

UNDERSTANDING CLARENCE AYRES'S CRITICISM OF AN EMERGING MAINSTREAM AND BIRTHING INSTITUTIONALISM THROUGH THE 1930S AYRES-KNIGHT DEBATE

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Clarence Ayres was a strong dissenting voice in US economics during the twentieth century. In the 1930s, a debate between Ayres and Frank Knight was published by the International Journal of Ethics. Although the debate focused on ethics, the evolution of economics was also discussed. This paper proposes an understanding of Ayres's ideas based on the context in which he made them. This context is defined by the 1930s Ayres-Knight debate and the archival correspondence between Ayres and Knight during the 1930s.

I. INTRODUCTION

The objective of this paper is to offer a better understanding of Clarence Ayres's dissenting ideas. To do so, we examine the 1930s Ayres-Knight debate to better understand Clarence Ayres, an important but less studied dissenter economist. What we call the "1930s Ayres-Knight debate" was a debate between Ayres and Frank Knight published by the *International Journal of Ethics* in 1935. Our investigation of the debate sheds light on the way an important mid-twentieth-century dissenter dealt with the rise of

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ISSN 1053-8372 print; ISSN 1469-9656 online/20/03000401-416 © The History of Economics Society, 2020
doi:10.1017/S1053837219000336

the new mainstream view in economics.¹ In the 1930s Ayres-Knight debate, Knight represented the emerging mainstream view against Ayres's criticism. We complement our analysis of the debate by tapping archival sources, mainly from the Clarence Ayres Papers Collection.

This paper unfolds in four more sections. The next section introduces Ayres's educational background and influences, mainly those received in the late 1910s at the University of Chicago, which explains Ayres's association with Veblenian institutionalism and Deweyan pragmatism, which was the basis of his own institutional perspective and criticism of the emerging mainstream. The third and fourth sections discuss the 1930s Ayres-Knight debate. In the third section, the analysis of the debate begins by addressing Ayres's reading of the emerging mainstream view in economics and Knight's reaction. Section four discusses Knight's criticism of Ayres's institutionalism and Ayres's reaction. In the third and fourth sections, we argue that Ayres's educational background is central to understanding his perspective in the 1930s Ayres-Knight debate. Some final notes conclude the paper.

The analysis finds that Ayres's criticism of the new mainstream focused on (1) a lack of practical importance of price theory, (2) the inculcation of the ethics behind the market equilibrium, and (3) the treatment of capitalists' interests and the notion of capital. Regarding Ayres's emerging institutionalist approach, Knight criticized the notion of cumulative change and pointed out a technological determinism that later would constitute a key criticism of a more mature version of Ayresian institutionalism.

II. CONTEXTUALIZING CLARENCE AYRES IN EARLY TWENTIETH-CENTURY ECONOMICS

Despite Ayres's authority in twentieth-century economics, it is not easy to situate him in the school of economic thought with which he is typically associated: institutional economics. The reason is that American institutionalism was not associated with a clear paradigm but loosely based on the related research programs of, and methodological views shared by, its adherents (Asso and Fiorito 2008; Rutherford 2011, ch. 1; Fiorito 2012).

Additionally, Ayres is typically associated with postwar institutionalism (see Gruchy 1972, pp. v and 1; and Breit 1973, p. 244). However, as noted by Bob Coats (1976, p. 24), Ayres cannot be considered a strict postwar institutionalist but rather an institutionalist between generations. He was none of the following: founding father; a contemporary of the "big three" at the apex of institutionalism—Wesley Mitchell, John Maurice Clark, and Walton Hamilton; or a postwar institutionalist whose formative years were between the two world wars. During the postwar period, Ayres was already a

¹The new mainstream, which emerged in the 1930s, focuses on the price theory derived from rational economic decisions. The analysis of the formation of prices under different market structures, because of rational decisions taken by consumers and firms, formed the basis of what most economists would be taught as economic theory from the middle of the twentieth century onwards. As the association of Knight and the emerging mainstream is a key issue for this paper, see Emmett (2009), Rutherford (2011), and Fiorito (2012) for analysis regarding Knight's role in criticizing institutionalism and establishing price theory and the techniques of analysis associated with it as the cornerstone of the Chicago education in economics.

senior figure and one of the leading institutionalists of his time (Coats 1976; Cavalieri and Almeida 2017). To illustrate, Edwin Witte, during his tenure as the president of the American Economic Association, informed Ayres that people referred to him as “the dean of all institutional economists now living” (Witte to Ayres, 30 April 1956, Ayres Papers, 3F296). During the mid-1930s, straddling the generations of institutionalism was one of Ayres’s strong characteristics.

In our opinion, Ayres was an institutionalist interested in improving institutional theory and wanted to understand the development of Western society. Considering his chief influences, Ayres can be understood as a pragmatist-institutionalist or a Deweyan-Veblenian institutionalist by formation.² Ayres was educated during the days when institutionalism was held in high regard in important academic departments and the government, but his career continued through the decades when the movement became a marginalized dissenting voice in economics. The fact that American institutionalism can be characterized as a set of loosely related research programs, and Ayres belonged to an intermediate generation of institutionalists, resulted in his singular view of what institutional economics should be—an improvement of Thorstein Veblen’s approach by applying pragmatism and further development in terms of both theory and its ability to explain economic developments.

We think that Ayres’s educational background at the University of Chicago, heavily based on institutional economics and especially on pragmatic philosophy, is important in understanding his support for a form of theoretical institutionalism that relied on Veblen’s writings and pragmatic philosophy. Ayres’s records at the University of Chicago show that he got his PhD in philosophy and economics (Ayres’s Record of Work, The University of Chicago Office of the Recorder Archives, 1917). Ayres went to Chicago to study under Robert Hoxie in the Department of Political Economy. Ayres’s original plan changed because of Hoxie’s suicide in the summer of 1916 (McCann and Kapuria-Foreman 2016).³ According to Ayres’s records, during his PhD candidacy, he mainly took subjects offered by professors from the Department of Philosophy and Department of Political Economy (Ayres’s Record of Work, The University of Chicago Office of the Recorder Archives, 1917).⁴ The influence of James Hayden Tufts, Addison

²The terms “pragmatist-institutionalist” and “Deweyan-Veblenian institutionalist” are applied to emphasize Ayres’s major influences: the pragmatic philosopher John Dewey and the American institutionalist Thorstein Veblen.

³Robert Hoxie had been a student of Veblen at the University of Chicago. Hoxie received his PhD in 1905, became a faculty member in 1906, and held this position until his suicide. As Veblen’s student, Hoxie studied the impact of the “industrial discipline” on unionized workers’ habits of thought. Later, he became a great researcher on the American Labor Movement (Rutherford 2011). There is no information on who Ayres’s adviser was after Hoxie’s death in Ayres’s Record of Work in the University of Chicago Office of the Recorder Archives for 1917. The Deweyan James Hayden Tufts signed Ayres’s PhD. However, Tufts was the head of the Department of Philosophy when Ayres graduated and, hence, it cannot be assumed that Tufts was Ayres’s adviser, as signing PhDs could simply be a duty of the head of the department.

⁴During the summer of 1916, Ayres chose *Evolution of Industrial Society* and *Modern Industrial Society*; both these courses were taught by Leon (L. C.) Marshal. Further, he took Tufts’s *Research* (Department of Philosophy) and John Maurice Clark’s *Research* (Department of Political Economy). In the autumn of 1916, Ayres attended *Industrial Combinations—Trusts* offered by Chester Wright, *Thought and Reality* by Addison Webster Moore, and *Tufts’s Evolution and Morality*. During the winter of 1917, Ayres studied *Value under Clark*, and *Trade Unionism*, and *Social and Political Philosophy* offered by Tufts. In the University of Chicago records, *Trade Unionism* is associated with Robert Hoxie. However, Hoxie died in the

Webster Moore, and John Maurice Clark explains Ayres's Veblenian institutionalism that was focused on Dewey's pragmatism.

On 31 August 1917, the University of Chicago conferred a PhD on Clarence Ayres. Ayres's PhD was *Magna Cum Laude*, and recommended by James Hayden Tufts, the head of the Department of Philosophy at that time (Ayres's Record of Work, The University of Chicago Office of the Recorder Archives, 1917).⁵

Despite being an institutionalist, Ayres seemed unsatisfied with the then state of institutional economics in both his papers about the Ayres-Knight debate—Ayres (1935a) and Ayres (1935b).⁶ Additionally, during the 1930s, in a letter from Ayres to Knight (23 February 1934, Clarence Ayres Papers, Box 3F290), Ayres wrote:

Every year I feel more strongly that the so-called institutional economics will not get anywhere until and unless it is about to think through the problem to which neo-classical theory is addressed. A Hamiltonian gesture of dismissal is not enough. In spite of the gesture, institutionalist thinking is bound to be simply bad economic thinking. The institutionalists have been naughty boys making faces.

It is important to highlight that Ayres's stereotyping of institutional economics corresponded to what was typically understood as institutional economics during the mid-1930s.⁷ Ayres's interpretation of Veblenian institutionalism or the would-be Ayresian institutionalism was embryonic during that time. Given this background about the

summer of 1916 (see McCann and Kapuria-Foreman 2016). Hence, Trade Unionism was taught by Hoxie's substitute. During the spring of 1917, Ayres attended History of Political Economy, which is also associated with Hoxie in the University of Chicago records; Population, the Standard of Living, and Eugenics offered by James Alfred Field; and the Philosophy of Kant by Tufts. In the summer of 1917, Ayres took another subject called Research (Department of Philosophy), but there is no mention of the subject's professor. Similarly, the records do not mention who taught the course Tendencies in Economic Thought that Ayres took. There are four courses that Ayres took that cannot be identified because of illegible handwriting. They are a course from the Department of Philosophy, taken by Ayres in the summer of 1916, and two other courses from the Department of Philosophy, as well as a course from the Department of Political Economy that Ayres took in the winter of 1917. In spring 1917, Ayres also took a course from the Department of Psychology (Ayres's Record of Work, The University of Chicago Office of the Recorder Archives, 1917). In a letter to Allan Gruchy, Ayres wrote that Hoxie committed suicide on the morning of the fourth class of the course he was attending (11 February 1968, Clarence Ayres Papers, Box 3F288). From this information, we can assume that Ayres was attending a course delivered by Hoxie in the summer of 1916. This information is not consistent with Ayres's records at the University of Chicago.

⁵Other information about Ayres's educational background and early career may be pertinent in understanding the issues addressed by this paper. Ayres received a BA in philosophy in 1912 and a MA in economics in 1914 from Brown University. During his BA course, Ayres was in contact with Alexander Meiklejohn, who became president of Amherst in 1912. In 1915, Ayres joined the faculty at Amherst as an instructor for the course offered by Walton Hamilton, who had been hired by Meiklejohn. Then, Ayres went to the University of Chicago to pursue his PhD, as shown above. After receiving his PhD, Ayres taught philosophy at Chicago before joining the faculty at Amherst in 1920. Ayres resigned from Amherst in 1923. Between 1923 and 1930, Ayres worked for the *New Republic* and Reed College. In 1930, Ayres joined the University of Texas at Austin, retiring in 1968 (see Rutherford 2001; Rutherford 2011, pp. 28, 29, 30).

⁶Ayres's dissatisfaction with institutional economics did not manifest itself only during the 1930s Ayres-Knight debate. According to Rutherford (2015a, p. 100), Ayres's *The Theory of Economic Progress* (1944) "seems to agree with the orthodox criticism that institutionalism was overly descriptive and lacking in theory."

⁷During the 1930s, the main representatives of the institutionalism movement were John Commons, John Maurice Clark, Walton Hamilton, and Wesley Mitchell.

dramatis personae, we advance to our analysis in the next sections. The next section focuses on Ayres's criticism of the emergence of the new mainstream view in economics in the 1930s Ayres-Knight debate.⁸

III. THE PRICE THEORY AND THE DYNAMICS OF CAPITAL

Price theory was at the core of the new mainstream view that Ayres observed and was his main criticism (Ayers 1935a). In Ayres's (1935a, p. 180) words, there was no justification for "the importance of price in a commercial civilization," but it was ideal for a statesman "for the excellent reason that price has been conceived as the locus of a system of reciprocal forces which automatically regulate the economic order." In a letter from Knight to Ayres (8 January 1935, Clarence Ayres Papers, Box 3F290), Knight expresses that Ayres's idea of "throwing away classical price theory is to me absolutely indefensible." Replying to Knight (Ayres to Knight, 15 January 1935, Clarence Ayres Papers, Box 3F290), Ayres wrote:

All price studies of specific situations, whether for business or by governmental purposes (i.e., control by businessmen or by governmental agencies) must necessarily be made by supply-and-demand analysis. In that sense, I agree unreservedly that the 'old fashioned' categories are useful. The question always is: useful for what?

In what follows, Ayres affirms:

The sole function of the equilibrium analysis in classical theory is to exhibit the point of maximization. If nothing is to be said about this, the equilibrium of forces is completely vacant of meaning. Try working out a statement of that aspect of the theory which is 'mechanical' without any mention whatever of the 'value judgment' element which, you say yourself, is open to dispute. The curves will have no *raison d'être*. The exercise will be completely unintelligible. I agree with you that classical theory intended to extend its scientific semblance to the value judgment too, and that this was its chief error. But when that error has been excised, nothing remains. (emphasis in the original)

The key point of Ayres's criticism is that price theory can be of some use to organizations—government or business—because price plays a key role as a regulator of economic activities. Nevertheless, price theory's practical application is too limited to explain the importance of price in a socio-economic system. Reading between the lines,

⁸There are few historiographical studies on the 1930s Ayres-Knight debate. DeGregori (1977) highlights the moral and ethical issues of the debate. The brief comments in which DeGregori (1977) considers the discussion on economic theory are biased towards Ayres because he emphasizes Ayres's criticism but not Knight's. The 1930s Ayres-Knight debate was characterized by mutual criticism. In contrast to DeGregori (1977), Buchanan (1976) adopts a more balanced perspective on the 1930s Ayres-Knight debate. According to the Nobel laureate, the debate occurred between the "leading members of the profession" at the beginning of the twentieth century (Buchanan 1976, p. 163). However, Buchanan's (1976) analysis is not from a history of economics perspective but from the perspective of how economics developed after Ayres and Knight's 1930s debate. In the historiographical literature, Samuels (1977) is the only study that considers Ayres-Knight's personal correspondence. However, Samuels (1977) is basically a collection of the lifetime correspondence between Ayres and Knight that presents a summary of the debate in the *International Journal of Ethics*. In the closing remarks, Samuels (1977) offers general comments addressing statements on Ayres's and Knight's general contributions to economics.

Ayres understood that the price system would be useful for analyzing market elements but not for the more encompassing problems of the economy, such as regulating economic life; providing essential goods and services; mitigating and avoiding depressions; and dealing with problems involving ethics, politics, and the proper functioning of the economic system. The market ethics of an automatic adjustment mechanism to solve social problems that was implicit in price theory was a major problem for Ayres. In a letter from Knight to Ayres (22 January 1935, Clarence Ayres Papers, Box 3F290), Knight noted:

[I]t has been confused with the concept of a moral ideal by expositors of price theory. When they did so, they were as wrong as you are. Yet this statement is extreme too. There is a very considerable truth in the view. The social equilibrium of price theory is morally ideal to the extent that (1) the values of life depend on the economical administration of resources by individuals, and (2) the distribution of resources among individuals is itself ethical. This was what I was trying to prove, and I think, it virtually proves itself if it is understood. (emphasis in the original)

Knight continued his comments on Ayres's criticism of the equilibrium logic in *The International Journal of Ethics*. Knight (1935, p. 200) emphasizes that “[o]n one of the essential methodological questions, I must bluntly say that Ayres and the other ‘Veblenians’ simply do not know what they are talking about.” Knight (1935) focuses his initial criticism on the notion of equilibrium, which suggests that he understood that Ayres had dealt wrongly with equilibrium. Knight (1935, p. 200) introduces a simple model of ascending and descending forces expressed in graphical curves as in supply and demand. Considering this model, Knight highlighted the following: “The equilibrium point is the point of equal tension in the two directions, and is the point at which any such system will and does come to rest. It may, of course oscillate more or less about the equilibrium point, and may be impeded in its movement by friction, as economic discussion always recognizes” (Knight 1935, p. 200).

Knight (1935, p. 201) also emphasizes that if an individual choice between commodities in the expenditure of income is considered, issues other than equal tensions of an equilibrium analysis, such as the “law of diminishing utility,” are taken into account. Further, Knight (1935, p. 201) affirms:

When economists assume, as they generally do, more or less explicitly, that it is ‘a good thing’ for the individual to equalize marginal utilities, thereby ‘maximizing’ the total utility obtainable from his expenditures on the two alternatives together, this is something different from an equilibrium of forces; a value judgment is involved.

For Knight (1935, p. 201), this value judgment is open to discussion. For instance, he (1935, p. 201) emphasizes that the value judgment of the medieval church differs from that of economics because pain would be “better” than pleasure. He (1935, p. 202) also emphasizes that the consideration, in economic equilibrium analysis, of more than one individual is mechanically and ethically more complex. For individuals competing to buy the same product, a competitive market would be divided to equalize individuals’ opposed “pulls” that, in this case, mean their purchasing power (Knight 1935, p. 202). For Knight (1935, p. 202), “[t]he equilibrium is ethically ideal only if the distribution of purchasing power is either ideal or unalterable by a human power.”

In sum, Ayres and Knight were discussing the ethical implications of price theory. Ayres thought that this theory contained a biased view of market ethics that suggested social problems could be solved automatically by the price mechanism. When he affirmed that the theory is useful for the “statesman,” he was ironically suggesting that since the price mechanism solves social problems, there is not much for the “statesman” to do besides preserving the functioning of this mechanism (Ayres 1935a, p. 180). Knight recognized the ethical side of price theory. However, he argued that it has a specific meaning, excluding any justification of the actual “purchasing power” (Knight 1935, p. 202).

We think Ayres’s argument goes beyond the ethical discussion Knight proposed. He was worried about price theory inculcating the idea that major social problems could be solved automatically (Ayres 1935a, pp. 175–176).⁹ This is related to Ayres’s agreement with the view of John Dewey (1921) and Veblen ([1904] 2005) about economic phenomena that “habits of thought” could inculcate practices in individual behaviors that result in the conditioning of social phenomena.¹⁰

In addition, Ayres was concerned with the idea that economics, which was turning itself into a science of the price mechanism, could abandon other important problems (Ayres 1935a, p. 183). He advocated reconstructing economic theory starting from a point of view that would not consider the solution to the problem of social provisioning of goods and services as a result of an automatic mechanism. However, in Ayres’s opinion, institutionalism had not done much to elaborate a new theory from this new starting point. A more radical rupture was needed (Ayres 1935b, p. 357),¹¹ based on a theoretical alternative developed in the vein of Deweyan-Veblenian economics.¹²

Another of Ayres’s strong criticisms of the emerging mainstream addresses the association of price theory with what he called the “dynamics of capital.” Considering the conceptualization of capital, Ayres (1935a, p. 185) argues that the rise of the new mainstream view in economics misconceived the nature of capital. According to Ayres (1935a, p. 185), the new mainstream economists focus on the function of capital instead

⁹As noted by Rutherford (2011), the philosophy of social control—radically against the idea of an automatic/spontaneous solution of social problems—was central to the institutionalist movement.

¹⁰According to Dewey’s and Veblen’s perspectives, decision making relies on habits of thought. They are present in the knowledge and culture in a society. Each generation introduces society’s current habits of thought to the next. A habit of thought is not the “best mindset” but the way thinking takes place in a society. Hence, habits of thought can inculcate how to think about something or how things are done in the decision maker’s mind.

¹¹Additionally, as stated by Ayres (1935a), price theory implies a tautology in that price is determined by the utility of goods and cost of production. According to Ayres (1935a, p. 181), “the tautology is obvious. Such qualities or entities as ‘value’ and ‘utility’ are obviously incommensurable except in terms of price.” Ayres (1935a) points out another tautology in how productivity is “measured” (Ayres 1935a, p. 182). We do not explore the tautologies stressed by Ayres (1935a) because we understand that what Ayres was addressing—mainly regarding productivity—was not clear.

¹²Requesting a radical rupture puts Ayres’s institutional perspective next to Veblen’s. According to Veblen, economics should be reconstructed based on an evolutionary approach. This revolutionary perspective differentiates institutional economics from other economic schools of thought. Other institutionalists—such as Commons and John Maurice Clark—also demanded a reform of economics. This reformist perspective brings institutional economics close to other economics approaches. Additionally, during the 1930s, some institutionalists strongly relied on empirical and historical studies—à la more mature works of Mitchell. We believe that Ayres’s dissatisfaction with the 1930s institutional economics was a dissatisfaction with the theoretical development, which did not further the revolutionary character of institutional economics.

of the status of capitalists. Hence, the interests of capitalists were “rationalized” at some level (Ayres 1935a, p. 185).

Here, Ayres followed a Veblenian line of analysis. In Veblenian institutionalism, there is a ceremonial differentiation of people. The key issue would be the socio-economic importance of being a capitalist; being a successful capitalist may suggest the availability of resources for pecuniary waste. To be a capitalist would be an indicator of (potential) status. Hence, others placed in the same socio-economic system would emulate capitalists by following a Veblenian leisure class logic (see Veblen [1899] 2007). Moreover, capitalists would be interested in retaining their differences from others in the same socio-economic system (see Veblen [1899] 2007); this is quite different from a strictly profit-seeking perspective because it relies on pecuniary interest. Because the logic of status is the differentiation, capitalists are continually trying to establish instances of differentiation in relation to the rest of the community. The accumulation and demonstration of riches are the most prominent instance through which capitalists show their differentiated status. Thus, if capital has a function in the production of goods and services, it also has the cultural function of demonstrating the status of the capitalist (Ayres 1935a, p. 185).

Furthermore, Ayres (1935a, p. 185) criticizes the conceptualization of capital and land by the new mainstream economists. For Ayres (1935a, p. 185), capital is distinct from land because the latter exists prior to its appropriation, whereas the former does not. Ayres’s point is that capital is created by capitalists. Ayres (1935a, p. 185) is clear that “[f]or centuries it has been the general belief of all the classes of bourgeois society that capitalists perform the function of capital accumulation.” Ayres (1935a, p. 186) affirms that there is a common presumption that capital is essentially disposable funds; he calls this the “mercantilist fallacy.”

Regarding the distinction between capital and land, Ayres, who demanded a more instrumental differentiation, stressed a Deweyan-Veblenian perspective. This differentiation would imply differences between the social classes who held these resources. For Ayres, understanding land and capital as the same thing leads to the naturalization of the capitalists’ interests in economics.

According to Ayres (1935a, p. 186), capital, along with wealth, is the foundation of an industrial society, but capital is “the multiform material equipment of society of which funds are only the symbol, as money is the symbol—the mere unit of measurement—of wealth. As such, capital plays a tremendously potent part in modern civilization, the dominant part.” Ayres (1935a, p. 186) affirms that equipment—what he calls “objective reality”—plays a role that is not played by the symbol. Capitalists accumulate the symbol—money—not the equipment. The real surplus is the excess of physical materials, not interest or capital (Ayres 1935a, p. 186). Ayres (1935a) also emphasized that labor and capital productivity are correlated. The main point is that, unlike land, capital, being the form in which capitalists can signal their status, can be accumulated indefinitely. The “rat race” of status competition has no limits; thus, capital, whose accumulation, mainly in the symbolic form, is unlimited, is the perfect instrument for it.

A key issue for Ayres is the origin and use of capital matters. Understating capital as disposable funds does not consider the pragmatic view that Ayres inherited from Dewey; this view relied on what “capital” means and what it generates. For Dewey (1910), the ends turn into the means because of habits of thought. As stated by Dewey (1910), habits of thought evolve in a society; through this evolution, the ideas present in

them become embedded in thinking, giving the impression that they are natural ideas of that society. We think that Ayres's criticism of the concept of capital in the new mainstream, which lacked a discussion of the uses of capital, came to be that way due to the internalization and naturalization of the interests of capitalists in economic thought. To analyze capital as disposable funds without taking its uses and origins into account means considering the ethics of a particular economic system (capitalist ethics) as the definitive ethics.

It is possible to affirm that Ayres also followed a Veblenian line of analysis by focusing on the social aspects of capital. Veblen understood "capital" as the accumulated technological/industrial experience of the community. In his perspective of capital, Veblen gave importance to intangible assets and historical conditions. For Veblen, capital is a collection of physical equipment but also of historically specific business practices—habits of thought developed by the consensus in the business community. According to Veblen, the social aspect of capital is more important than its financial or physical aspects (Cohen 2014).

Regarding Knight's comments on Ayres (1935a), Knight focused on capital, land, and labor—Ayres (1935a) does not name labor—as a constituent of a property system. Knight (1935, p. 202) says: "It has been usual to divide productive capacity into three types of categories, labour, land, and capital, but only the distinction between labour and 'property' has any relevance at all, and the least examination will show that even that has relatively little."

Knight (1935, p. 202), in considering property systems, says that labor power is "property." However, he recognizes that for a property system, "remuneration is itself a fundamental problem in historical ethics and social psychology" (p. 202). As stated by Knight (1935, pp. 202–203), income-earning capacity relies on "the relation between the demand of consumers and the *scarcity* of the particular capacities which the individual does possess" (emphasis in the original).

Additionally, he (1935, p. 203) affirms that income earning "depends on the measure of the capacities possessed, and the ethical justification of the income is carried back to the ethical character of the source of these capacities and of their ownership." In Knight's (1935, p. 203) words: "One factor in the productive capacity exercised by an individual—whether in the case of labour or property ownership—is a complex of such personal qualities as effort, judgment, skill, etc. Each of these may or may not be regarded as constituting an ethical valid claim to the resulting income."

As stated by Knight (1935, p. 203), the earning capacity of an individual comes from (1) pre-existing capacity plus accumulation; (2) self-development; (3) external wealth; or (4) circumstances, such as inheritance or luck, over which the individual has no control. Knight (1935, pp. 203–204) affirms that "there is no general difference from any ethical standpoint between 'labor' and 'property' as a source of income." What caught his (1935, p. 204) attention was that wealth and poverty "depend on the size of the income and not its source."

In considering capital, land, and labor, land was not a core point of debate. Our paper highlights that Ayres relied on a Veblenian view of capital and criticized the emerging mainstream treatment of it accordingly. Knight did not mention Ayres's criticism of the concept of capital and focused on an explanation of labor. Despite Knight's "silence" on capital, he did criticize the Ayresian interpretation of Veblenian institutionalism—which is based on the dynamics of capital, as described above.

IV. THE ROLE OF TECHNOLOGY

The previous section introduced some factors concerning Ayres's comprehension of the dynamics of capital. In his reading of the dynamics of capital, Ayres introduces what can be considered the nascent Ayresian interpretation of Veblenian institutionalism. Another core point of Ayres's understanding of Veblenian institutionalism is the role of technology in economic development. Given Ayres's criticism of the new mainstream approach to the definition of capital, Ayres (1935a) addresses an important question: How do capital equipment and surplus in industrial products come into existence?

For Ayres, the answer is technological efficiency. According to Ayres (1935a), technological efficiency is related to cultural issues, which means technological efficiency achievement relies on its relationship with institutions.¹³ For Ayres (1935a, p. 189), surplus does not come from either need or labor. He did not accept the traditional theories of value. Surplus emerges from the development of technological efficiency pushed by material culture and is depleted by wasteful institutions (Ayres 1935a). Implicitly, Ayres (1935a) offers an analysis of technology according to Dewey's instrumentalism—years later, Ayres would make this analysis explicit.

Ayres (1935a) introduces a stereotype of the evolution of a capitalist society. According to him, there is, at first, a period of conspicuousness when permissive institutions allow the accumulation of capital and an excess of luxury and waste. Then, different forms of accumulation, such as property, rent, and loans at interest, occur that no longer allow excess. The only alternative to waste is higher technological efficiency because a decrease in the excess of luxury does not occur. Hence, Ayres (1935a) highlights the institutions of a capitalist society that rely on conspicuousness, waste, and emulation—just like Veblen ([1899] 2007).

Veblen also introduced a stereotype of the evolution of a capitalist society. Veblen's and Ayres's approach of using historical stereotypes is similar in several senses; the most important is the relationship between technology and institutions. Veblen suggests the importance of technological development, which is associated with the possibility of a technology advancement caused by a break with institutions that hinder the material advances (see Veblen [1919] 2012; Rutherford 1984).

Knight recognizes the connection between Ayres and Veblen. For Knight (1935, p. 208), Ayres's approach to history "is close both to Veblen and to Marxism." It is not clear why Knight considered Ayres's approach to history close to Marxism; Ayres's institutionalism has no connection to Marxism. In this sense, Knight's critique seems to be misplaced or he transposed the association of Veblenian institutionalism with Marx to Ayresian institutionalism.¹⁴

¹³Ayres developed his theory on technology directly from Veblen's recognition of the technological issues as a collective, cultural, and historical phenomenon. For instance, see Veblen (1906).

¹⁴In the 1935 debate, Knight (1935, p. 207) criticizes Marxism by highlighting that "[p]eople prefer to make their own choices more or less independently of even a belief on their own part that they will make them 'better' in any absolute sense than might be done by some 'masters' or government official. This freedom may be taken to include the wish to be one's own judge of the need of advice and to select one's own consultant. People have some inclination to take their own chances, even to 'make their own mistakes'. Moreover, secondly, our 'utilitarian' age has been especially characterized by general acceptance of the value-judgment that people 'ought' to do this within wide limits. As a matter of fact, no government of a state accepting 'enterprise economy' as a basis of its economic organization tolerates slavery. Personal liberty is

Later, in the 1930s, Ayres introduces his own perspective on the development of Veblenian institutionalism, which becomes known as the “institutions–technology dichotomy” (see Ayres 1944; Mayhew 2000; Rutherford 1981). This perspective has been widely criticized by economists, including institutionalists—such as Richard Brinkman (1997) and Clive Lawson (2009). However, in the debate, because Ayresian institutionalism was in *status nascendi*, Ayres (1935a) does not clearly address the dichotomy between technology and institutions in his theoretical proto-development of Veblenian institutionalism. Instead, he briefly mentions the dichotomy. On page 197, Ayres (1935a) notes:

The dichotomy of technology and institutions is implicit in both theories; what occasions opposition is the contradictory views taken by opposing schools of the nature of technology and institutions. Classical theory, strangely enough, is institutional, while the opposing doctrine—in spite of the misnomer of ‘Institutionalism’—is technological. That is, classical theory stems from the presumption that civilization is dominated by institutions of capitalism, whereas ‘Institutionalist’ theory assumes technological dynamics and has derived its name from its critical insistence upon the relativity of institutions.

Knight (1935) criticizes this approach to history and the role of technology within history—and thereby, the core of Ayres’s institutionalism. Moreover, Knight’s (1935) criticism of Ayres’s view of history strikes the core of Ayres’s ceremonial-instrumental dichotomy. Hence, Knight criticized Ayres’s ceremonial-instrumental dichotomy before a completed version of the idea was even available.

To confirm that Knight (1935) criticizes Ayres’s ceremonial-instrumental dichotomy before the idea was finalized, we went through Ayres’s papers and books before Ayres (1935a) to check if the ceremonial-instrumental dichotomy was, in fact, absent from his work before 1935. Regarding Ayres’s papers, Ayres (1918a) describes his reflections on an emerging social psychology. Ayres (1921a) and Ayres (1921b) rely on a connection between an instinctive psychological approach with institutions. Ayres (1918b) is a criticism of the growing body of economic analysis that relies on looking for laws and departing from history. Ayres (1918b) makes no mention of the evolution of technology or anything related to his future ceremonial-instrumental dichotomy. Ayres (1918c) is about ethics and students of ethics. Ayres (1933) is about the critics of neoclassical economics in the context of the Great Depression.

Regarding Ayres’s books, his PhD dissertation, “The Nature of the Relationship Between Ethics and Economics” (Ayres 1918d), does not address the ceremonial-instrumental dichotomy. In *Science: The False Messiah* (Ayres [1927] 1973), Ayres introduced some thoughts on the meaning of science during that time. The key issue of the book is that science is a conventionality and does not represent the truth. In another book, entitled *Holier Than Thou: The Way of the Righteous* (Ayres [1929] 1973), the central issue is the creation and importance of conventionality. Hence, we can affirm that the first two books by Ayres concern the meaning of institutions—without mention of the ceremonial-instrumental dichotomy. Ayres’s third book, *Huxley* (Ayres 1932), is

paradoxically restricted to the extent of depriving people of the liberty of bartering it away for any consideration.” For Knight (1935, p. 207), generally, free self-expression and self-development “motivated the drive for economic freedom to a much greater degree than any idea of greater want satisfaction for the leaders or the masses.” Knight (1935) quotes Marxism as being opposed to the new mainstream principles and is in favor of the latter.

about Thomas Huxley, a biologist who became known as “Darwin’s bulldog” because of his espousal of Charles Darwin’s theory of evolution. The book shows Ayres’s appreciation for evolutionary approaches.

Coming back to Knight’s criticism, Knight (1935, pp. 208–209) summarizes Ayres’s approach to history as: “[f]irst, he assumes for technology some kind of an inner law of progress of an absolute and inscrutable character. Second, there is some equally absolute and inscrutable type of ‘causality’ by which technology drags behind it and ‘determines’ other phases of social change.”

For Knight (1935, p. 209), Ayres’s approach to history fails because it relies on technology as the sole explanation of change. Furthermore, he argues that Ayres’s approach to history lacks an explanation of decadence, which is unquestionably a part of history. In addition, Knight criticizes that Ayres did not explain technical progress—the variables that lead to the selection of a technology.

Ayres (1935b, p. 357), which is a reply to Knight (1935), affirms the following:

I have ventured the opinion that a theory of history is of crucial importance for economic theory of whatever persuasion, and that the dominant role in orthodox historical theory—which therefore merits the special attention of ‘Institutionalist’ critics—was played by capital; and I am delighted to have such weighty support as Professor Knight’s on both these points. He remains impervious, of course, to suggested criticism of the role of capital, and he sees no merit in the suggestion of a technological theory of history.

Additionally, Ayres (1935b, p. 357) affirms: “Surely the dynamic of technology was one of Veblen’s focal ideas—if not the focal one. Why have his followers done nothing with it? Professor Knight can hardly take me seriously when I say that technology is the dynamic force in social evolution, and I can scarcely blame him.”

Ayres did not comment on Knight’s criticism of his approach to history and technology. This was not the first time that Ayres and Knight debated the importance of technology. In a letter from Ayres to Knight (23 February 1934, Clarence Ayres Papers, Box 3F290), the former affirms that the new mainstream economists deny the importance of technological change. In the same letter, Ayres advances that economics is a complex system of human relationships, and the new mainstream economics provides a means to analyze this system. However, for Ayres, the new mainstream economics did not deal with the key element of this system: the technological problem. Concerning the content of Ayres (1935a, p. 197) emphasized above and the letter of 23 February 1934, Ayres understood his debate on technology with Knight as a discussion on technology for the new mainstream and institutional economics. Hence, Ayres did not accept Knight’s early criticism of his ceremonial-instrumental dichotomy, which was still in development.

Knight (1935, p. 210) recognizes that Ayres’s approach to history comes from the Veblenian theory of cumulative change. Knight introduced his reading of cumulative change thus: “[t]he idea of cumulative change evidently means either that successive changes represent ‘more’ of something (which is the literal meaning of the word) or, more generally, that changes have a common ‘direction’” (Knight 1935, p. 210). Knight (1935, p. 211) notes that Ayres was addressing a type of “natural” improvement in technology. In Knight’s (1935, p. 211) words:

If one attempts to define ‘cumulative’ in really objective terms, it is fairly clear that the notion of ‘direction’ of social change cannot be made objective in any accurate sense.

With reference to quantity, a series of changes is cumulative, if throughout we keep what we have and get 'more', whether what is added is of the same kind or of a different kind. But we never do keep all we have while getting more, and when that is the case, we cannot prove that we have more in the aggregate after the change, unless what is given up and what is acquired have some common denominator in terms of which are measurable.

In a letter from Knight to Ayres (8 January 1935, Clarence Ayres Papers, Box 3F290), Knight introduced general comments on his thoughts on another possible theory. In Knight's words:

[T]he old-fashion type of theory is the kind of thinking that we can carry out and use. It seems to me to deal with the mechanical or rational element in the situation. I am as much interested as you or anyone else in the other type of theory—historical, institutional, sociological, political, moral, anthropological, if and so far as it can be done. But looking the facts in the face, how far is that, 'really'? As a matter of fact, I am becoming more sceptical about the whole project as I work with it, and not less so. The theory of history seems to me an admirable wilderness in which to get completely lost. (emphasis in the original)

In summary, Knight (1935) suggests that he understood the unique characteristics Ayres attributed to technology in his institutional approach. For Ayres, technological advancement always meant improvement. Thus, in Ayres's institutionalism, we find a technological determinism, which would become a source of criticism. Ayres, for his part, understood Knight's criticism as a miscomprehension of the role played by capital, technology, and cumulative change. As the previous section highlighted, Knight was silent on Ayres's criticism of capital. However, even if we take Ayres's criticism on capital to be correct, it does not mean that Ayres's explanation of the dynamic of technology, which generates capital equipment and surplus in industrial products, is right. Hence, Ayres did not understand Knight's key contribution to his institutional approach: an early criticism of technological determinism.

V. FINAL REMARKS

This paper emphasized the importance of Deweyan-Veblenian thinking in Ayres's criticism of the emergence of a new mainstream view in economics. Ayres affirmed that he did not understand price theory because he considered it of no practical importance. However, he was worried about the inculcation of the ethics that market equilibrium theories may have on the community at large. Ayres criticized the new mainstream economists' treatment of capitalists' interests and the absence of differentiation between capital and land. Capital was not considered to have an instrumental meaning, which was an issue central to Ayres's criticism. He saw the risk of a naturalization of the role of capitalists by the new mainstream. By emphasizing capital dynamics, Ayres introduced the key issue of a nascent Ayresian interpretation of Veblenian institutionalism—the central role of technology in economic development. Although Knight did not appreciate the institutionalist notion of cumulative change, he introduced an important criticism of what would become the ceremonial-instrumental dichotomy by critiquing Ayres's view of technological determinism.

It is important to address the fact that, despite this paper offering a possible interpretation of a 1930s debate between two leading mid-twentieth-century economists, Ayres's and Knight's differences mean that part of their 1930s discussion can be understood as being "lost in translation." Knight explains it better than we do: "I find it as hard as usual to see what you are driving at, and it is this fact, that professional intellectuals so typically cannot talk one another's language, or actually don't seem to live in the same universe" (letter from Knight to Ayres, 22 January 1935, Clarence Ayres Papers, Box 3F290). Ayres says something similar in a letter to Knight (15 January 1935, Clarence Ayres Papers, Box 3F290). Ayres writes that after reading Knight (1935), their (Ayres's and Knight's) differences "were squarely met to an extraordinary degree."

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