 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 volontarist path. As emblematically shown by the passages quoted above, Commons' continuous reference to the "will," together with his insistence on "volition" as the distinguishing feature of the social sciences,

[32] Compare the above passage by Commons with the following statement by Copeland: "And mind, as a behavior trait of the human body, is presumably understandable by analyzing it into the behavior-traits of the structural parts of the body." [Copeland 1930, 16].

clearly distance him from the behavioristic mockery of teleologism and human purposiveness which we have found in authors like Copeland or Frank[33].

Also Clark had critical attitudes towards behaviorism. In 1918, for example, Clark devoted a two-part essay to "Economics and Modern Psychology" [Clark 1918] 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.[34]

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 behavior: 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, 282-283].

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

[34] 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 [1979, 499; 1982, 718]. Another interesting thing, which 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: "Another thing on the same subject is a paper by Carleton Parker, read at the meeting of the American Economic Association last Christmas. […] 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

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 writings of the mid 1920s [35]. 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, 1028]. Institutionalism soon become associated with naive "inductivism"[36]. 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, 5] was attacked by early econometricians on the ground that as "recent researches in mathematical economics have shown […] it is quite possible to subject the hypothesis of rational behavior to a concrete statistical test." [Schultz (1937) 2000, 346].

The dispute over the correct method in quantitative analysis reached its apex in 1947 with Koopmans' 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, 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.

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qualities, I the modifying elements of the environment." John Maurice Clark to Roche-Agussol: Sept. 14, 1918. Joseph Dorfman Papers, Rare Book and Manuscript Library, Columbia University.

[35] 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 which had characterized its earlier years. Interestingly, 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].

[36] "We had the Historical School and now we have the Institutionalists. Save in one or two privileged places, it is safe to say that, until the close of the war, views of this sort were dominant in German Universities circles; and in recent years, if they had not secured the upper hand altogether, they have certainly had a wide area of power in America. Yet no one single 'law' deserving of the name, not one quantitative generalization of permanent validity has emerged from their efforts. […] All the really interesting applications of the statistical technique to economic inquiry have been carried through, not by the Institutionalists, but by men who have been themselves adept in the intricacies of the "orthodox" theoretical analysis. [Robbins (1932) 1984, 114-115].

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][37], Ayres developed a distinct approach to the study of human behavior.

No attempt is made here to give a comprehensive view of Ayres' 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 the inner lack of homogeneity of behaviorism when it first emerged, Ayres believed that the early institutional economists were all "resolute behaviorists." [Ayres 1962, 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[38]. 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' analysis may be defined *cultural behaviorism*. Ayres' starting point was that there is "no such thing as the original nature of man." [1952, 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. Culture thus is not something shaped and renewed by human aspiration but rather a "unique phenomenon […] self-explaining and self-perpetuating" [Ayres 1962, 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, 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, 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, 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 laying behind technological advance and the "backward-looking" structures of society [Hodgson 1999, Rutherford 1994, Seckler 1975].

[37] In what follows reference will be made to the second edition of the *Theory of Economic Progress* [Ayres 1962].
[38] See especially Dewey [1922].

As a behaviorist, Ayres saw no merit in a social psychology which 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, 109]. In Ayres' 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.

5. CONCLUSIONS

This paper has documented the rise and fall of instinct theory among institutional economists and their subsequent move toward behaviorism. At the turn of last century, when the foundations of institutional economics were laid down, a growing number of American economists began to attack the psychological assumptions of marginal utility economics, then only in its infancy, finding in the instinct doctrine developed in psychology and biology a viable alternative to psychological hedonism.

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 behavioral patterns. 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 consistently 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 economists – among which we found "minor" figures like Tead and Marot – drew attention toward the potential applications of instinct theory to the problems of the new industrial society. Even more orthodox economists such as Fisher and Taussig, showed their reluctance to commit themselves to a single interpretative theory of human action and, as discussed above, both saw in instinct theory a powerful heuristic tool for the interpretation and guidance 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. Among them, 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 it unduly neglected the role of institutions and social pressure in molding and directing human behavior.

We have also shown that, quite interestingly, as far as economics is concerned, 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[39]. The crisis of instincts theory, however, deprived institutionalists of powerful ammunition for their attacks on psychological hedonism. An alternative was found in the emerging behavioristic doctrine launched by J. Watson in 1913 and which was rapidly gaining 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, these economists 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 of eschewing metaphysics – introspection – from economics, of interpreting human behavior mainly in terms of learned patterns of behavior, and of formulating behavioral laws which would serve for social control and could be tested empirically.

The institutionalists' hopes of the 1920s were doomed to be disappointed 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 decline of the latter. First of all, with the so called "ordinalist turn" systematized in the 1930s by the work of the "Slutsky school" – to use Knight's notation – mainstream theorists were able to challenge institutionalists on their own methodological ground. By freeing marginal economics from psychological hedonism and 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 far as the "internal" history of institutionalism is concerned, our contention is that behaviorism influenced the development of the movement at least in three respects. Firstly, behaviorism further "divided" institutionalism – a school already heterogeneously composed – in the sense that not all the main figures endorsed with enthusiasm the behavioristic campaign of the 1920s. Our analysis has briefly discussed the dissenting positions of Commons and John Maurice Clark. Secondly, behaviorism implied a growing concern among institutional economists for quantitative and empirical studies. In the eyes of their opponents, institutionalists began to appear as mere "data collectors," eschewing theoretical considerations from economics. Thirdly, from the behavioristic climate of those years there emerged in the '40s through the work

[39] 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. 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, 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 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 which drove institutionalism – as a critic once observed – into the realm of "cultural anthropology"[40]. Ayres' 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, at least as far as the Ayresian wing is concerned, 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 eliminated 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.

[40] 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 in –"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, 28-29].

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