

## 1: CiteSeerX "Citation Query Causality in Economics

*Causality in Economics* by John R. Hicks New York: Basic Books, Inc., , pp. xii, *Causality is an unlikely topic for a book authored by sir John Hicks.*

Resources Sir John R. Hicks, One of the most important and influential economists of the twentieth century, the trail of the eternally eclectic John Richard Hicks is found all over economic theory. Under the encouragement of Lionel Robbins and others, he used his magnificent proficiency in many European tongues to absorb the economics treatises of Continental Europe. The precepts of that book had already been announced elsewhere. In his famous paper with R. Allen , Hicks introduced the Slutsky decomposition of demand into substitution and income effects, defined substitution and complementarity clearly and reacquainted English-speaking economists with the derivation of demand curves with the use of indifference curves and budget constraints and the equation between marginal rates of substitution and relative prices. His review article on "Monopoly" introduced the concept of "conjectural variations" as a way of uniting various theories of imperfect competition , but it was really his first and last stab at this subject. On the macroeconomics side, his article on Knightian theory and his article on the business cycle under the influence of Hayek were his first macroeconomic ventures - both exhibiting the L. His "Suggestion for Simplifying the Theory of Money" was a bold call for the integration of money and value theory - away from the simplistic Quantity Theory and towards a more choice- theoretic version along Walrasian lines. It is notable that his work on money was independent of his work on the business cycle: This faith was tested upon the appearance of J. It was in that same paper that the concept of a " liquidity trap " was introduced. It was Manchester that Hicks put the final touches to his magnum opus. Hicks wove his different strands of thought into Value and Capital Much of modern microeconomics and general equilibrium theory has its roots in this book. His "Suggestion" and his work on Keynes , found their way into the macroeconomic section - particularly in the discussion on liquidity preference and loanable funds theories of interest. He also developed the concept of " temporary equilibrium " defined by a sequence of Hicksian "weeks" with expectations dividing them that had been employed by the Stockholm School. He attempted a formulation of capital along Swedish- Austrian lines, but with less success. In it, he introduced what has now become known as the " Hicks Compensation Criteria " of ordering allocations. Hicks left Manchester in and returned to Oxford , initially as a fellow of the graduate-oriented Nuffield College, but from as Drummond Professor of Political Economy succeeding H. Henderson and the associated fellow of All Souls Hicks took early retirement in , in exchange for a research fellowship at All Souls, yielding the Drummond Chair to R. Hicks was knighted in Although having produced a popular textbook Social Framework, and been engaged in all sorts of policy-oriented endeavours, Hicks continued his advance in macroeconomics through the s, turning this time to growth and cycle theory. Still intrigued, he continued to concentrate on issue of equilibrium and disequilibrium growth paths. His encounter with the von Neumann growth model and the related work by Samuelson and Solow , yielded his remarkably clear article exposition of "Linear Theory" and, most importantly, his article on the von Neumann turnpike. In this second magnum opus, Hicks hammered together his previous work on Keynesian, Harrodian, von Neumann and capital theory, with a good sprinkling of Lindahl , into an attempt at a comprehensive re-examination of growth theory. His taxonomy - dividing models into fix-price and flex-price models - led him to further concerns, particularly the issue of the "traverse" the movement from one growth equilibrium to another. The first part of Capital and Growth was reworked and republished as Methods of Economic Dynamics in He addressed this in with his Critical Essays on Monetary Theory. There Hicks attempted a similar clarification and reworking of different theories of money. Sensing that these theories were not all quite right, he decided to fish for a better concept of money in economic history, giving us his remarkable Theory of Economic History and his posthumous Market Theory of Money , which stressed the then-novel concept of a credit theory of exchange. After a foray, Hicks turned to Austrian economics and single-handedly attempted a resurrection of Austrian capital theory in his book, Capital and Time. It was an attempt at formalizing an Austrian theory of capital which included both fixed and circulating capital. He then changed

tack again and turned to exploring some important methodological issues which had been gathering during his work on growth and capital. The first was time - and notably, the concept of irreversibility of time and causality in time. This was the body of his contribution to the Georgescu-Roegen festschrift and also his book, *Causality in Economics. An explanation* and elsewhere , , Hicks denounced the pretence, method and theory of the very Neoclassical-Keynesian Synthesis he had helped create and pointed the way to new developments along more Post Keynesian lines. These and other works on methodology and the history of economics dominated the rest of his life. How is one to assess an economist whose legacy runs as wide and deep as that of John Hicks? But Hicks was for the most part a lone thinker, part of every school and thus part of no school. If any, his school was "economics". Hicks himself claimed to have created no new economics but simply to have spent his life understanding, formulating and channeling the ideas of the Continental and Keynesian schools and his own historical, philosophical and practical reflections. In a sense, he may have been right - but he analyzed and extended them in a meaningful and challenging way and thus transformed economics in the process. In this sense, no economist before or since Hicks, has achieved such "Olympian" scholarship. John Hicks was a professor at Oxford for most of his life and shared the Nobel prize in with another rare and valuable specimen, Kenneth J. The Nobel Committee could not have chosen a better pair.

## 2: REVIEW OF JOHN HICKS'S CAUSALITY IN ECONOMICS

*Hicks discusses causality in general and then applies his reasoning to economics. His arguments are not easy to grasp but they are not so complex that no one will be able to understand them except for a few people.*

Goudzwaard Introduction The broad setting of this article is how Christians view economic life today. Two aspects of this call for remark straight away: Views about economic life vary massively among Christians. These views range from complete indifference to significant interest on the one hand, and from complete acceptance to sometimes total rejection on the other. They are not, or are only very indirectly, related to the profession of Christian faith. These two aspects are, of course, interrelated. If Christians are not aware of any direct connection between their faith and their perception of economic life, their opinions will be very diverse, and any point of common orientation will be missed. At the same time, however, this observation raises intriguing questions: Is the Biblical revelation silent about economic life, and the way it should be perceived? These questions are of great practical importance, including in the area of education. What kind of curriculum should Christian schools use when dealing with economics and socio-economic issues? Can existing economic textbooks be used without any problem, or do we need a different approach? And what could possibly be said by Christian teachers about this subject? What does the Bible say about economic matters? The answer to the first question - whether the Bible has anything much to say on economic matters - is, in my opinion, strongly in the affirmative. I have at least three important arguments to support this. The Old Testament The Old Testament gives a great deal of information on economic life through some of the some clear statements of the prophets - for example, on issues such as the needs of the poor, the necessary care for the land, good wages for completed labour, and the use and misuse of capital. Next to that, the Torah includes in nuce a complete economic order, giving the outline of a societal economic system, which has a very interesting consistency all of its own. This consistency is focussed upon realizing a number of purposes at the same time. But its principles and purposes are not without implications for our present economic life. The household includes not only the land, but also those who are working on the land and living from its fruits. The good steward oikonomos gives them their food in time. Oikonomia is even related to the Eschaton, the Return of the Land lord, who comes back to his own property, asking us, as stewards, to render account. A steward oikonomos can therefore also fail or become disloyal, especially if he loses sight of the interests of the landlord and his people<sup>2</sup>. There is also, in the words of Jesus, an absolute difference between the priorities of the Kingdom of God and those of the Kingdom of Mammon. The difference is too strong to be ignored by any Christian. In accordance with the Gospel of John, Chapter 1, where God the Father speaks His creation into existence by His Word Son through His breath the Holy Spirit , we are therefore able to speak of this world as created to Answer the Triune God, and it is therefore endowed with an "answer structure" Bernard Zijlstra. This world is obviously created in such a way that everything in it is in one way or another related to the multi-colored calling of mankind to answer this speaking God, in the dialogue which we call human history. Economic endowments, natural resources, the human labour potential, the possibility of technical inventions are therefore never given to us to become a goal in themselves. They are destined to be in the service of: They, too, are also destined to become an Answer in our calling to do justice and to give love Christians should therefore always have a "disclosed" view on all present social, economic and political realities - following their Lord who was the Word of God and the Answer to God in one person. I love the emphasis here that meaning in our daily social and economic life comes to us from God, not only via his mandates in creation Alpha but also from the side of the "last things" Omega - the Eschaton being the end and fulfillment of history. Christians who think and act as if this domain of their life is neutral, or that it belongs to the private realm, or who reduce the Biblical message to no more than an urgent plea to work hard, are simply holding an unbiblical opinion. So what then is the origin and background of such a common attitude? Here, in my opinion, we have to look primarily at the role and influence of economic science, at economics as it is usually taught and as it has crept into the hearts and minds of us all even if we are not aware of it. Standard economic science is built on a very closed worldview, which upholds the dichotomy between faith and science in a

highly artificial way. Economics as we know it can even be seen as a direct offspring of Enlightenment thought, which almost continually guaranteed a kind of scientific neutrality for all sciences along with the social sciences, getting rid of all kinds of religious critique and other so-called normative or metaphysical "overtones". My point is that we have all inherited that kind of scientific escapism in our bloodstream and mind. This may be a sharp statement, even a kind of accusation, so it may be worthwhile looking carefully at the reasons for it. The history of economic thought Let us first take a quick look at the history of economic thought itself. In medieval times economics was a kind of sub-division of Ethics, and so open to all types of normative statements in the context of the well-being of the whole of human society. In the time of the Renaissance also economic thought was changing. It substituted its serviceability to the doctrine of the church for a submission to the goals of the courts and the governments in order to realize the greatest possible accumulation of money gold and silver. Economic thought, however, took a new turn at the beginning of modern capitalism, around From that moment, the goals of the study of "political economy" became far less partisan. They were increasingly related to the desire to contribute to the material well-being of the population as a whole. But even Adam Smith, who wrote the main book about this subject his famous inquiry into the causes of "The Wealth of Nations" did so as professor of social ethics! He was therefore not afraid of making economic judgments upon what in his learned opinion was "good" or necessary. Yet in his work we also find the beginnings of another perspective. It is the approach which tries to frame or mould economic thought increasingly to the natural sciences, with their admirable high standards of objectivity and measurement. This is understandable, because not only had natural science in the 18th century already led to fantastic new discoveries Newton was called "the light of the world", though he himself was a humble Christian, but it had also clearly shown that dealing with reality in mechanical-mathematical terms was a powerful instrument, which could lead to the formulation of important new scientific laws - laws which had never been found or could never have been found in the context of a limited organic or just theological view on reality. Adam Smith is the first economist who tries to understand economic life mechanically, as a functioning mechanism. And according to his friend David Hume, the result was excellent: In this way a new perspective was opened for Economics, which gradually became a type of real science as respectable, for instance, as Physics: In the XIX century, the mechanical worldview began indeed to dominate all economic-theoretical reflections. But an enormous problem soon posed itself. A stone always falls according to the law of gravity, but a consumer will not always buy more if the market price goes down. Consumers and producers are living beings, and therefore never fully predictable in what they do. However, the new concept of science asked for just those determinate results and predictable outcomes, derived on the basis of objective measurements! So what was to be done? Was it necessary simply to forget that economics could ever just be a natural science, but that it was and had to be a social science, more oriented to understanding than to a full explanation of human economic behavior? That, however, would have meant that value judgments could still enter, and that the theory would not have been entirely free from the influence of metaphysics or different kinds of religious beliefs. Or was it necessary to maintain the so-called objectivity and neutrality of economics at all costs? This decision is, and always has been, a choice which in itself is not value-free. For here different views on humanity, society and theory clash with each other. The outcome of the debate was that the so-called "positive" and mechanistic view prevailed over the "normative" and more historical view. But this choice carried severe consequences! The blueprint for a solution dictated that that if determinate outcomes are to be attained, with objective laws in economic thought in every case and at all costs, a solution must be found for the insecurity and whimsicalities of human behavior as such. Only two possibilities are available. The first is to internalize security, and the second is to externalize insecurity. You either have to make your theory immune to insecure outcomes, by presupposing a type of human being who is predictable and secure in all that he or she is doing so internalizing security and determinateness in your theory, or you have to build up a type of economic theory, in which everything which causes insecurity or indeterminateness is removed from your own scientific domain so to say externalized by declaring it to be of a non-economic nature - as an issue properly studied by other sciences, or merely subject to probability-calculus. The first possibility was chosen by John Stuart Mill, who invented the homo economicus: He is secure and predictable and so, therefore, are the consequences of his actions. The theory

now becomes determinate again - but the problem is that economic reality itself can easily escape from your theory! For if people act differently from the homo economicus, and they often do, then the theory has nothing to say. So we see that economic theory, especially around , began to follow the other line. It is the line of the externalization elimination of all forms and types of insecurity. A so-called "circle of data" is invented, a whole series of "given factors" for the economist. To this data belongs, for instance, the preferences of the consumers: Also the political and legal order is taken as previously known, together with the present state of technology and the size and capacity of the population. Everything which could possibly make the conclusions of the theory indeterminate is shifted by economic theory to the data-circle as the big asylum ignorantiae of economics, the bidding place of all forms of ignorance. Also the word "circle" is indicative of how closed is the theoretical worldview which arises here. This circle of data, so to speak, surrounds what is fully determinate and measurable and therefore can be "explained" - which boils down to no more than all the movements of prices and quantities within the market-mechanism. The real markets are, one could say, stripped from all aspects of reality outside their mathematical and mechanical functions, to become fully determinate in their outcomes. So the new economic neo-classical theory gets its shape - the economic theory which still dominates economic thinking to this very day. Let us look at that question very carefully, for it could be that we see parallels, reminders of our own present world and of our own present ways of thinking - particularly if we are sincere Christians. To put it differently, this worldview could also be very similar to the world as it functions today, as well as the world as we have learnt to see it - but which may, in both cases, be an entirely different world seen from the viewpoint of the economy concept seen in the Scriptures. In the following paragraph, I will try to mention three basic characteristics of this new artificially created world. A lack of responsibility and accountability The first characteristic of the economist is that in his world the question of responsibility or accountability for economic problems or evils is no longer asked. To understand this, we only have to look at what happened to the place of the concept of causality in Economics. In his book on this topic<sup>7</sup>, Nobel-prize winner John Hicks gives an intriguing explanation of what happened to economic analysis when, as he says it, "the eighteenth century looking at causes and effects in a theologico-legal manner" could no longer be accepted. That was what he calls "the old causality", in which "every event must either be the act of some person, who was thus responsible for it, or it must be an "Act of God" That concept of causality had to go. It gave rise, for instance, to the debate "about the moral quality of supernatural actions", like the big earthquake at Lisbon idem. But, so Hicks It was the old association between Causality and Responsibility which had to be rejected. Causality is a matter of explanation; but when we explain, we do not necessarily praise or condemn Economics, ever since that day, has been committed to the New Causality. To evade questions of a "supernatural" nature, to become a science which really could "explain" without any reference to God or belief, Economics chooses the type of causality which in relation to economic problems refrains from asking the "Who?"

### 3: Besprechung von John R. Hicks: Causality in Economics, Oxford: Blackwell

*When I was introducing my book about Economic History I could claim that, although I am no historian, I had read a good deal of history; in introducing this one I can make no corresponding claim. When I was an undergraduate student, I read the philosophical classics, such as they were given to us in.*

I am grateful to Noah for drawing our attention to it. Much of the modern debate between classical and Keynesian economics is framed around equilibrium theory. In the red corner is a class of reactionary equilibrium theorists who are blind to the reality of mass unemployment. In the blue corner, is a class of enlightened new Keynesians who are champions of the unemployed. These progressives recognize that nominal rigidities prevent the labor market from equating demand and supply and the obvious remedy is large-scale fiscal expansion. The failure of the reactionaries to recognize the obvious merits of this argument must be due to their political motivation. This is a simplistic description of reality, not just because both new-Keynesian and new classical economists span both sides of the political aisle. It is also simplistic because it misunderstands the modern meaning of the equilibrium assumption. Using general equilibrium theory, broadly defined, one can build sensible equilibrium models where high unemployment exists as one of many possible labor market equilibria. Most of the macro-economists I know, and all of the macro-economists I respect, learned a huge amount from the rational expectations revolution, initiated by Robert Lucas. That observation was a game changer that is still playing out in the research community and its implications were not, in my view, fully understood by early adopters of classical economic models. Most modern macroeconomic theorists use dynamic stochastic general equilibrium models, DSGE, for short. The disequilibrium assumption favored by Hicks came under attack in the 1970s because simple models of that era could not account for the simultaneous occurrence of inflation and unemployment. The main tool used to understand macroeconomics in was the IS-LM model. That model was widely perceived to be unsatisfactory, in part, because it is purely static. The IS-LM model does not explain the interaction of prices and expectations and, for that reason, it is an unsatisfactory model if one is interested in understanding inflation, which is an inherently dynamic process. That problem was solved by the introduction of mathematical techniques that were unavailable to previous generations of theorists. Those techniques were introduced to macroeconomics in the rational expectations revolution. The rational expectations revolution made two changes to the temporary equilibrium agenda as it was understood in 1970. First, rational expectations theorists insisted that markets are in equilibrium every period. According to this approach, the demand equals the supply for every commodity; including labor. Second, rational expectations theorists insisted that expectations of future prices are correct in the sense that no agent is systematically fooled into making decisions that he subsequently regrets. Early versions of rational expectations models also assumed a single agent, perfect competition, linear technologies, etc. These early equilibrium models, the RBC model of Kydland and Prescott is a good example, carried with them a very strong implication. There is nothing that government can do to improve the welfare of the agents in the model. In the language of economics; these models have a unique equilibrium and that equilibrium is Pareto Optimal. Larry Summers, for example, tells us that the classical vision of economics is nonsense because it disregards some basic facts; primary among them is the existence of large-scale unemployment that persists for decades. But accepting equilibrium theory as an organizing principle does not require that we accept all of the assumptions of the RBC model. The problem with classical models is not the equilibrium assumption; it is the optimality implication. The idea that the current state of affairs is socially optimal is so obviously at odds with the existence of mass unemployment that it has given equilibrium theory a bad name. In very simple models, equilibrium and optimality are the same thing. But that conclusion is a very special implication of some equilibrium models. It does not hold in general. That idea is key to reconciling Keynesian economics with equilibrium theory. The sceptical reader will reasonably ask how equilibrium can be consistent with unemployment. Surely the existence of unemployment requires us to assume that the demand and supply of labor are not equal to each other. By modelling the process by which unemployed workers are matched with jobs, we can use search theory for which Dale Mortensen, Chris Pissarides and Peter Diamond

were awarded the Nobel prize to understand how unemployment varies over time. To understand the persistence of high unemployment, we do not need to assume that prices are sticky or that markets are in disequilibrium. Mass unemployment does not occur because markets are in disequilibrium: Mass unemployment occurs because the market equilibrium is not socially optimal. Recognizing that simple fact has important implications for our understanding of the current state of the world economy. This post would not be complete without commenting on a claim that Paul Krugman recently made on his blog in the New York Times. Aspiring up-and-coming economists may be able to publish empirical papers in this vein, but theoretical analyses are likely to be met with giggles and whispers. The challenge for aspiring up-and-coming economists is to reconcile the observation of persistent mass unemployment with the tools of economics by building on the foundation provided by the recent work of DSGE theorists. The combination of search theory with temporary equilibrium theory offers the tools to do just that. No-one would use an abacus when offered a computer. For the same reason, it would be unwise for an aspiring up-and-coming economist to cling to the static IS-LM model when there are alternative tools available that are better suited to the task of explaining financial crises. To the unsuspecting natural scientist reading this blog -- economists use the word equilibrium to mean that plans of agents are internally consistent. Instead, they are typically described by a stationary probability measure.

## 4: Causality in Economics by John R. Hicks

Hicks \_\_\_\_\_ I CAUSALITY IN ECONOMICS CAUSALITY IN ECONOMICS John Hicks Is economics a science? This distinction - guished and provocative book calls into.

Chendrayan See discussions, stats, and author profiles for this publication at: The user has requested enhancement of the downloaded file. All in-text references underlined in blue are added to the original document and are linked to publications on ResearchGate, letting you access and read them immediately. That is, a property essential to causes and effects is that of priority in Time in cause before effect<sup>2</sup>. Hicks seemed to have been contradicting his statement in his book. At another place, however, Hicks did not at all reject the Sequential Causality as is obvious from his statement below: For instance, among other causes, he agreed that advancement of science<sup>7</sup>, formulation of decisions, executions of decisions<sup>8</sup>, effect of a change in demand on production<sup>9</sup>, perception, negotiation, the act of varying the amount of land and labour<sup>10</sup>, improvement and transmission<sup>11</sup> take time. This means that Hicks first rejected that causes need not precede effect and this implies that cause and effect occur at the same time. In other words, the cause takes only zero amount time to give effect. When they are so interpreted, there is no reason why they are not simultaneous. Ta and Tb Electronic copy available at: And it is with this definition of Ta and Tb lies the crux of the matter. Hicks was absolutely right in saying that Time is continuous. However in order to measure the quantum of time we generally define certain units of time to our convenience and name them as seconds, minutes, hours, days, months, years etc. In order to give a unique identity to a particular quantum of time we give identities or names with reference to the chronometric frame, for example March 09, , Hours. Thus chronometry or calendar gives us a standard frame of reference to a unique quantum of time be it a moment or a period and events with others. That is, when we say a particular event happened at hours of March 09, , we state that that event occurred some n number of, say hours ago with reference to a particular point in time, usually the present. Thus, three concepts such as the past, the present and the future arise. A date in a calendar is nothing but a name to identify a particular quantum of time. This will be clear when we see the division of time into various units like years, months, seconds, milliseconds, Pico seconds, etc, Now, the event happened at hours of March 09, means that it happened after hours and before hours. That is if we take a second as the dividing line for hours. However in measurement of time, a second, if treated as a moment, can be defined as a period or range in terms of milliseconds whereas a millisecond, if treated as a moment, can be defined as a period or range in terms of microseconds and ad infinitum. With the light of these divisions, a second or moment of time, at one level, becomes a range or period at another level. Thus, a a point on a time-line is also a miniature of yet another time-line or a time period only because of divisibility of Time. For instance i though a day is a moment or point of the time-line of years, the day itself become a time-line or period consisting of the points of hours, minutes and seconds. In turn, the seconds a moment on a time-line of days will become periods in the time-line of milliseconds and so on so forth. Conversely b will be evident from the following. The time-line of milliseconds becomes a point on a time-line of seconds that, in turn, becomes a point on a time-line of minutes and ad infinitum. Therefore it can be said that all moments are periods and all periods are also moments depending on the level of measurement. We can, therefore, conclude that a moment as is usually referred to in Economics, is also a period of time. Hence the distinction between a moment and a period warrants more careful attention and analysis. For, this has been the chief cause of confusion in Electronic copy available at: However, this inference has a serious and interesting implication for the concepts of stocks and flow whose definitions basically lie on the definitions of periods and points respectively. That is stocks and flows are also only relative and stocks become flows and vice versa depending on the definition of the time units. Infinite sub-divisions of time units make the difference between stocks and flows disappear. Time plays the role of i a fundamental unit of measurement, ii a causal factor in the production function,<sup>15</sup> and iii as a standard of reference i. Time is also an implicit but necessary cause always, a necessary exogenous cause, and an inseparable cause whereas time cannot cause any effect alone The argument is this: Let a cause C take a non-zero or positive amount of time in the year to give the effect E , for simplicity let E be the only effect of

C, in the same year For, according to Hicks definition of Contemporaneous Causality, the C and E took place in the same period, The source of his disagreement seems to lie on the role of time, as pointed out at the start. That is, Hicks was focusing the third role of time as standard of reference, i. That is, Hume seems to have perceived the role of time as a cause, though he did not explicitly say so. This is consistent with the necessary condition for causality put in 1 and with real experience. Moreover, at many instances, Hicks himself agreed that it takes positive amount of time to give the effect as pointed out earlier. Then what was it that Hicks was trying to reject? Then ii can and should be rejected at once as it is impossible as per reality and 1 and 2. For, even the fastest thing, light, takes a non-zero and positive amount of time to travel any distance, short or long. As our experience with reality teaches us, none of the economic causalities or activities is faster than light leading to the inevitable conclusion that all economic activities take a non-zero and positive time to occur. This is partly a hangover from what I have called the Old Causality; but it is not chiefly on that account that it has to be resisted. As I began by indicating, Ta and Tb do not have to be moments; they can be periods, even quite long periods. When they are so interpreted, there is no reason why they should not be the same. That is by defining Ta and Tb to be quite very long periods, instead of moments, they become contemporaneous! Let one unit of time be ten millenniums! Cause as Effect and Effect as Cause Hicks raises his first point in the following words: From this point of view, the causal relation referred above can be written as: The relationships could be interpreted as following: Let us apply this causality to an example. It can be stated that the amount of investment I determines the amount of employment N that determines the quantum of production Q that, in turn, determines the national income Y. Now the Income ultimately results in Investment continuing the chain of causalities just explained. Put it Page 6 of 11 differently I investment precedes N employment precedes Q production precedes Y income which in turn precedes the resulting I and so on so forth as in Figure According to 1 and reality it can be seen that the acts of investing, employing the factors of production, producing and realizing income take good amount of time. Thus the causal chain in Figure-2 can be rewritten by incorporating the time-cause as in Figure Secondly I effect precedes Y its cause. This point will be clear if we see the causal- chain in a system as in Figure-4 where Cs and Es refer to the causes and effects respectively. For the sake of convenience let us start with the cause C1. C1 causes an effect E1 which becomes the cause of E2 which in turn becomes the cause of E3 which becomes the cause of E4 which becomes the cause of E5 which now becomes the cause of E or C1. Figure-4 shows the causal- chain that can be fragmented into a number of links. For instance Causality between C1 and E1 can be the first link, the link between E1 and E2 can be the second link and so on so forth. According to 1 , Figure-4 can be modified to include Time as a cause as in Figure The inference from the above discussion is that the same variable may play the role of both an effect of a cause and cause of another effect. That is a cause becomes an effect and an effect becomes a cause and this Hicks seems to have not perceived. One example for this causal-chain will clarify the point: The underlying question is which the cause is and which is the effect. Chicken let us call it C1 gives birth to an egg let us call it E1. Now chicken C1 caused egg E1. Or the Chicken C1 preceded the egg E1. Now Chicken C2 comes out of egg E1. Then C2 gives birth to E2 and the chicken- egg chain can be drawn infinitely. Now if looked superficially on the name-plane chicken precedes the egg and egg preceding the chicken is impossible. But if viewed realistically from the causal-plane it will be obvious that C1 precedes E1 which as C2 precedes E2 which as C3 precedes E4 and so on so forth. It will be obvious that neither E1 nor E2 nor E3 nor E4 can cause C1 since it could have come only from its own unique cause even if all the chickens and eggs look similar. According to Hicks Economics is specially a study of Causalities. The immediate cause of an economic effect is, nearly always, decision by some one, or it may be the combination of Page 7 of 11 decisions that were made by different people. But it is not enough in economic analysis, to refer to the effect to the decision; we are also concerned with the reasons for the decisions, the causes of the decisions. Thus even the simplest case of sequential causation in Economics has two steps in it: With respect to the decision, the prior step is one of formulation, the posterior step is of execution. Each of these steps may take time, so the total lag between cause and effect consists of two parts, prior and posterior. There is a third lag as well which belongs to c i. For example it takes time a to decide to invest, b to invest and c to realize the returns on the investment. Do we not require an answer, or something in the way of an answer, to some

supplementary questions? First, what is to be supposed to have happened between the two dates? Secondly, why did just so much time elapse between them, neither more nor less? It is evident that these are related questions: But unless we can provide some acceptable answer to these supplementary questions, our statement of causality, of sequential causality, is not well established. If a very specific example of the birth of a child is taken for analysis, the second question relates to the pregnancy period. This is normally ten months. However this period may vary by days across people. Then the first question is why should a child take exactly that child-specific pregnancy time and neither more nor less.

### 5: Causality in economics / John Hicks | National Library of Australia

*John Hicks was a professor at Oxford for most of his life and shared the Nobel prize in with another rare and valuable specimen, Kenneth Arrow. www.enganchecubano.com The Nobel Committee could not have chosen a better pair.*

His contributions have shaped the core theories of rational choice and human welfare, value and money, capital and growth. In John Hicks, we see economic theorizing at its most fundamental, almost formative, stage. In his writings, economic theorizing strives to achieve, and succeeds in maintaining, a balance between the requirements of analysis and the explicit recognition of the relevance of history and institutions. Theories are focusing devices that may be effective in bringing to view certain causal patterns, while leaving other possible causal patterns aside. This makes theories essential to economic analysis as some concentration of attention is a necessary condition for the identification of a causal relationship. The same approach makes multiple theories possible, however. Indeed, the possibility of distinct theoretical frameworks is a most natural consequence of changes in the concentration of attention see Scazzieri, b. His approach to economic theorizing as a scholarly pursuit is accordingly multifaceted. He would have certainly subscribed to the well-known sentence by Johann Wolfgang Goethe: Hicks was especially skilled in identifying similarities and points of convergence among distinct theoretical frameworks. In his contribution, economic theorizing includes the consideration of the conditions that make specific theoretical frameworks outdated. In this connection, Hicks maintained that recognition of the limits of economic theory might be an important source of theoretical innovation. In this sense, we may say that Hicks was a standard-bearer of the idea that there cannot be a unique theory at the center of economic discourse. The intellectual agenda of John Hicks shows a remarkable mix of continuity and change see also Baumol, This is partly due to the tolerant disposition that was characteristic of Hicks as a theorist. In this case, as noted by Peter Bauer, Hicks uses a combination of two distinct methods: Hicksian Economics for the Twenty-First Century Edited by Roberto Scazzieri, Amartya Sen and Stefano Zamagni Excerpt More information Between theory and history 3 the relevance of particular theories is likely to change as we move from one set of historical circumstances to another. Similarly, attention to historical record is necessary, but this does not imply that the theorist should be unduly restrained by statistical uniformities. In short, he is acutely aware of the importance of hierarchical structures both among theoretical concepts and among facts. Hicks is well known for his willingness to recognize that views or theoretical frameworks that he had previously endorsed ought to be discarded due to the need to switch to different concentrations of attention. At the same time, there is in Hicks a surprising continuity underlying an intellectual output of more than sixty years. This is especially clear if one looks at the linkage between decisions and time, and at the related issue of the stage structure of the production process. Hicksian Economics for the Twenty-First Century Edited by Roberto Scazzieri, Amartya Sen and Stefano Zamagni Excerpt More information 4 Roberto Scazzieri and Stefano Zamagni terms, presupposes a difficult balancing act between the pursuit of a particular objective and the representation of a specific set of intertemporal constraints. In this way, historical inevitability is questioned on two different grounds. First, human goals and decisions reflect not only the state of the world when the decision is taken, but also the unfolding set of constraints met by any given decision in the course of its realization. Second, constraints are associated with loopholes that make human decisions central to the actual course of events. That is why, according to Hicks, the widespread practice of reducing time to a mere dimension of space cannot be accepted as wholly satisfactory in economics. The causal structure associated with decision-making and with the implementation of decisions has been central to his theoretical work. In this connection, the relationship between time and economic decisions provides the background to contributions ranging from value and welfare theory to the theory of capital, from monetary economics to the methods and theories of economic dynamics see Hamouda, John Hicks was primarily a theoretical economist, but he never turned his interest in abstract concepts into one-sided attachment to any particular scheme of theory. He never allowed any particular point of view to conceal the variety of possible theoretical frameworks, however. At the same time, he was convinced that theoretical schemes are essential to the understanding of economic reality. Hicks acknowledged the need for

theoretical pluralism. He was not an eclectic economist, however. He adopted a pragmatic view of theorizing Hicks, b, This led him to think that theories are context-dependent and that the switch from one situation to another may sometimes require the introduction of a different theoretical framework. The switch from one context to another could make a previously accepted theory and causal structure no longer useful under the different conditions. This explains the persistence of fundamental theoretical schemes in the midst of changing circumstances and academic paradigms. As a matter of fact, Pantaleoni in a passage carefully read and annotated by Hicks had written: Ancient logicians distinguished between a *causa fiendi* and a *causa essendi*, then between an *ordo fiendi* and an *ordo essendi*. In modern language, we have reserved the term *cause* to phenomena related to one another by a necessary order of occurrence in time, and the term *joint occurrence* of conditions to phenomena of necessary and contemporaneous co-ordination. A causal process is not a reversible one. On the contrary, a system of co-ordinated conditions may be looked upon starting from any one of its points; it has no order; it shows simultaneity. Now, economic phenomena show sometimes the former, sometimes the latter property. In any practical case, it will be easy not to get lost. There are amongst phenomena associated with an *ordo fiendi*, that is, phenomena associated with a causal connection, many in which we cannot overlook the reaction that the effect generates upon the conditions from which it was born, reaction such that a new effect has the above reaction as one of its causes. The following may be a scheme of such an order of phenomena: And this process will continue. To sum up, we shall have three classes of phenomena: See, for example, the three collective volumes edited respectively by Wolfe, Hagemann and Hamouda, and Puttaswamaiah Hicksian Economics for the Twenty-First Century Edited by Roberto Scazzieri, Amartya Sen and Stefano Zamagni Excerpt More information 6 Roberto Scazzieri and Stefano Zamagni the simple kind, in which the relationship of cause to effect is not difficult to disentangle; iii phenomena that also present an *ordo fiendi*, but in which it is necessary to account for the reaction that the effect produces upon its generating causes, thereby modifying such causes in their subsequent operational phase. Indeed, it may be argued that, according to Hicks, such a distinction is precisely the critical element explaining why economics is at the edge of history and science. This epistemic structure leads to an interesting implication as to the history of economic theory. Economics is a social science, and a particular kind of social science, in that it is concerned with the rational actions, the calculated actions, of human beings, and with their consequences. This has the result that those whom we study can hear what we say. We may speak to each other in our private languages, but private conversations are no more than goods in process: That is what, in my view, the history of economics is for. We need to know the history of our concepts in order to know what it is that we are handling. Causality as interdependence or causality as joint occurrence makes identification of responsibility difficult see above. On the other hand, causality as sequential determination may conceal the possible joint determination of outcomes as any given outcome may follow from a plurality of causes. In other words, old and new causality are often intertwined to such an extent that to privilege one type of causality over the other may obscure the causal processes at work in any particular situation. The double vision advocated by Hicks could be seen as a partial solution to the above problem. This is because human beings take decisions starting with a specific set of pasts and futures see, for instance, Hicks, a: As a result, different positions in time are likely to be associated with different decisions and different patterns of sequential causality. Identification of sequential causality is often too demanding in terms of the amount and quality of the information required, however. For example, we may lack adequate knowledge of the causal loops that can turn intermediate effects into reinforcing or mitigating influences relative to the original cause. The *ex ante* approach to causality deals with decisions not yet made. This makes *ex ante* causality closer to the identification of the joint occurrence of conditions than to the reconstruction of a historical sequence of events see Hicks, a. In short, there are a plurality of ways in which time can be conceptualized in economics, and each one answers peculiar cognitive questions. This implies that the dynamic method does not exist. Indeed, there are two wide varieties of dynamics: In the former, expectations play a fundamental role in explaining the economic process. i. The former discusses in an informal way the idea that economic processes may be analyzed by examining the logical implications of discontinuous change for example, the switch to a different method of production, or to a different institutional set-up. The latter introduces a

theoretical framework for the investigation of this type of shock. According to Hicks, human beings are to a large extent free from binding constraints if we consider them as rational economic agents. Here Hicks is close to the standard view that, under given conditions, economic choice may be defined as a deliberation about how to use available means when a variety of different alternatives are feasible. It also entails recognition that the positive freedom associated with the actual options that any given agent may be able to choose is bounded by past choices and by their outcomes. The two questions are clearly different, even though the answers to them may overlap. Agents may be equally rational and subject to similar or altogether identical resource constraints. Nonetheless, the outcomes associated with their choices may be radically different as long as any given choice has a different past and is thus inserted in a different set of causal connections over time. This time dependence of economic causality has an interesting implication as to the irreversibility of economic actions. This is because choices may be reversible as long as the same individual or group is subject to broadly similar boundary conditions. The principle of substitution works on that basis. Limited reversibility points to the causal determinacy of economic choices under conditions of freedom of choice. This means that, according to Hicks, choices are neither inevitable nor completely reversible. History not only economic history is shaped by human freedom to choose; but the causal influence of any given choice is specific to its timing and to the causal processes initiated in its past. To conclude, agents may choose the same alternatives, and yet the outcome of their choice may be radically different from one agent to the next depending upon their past choices and complementarities over time.

*John R Hicks set out in his book 'Causality in Economics' primarily to refute Hume's Principles of Causality (i.e. Cause always necessarily precedes effect) by introducing a new concept.*

Sequential Only the more important categories and subcategories will be considered in what follows. Not surprisingly, Hicks quickly rejects the old concept of causality of the seventeenth and eighteenth centuries and adopts the newer concept associated with the names Hume, Kant, and Gibbon. The major subcategories under New Causality are Strong and Weak causality. This distinction seems to permit the separation of statements that use the "if and only if" from those that only use the word "if. Subsequent discussion implies that causation is of the separable variety unless there are causal relationships among the individual causes. Separable causality is dealt with in a symbolic form only. Hicks considers the case in which two causes, A1 and A2, along with an effect, B, are actually observed. Hypothetical alternatives are then constructed in which either A1 or A2 do not occur and in which neither A1 nor A2 occur. The reader soon discovers that this exercise is not going to shed much light on the issue of causality in economics. He also sees that the technique is of limited use, since the inclusion of additional causes will result in an unmanageable number of rows and columns. The symbolic treatment offered in this part of the book could be greatly simplified and generalized by the use of Boolean algebra, a technique used inter alia in the design of digital computer circuitry. Boolean algebra, it might be noted, would not respect the boundary between separable and non-separable causality. More importantly, the adoption of this mathematical technique would make it obvious that Hicks is really offering a method of systematically itemizing possible concatenations of causal relationships. He is not providing a method for establishing causality. But his discussion of these causal relationships does not seem to hinge on their newness or weakness or on their non-separability. The focus instead is on the time dimension of the cause and the temporal relationship between cause and effect. The three subcategories under non-separable causality static, contemporaneous, and sequential correspond to three perspectives on time: Static causality describes the relationship between the economic determinants of a persistent state of affairs. This is the sort of causality found in classical i. But here, like elsewhere in the book, the reader will be disappointed if he is looking for some criteria by which to choose between, for example, the labor theory of value, subjective value theory, or some eclectic theory. Hicks is not really concerned with what constitutes causality. He only notes that there are some theories in which both cause and effect are eternal. Contemporaneous causality, in which both cause and effect span a finite period of time, manifests itself in Marshallian partial equilibrium analysis and in formal Keynesian theory IS-LM analysis. Hicks claims, for instance, that Keynes was the first economist to fully appreciate the relationship between the current supply of capital goods and the existing capital stock. Those who have read the exchanges between Hayek and Keynes in the early thirties will surely be amazed if not dumbstruck by this claim. Hicks does hit upon an important point about analyzing periods in which expectations are assumed to be constant. Unless the economy is in long-term equilibrium, expectations about the future are bound to change during the period as actual occurrences differ from earlier expectations. Thus, the assumption of static expectations in period analysis is invalid. This is a theme that has been so emphasized by Ludwig Lachmann in recent years that it has virtually become his middle name. Interestingly, Hicks solves this problem by conceiving of expectations as a range of outcomes rather than as the mean outcome. So long as the actual outcome is somewhere within the range, expectations about the future are not modified. This is the exact solution that Lachmann proposed and discussed at length in his *Capital and Its Structure*, which was published in Static causality finds its expression in static analysis; contemporaneous causality in period analysis. These categories give way to sequential causality when the analysis is concerned with disequilibrium phenomena. In his discussion of this third kind of non-separable causality, Hicks reaffirms that economics is about individual decisions. This should get the attention of the methodological individualists. Unfortunately, the multitude of individual decisions is too soon allowed to be engulfed by huge aggregates. The economy is divided into three sectors: To keep the time element from disappearing altogether, Hicks transplants the well known policy lags of textbook Keynesianism into each of the three sectors; that is,

the process of decisionmaking in each sector is characterized by recognition lags, prescription lags, and impact lags. The level of aggregation implies that there is no need to distinguish between, for example, a decision to produce consumer goods and a decision to produce capital good. Further, the treatment of the timing of decisions implies that all decisions within a sector are made in unison. This unlikely melding of Patinkin aggregates and Keynesian policy lags is offered as a new research paradigm. These ideas, however, are not new to those familiar with the writings of the Austrian school. Hicks introduces what he calls the "Economic Principle," a principle much broader than the profit motive conventionally conceived. Individuals tend to perceive opportunities and take advantage of them. Unfortunately, Hicks introduces this principle in his discussion of static causality, where successful entrepreneurship is taken for granted, instead of in his discussion of sequential causality, where the entrepreneurial process could have been investigated. Happily, time as a factor of production or as the fourth dimension in a meta-static model gets no play at all. The focus instead is on the crucial distinction between the past and the future, There is a recognition that statistical data are unique to the past and that econometric techniques are of limited value in predicting what will happen in the uncertain future. Hicks will command some sympathy from Austrian-oriented readers when he deals head on with methodological issues. There are hints of a categorical distinction between the natural sciences and the social sciences when it comes to choosing an appropriate methodology. Hicks echoes Mises when he tells us there are no constants in economics. He notes that economists nevertheless seek to imitate scientists, who do have constants on which to anchor their inductive theories, but he questions first in the preface and again in the final pages of the book whether they should. Least-squares parameters and confidence intervals are understood to serve only a decorative function in many cases. Mises is echoed again when Hicks draws the distinction between class probability and case probability. The fact that statistical theory is derived on the basis of class probability and is then applied to phenomena in economics which involve case probability makes Hicks a little uneasy. Why is it that these ideas do not seem to gel into a more palatable whole? Why, then did he opt for the "New Causality" or the Enlightenment? This rejection was accomplished in the Austrian school by retaining the older concept of causality and dividing "Natural Causality acts of man ," or what might be called "Human Action," into two subcategories. One category is concerned with the intended consequences of human action; the other with the unintended consequences. Hayek has argued that the entire science of economics falls within this latter category. That is, if it were not for the fact that the individual transactions of a large number of people give rise to an undesigned order, economics would have not subject matter, The recognition implicit or explicit of the nature of economic phenomena has caused almost every Austrian economist from Menger to Rothbard to defend the older concept of causality against the newer concept that is detached from human actions and human decisionmaking.

### 7: Roger Farmer's Economic Window: Old Keynesian Economics and Equilibrium Theory

*Sir John Hicks has written a methodological tour de force. Despite some blemishes and some omissions, this slim volume helps explain to the intelligent layman and the mainstream economist why economics, despite the establishment of awarding Nobel Prizes in the last decade, has become in the words of.*

### 8: Causality in economics / [by] John Hicks | National Library of Australia

*An interesting topic written in a brief and dense form that insists the reader be quite comfortable with probability, statistics and applicable schools of economic thought that only a handful of readers may possess.*

Multimodal Transport Rules Art of the engineer 71. Mapping Maternal Subjectivities, Identities and Ethics, by Sigal Spigel and Lisa Baraitser Cheryl Lavender Moans, Groans and Skeleton Bones (Musicivity) Civilising capitalism Personnel administration in education American literature in Spain. Nitrate Therapy and Nitrate Tolerance Accountability v. adequate funding : which policies influence adequate preparation for college? Glenda Dr Character before content Paul M. Pietroski The promise of the foreign Nanotechnology and its Impact on Employment 87 Ancient Roman Women (People in the Past, Rome) Classification, theoretical [! and practical Pregnancy Log Julie Convisser Immunology of Pregnancy (Chemical Immunology) The Alps (Great Mountain Ranges of the World.) Changing the odds through quality early care and education Death and beyond in the Eastern perspective MERCHANTS MANUFACTURERS BANCORP. Electric utility planning and regulation Gargoyles and Medieval Monsters Coloring Book How to motivate every employee The lost Gospel of Mary Liquid-Liquid Interfaces Theory and Methods Developments in American Politics 5 A history of belize in 13 chapters That first kiss and other stories Conclusions consequences for democratic accountability. Welfare reform and abstinence education Discovering Shakespeare Sub-tropical rambles in the land of the Aphanapteryx; On Truth, Human and Divine Molecular assays to investigate chromatin changes during DNA double-strand break repair in yeast Scott Ho Chapter 2 Creating a poster with Microsoft Word. Art of Medical Consulting Subsurface instalations and outside force damage protection 82-129 Theory of political decision modes Sets, relations, functions The possibility of the impossible