Austrian Economics and The Other Canon.
The Austrians between the <i>activistic-idealistic</i> and the <i>passivistic-materialistic</i> traditions of economics.
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Austrian Economics and The Other Canon.
The Austrians between the activistic-idealistic and the passivistic-materialistic traditions of
economics. 1
1. Typologies of Economic Theory and the Two Canons
2. The Two Cannons Contrasted as Ideal Types
3. Canonical Battles: The Head-on Confrontations
Canonical Methodenstreit 1: Misselden vs. Malynes (1622-23)
Canonical Methodenstreit 2: Anti-physiocracy vs. Physiocracy & Adam Smith (ca. 1770-
<u>1830)</u>
Canonical Methodenstreit 3: The American System vs. The British System (19th Century
United States) 19
Canonical Methodenstreit 4: The Historical School vs. Marginalism (1883-1908)20
Canonical Methodenstreit 5. The US Institutional vs. The Neoclassical School (20th
<u>Century</u>)
4. The Austrians and The Other Canon
5. The 20th Century Closing of the Economic Mind
6. Understanding Human Cognition: Carl Menger and the King who wanted to make the
Perfect Map36
7. Relevance Lost: The Parallel Paths of Austrian and Neo-Classical Economics

1. Typologies of Economic Theory and the Two Canons.

We have recently argued that when focusing on very long-term longitudinal trends in economics, two ideal types of economic theory appear to have co-existed parallel over an extended period of time. These ideal types can be seen as constituting two separate *filiations* – to use Schumpeter's term – and they come into occasional methodological clashes. Werner Sombart fittingly calls the first tradition **activistic-idealistic**, a tradition born with the Renaissance. The second type of economic theory he calls **passivistic-materialistic**, a tradition having its origins with Mandeville and Adam Smith and solidifying as the 'a-priori method' with David Ricardo. The purpose of this paper is to outline the characteristics of the two traditions – the tradition behind today's mainstream and 'The Other Canon' – and to discuss the position of Austrian economics in this context.

In most sciences, periodical and radical *gestalt-switches* terminate old theoretical trajectories and initiate new ones. In a Kuhnian paradigm shift the scientific world moves from a situation when everybody knows that the world is flat, to a new understanding when everybody knows that the world is round. This happens in a relatively short time. Lakatos' idea of 'degenerating scientific research programmes' that gradually shift to 'progressive' ones convey a similar idea. In this respect economics is different. In economics the theory that the world is flat has been living together with the theory that the world is round for centuries. We describe this apparent lack of paradigm shifts in economics by the co-existence of these two long-term parallel *filiations*, where weight and influence periodically tilt back and forth between two alternative *Weltanschauungen*.

Today evolutionary economics – based on a tradition founded by the Austrian Joseph Alois Schumpeter – represent the most important challenge to the mainstream. However, evolutionary economics has, in our view, so far had an unnecessarily limited scope. This tradition now focuses relatively narrowly on innovations, including neither Schumpeter's own interest in financial matters, nor addressing to any extent the broader issues of uneven economic growth and employment on a world level which are, at their origin, intimately tied to Schumpeterian mechanisms. And, by bringing simple 'Schumpeterian' variables into mainstream equilibrium models, his message is being domesticated and made innocuous. As in the case of Keynes, the mainstream again shows a great ability to usurp, absorb, and subdue threatening alternative theories.

As already indicated, the two different canons are based on fundamentally different *Weltanschauungen*. The lines of the two canons can be traced back to the period when the term economics was first used, to ancient Greece³. While today's standard economics is based on a mechanistic and barter-centred tradition, Renaissance economics – The Other Canon – is dynamic activistic-idealistic, and production-centred. The first tradition belongs to what Werner Sombart calls *ordnende Nationalökonomie*, which is concerned about *organising* the economic sphere. The second tradition is what Sombart calls *verstehende Nationalökonomie* ⁴,

¹ Reinert, Erik & Arno Daastøl, 'The Other Canon and Uneven Economic Development: Renaissance Economics as an Immaterial and Production-based Canon in the History of Economic Thought and in the History of Economic Policy', in Reinert, Erik (editor) *Evolutionary Economics and Income Inequality*, Aldershot, Edward Elgar. 2000.

² Sombart, Werner, *Der Moderne Kapitalismus*, Vol. 2, *Das Europäische Wirtschaftsleben im Zeitalter des Frühkapitalismus*, München und Leipzig, Duncker & Humblot, 1928, p. 919.

³ See Reinert & Daastøl, op. cit.

⁴ Sombart, Werner, *Die Drei Nationalökonomien*, München & Leipzig, Duncker und Humblot, 1930.

what Nelson and Winter refer to as *appreciative economics*. The first tradition typically explains Man's economic activities in terms of physics (of dead matter), the second in terms of biology (of living matter *and* of Man's wit and will). The first tradition is represented by Malthus' *dismal science*, the second by Christopher Freeman's *Economics of Hope* 6 - by the *never-ending frontier of human knowledge*.

Present mainstream economic theory places itself solidly in a canonical sequence descending from the Physiocrats, via Adam Smith and Ricardo to the neo-classical tradition beginning with Jevons and Marshall. The sequence has been made clear to generations of economists as the 'Family Tree of Economics' featured on the inside back cover of many editions of Paul Samuelson's *Economics*. The alternative canon in economic theory runs parallel in time with the tradition of Samuelson's 'Family Tree'. We have named this alternative type of theory The Other Canon or Renaissance Economics. The latter because never before and never after have the values which this canon represents dominated the world picture as they did during the Renaissance. The mainstream canon is clearly a product of the next philosophical period – The Enlightenment – which was in opposition to Renaissance values and outlook on important matters. Rationality and individuality during the Renaissance was based on an image of man as a spiritual being: creative and productive. The Enlightenment had a more materialistic understanding of human rationality and individuality: mechanical and consuming. Today the Renaissance canon – The Other Canon – tends to disappear in the history of economic thought, as this branch of economics more and more concentrates on the predecessors of neo-classical economics.

In 19th Century United States, The Other Canon dominated economic policy and the land-grant universities, while the standard canon dominated at the Ivy League universities. Typically Cornell University, as the only university that was both land-grant and Ivy League, was for a while teaching two kinds of economics: the British system and the American System. In all presently wealthy nations, an economic policy based on The Other Canon has served as a *mandatory passage point* in the history of economic policy. We would claim that the absence of the **History of Economic Policy** as a branch of Economics to some extent explains why The Other Canon has been brought into virtual oblivion.

As already mentioned, Renaissance economics is optimistic: the *never-ending frontier of knowledge* stands in sharp contrast with Malthus' *dismal science* and with the production theory of mainstream economics, the foundation of which is still today fundamentally a formalisation of Ricardo's static corn economy. Here the main agents of change, new knowledge and the entrepreneur, are both absent. In the middle of the Cold War, in 1955, Nicholas Kaldor made the extremely important point that 'the Marxian theory is really only a simplified version of Ricardo, clothed in a different garb'⁷. It was not at all obvious to most people at the time that the two political extremes were based on what were really only nuances of the same basic Ricardian economic theory. Only long after the fall of the Berlin Wall, in the late 1990's, arguments stressing the similarities of the two political extremes have again surfaced in books by Stiglitz⁸ and Hodgson⁹.

⁵ Nelson, Richard and Sidney Winter, *An Evolutionary Theory of Economic Change*, Cambridge, Mass., Harvard University Press, 1982.

⁶ Freeman, Christopher, *The Economics of Hope*, London, Pinter, 1992.

⁷ In 'Alternative Theories of Distribution', in *Review of Economic Studies*, Vol. XXIII, No. 2, 1955-6. Reprinted in Kaldor's *Essays on Value and Distribution*, Glencoe, Ill., Free Press, 1960, page 211.

⁸ Stiglitz, Joseph, Wither Socialism?, Cambridge, Mass., MIT Press, 1994

⁹ Hodgson, Geoffrey M, Economics and Utopia, London, Routledge, 1999.

The cold war between what were in effect two versions of Ricardian economics led to the present crisis of The Other Canon. As it now is, the healthy Galbraithian balance of countervailing powers between the standard Anglo-Saxon theory and The Other Canon no longer exists. A hundred years ago the need for a balance of induction and deduction was generally recognised in all schools. On this matter the neo-classical founder Alfred Marshall approvingly quotes the historicist Gustav Schmoller as saying that 'Induction and deduction are both needed for scientific thought as the right foot and left foot are both needed for walking'¹¹. Induction has to a very large extent been lost, making mainstream economics tilt very heavily towards the left side of the brain. The essentially mechanical neo-classical economics now dominates the field, and – as we shall see – the prominent 'Other Canon' aspects of both of Alfred Marshall's early neo-classical economics and of Carl Menger's early Austrian economics have largely been lost.

Several observers have in fact pointed to the similarities between the economics of Alfred Marshall and of Carl Menger. ¹² In this paper we argue that the theories that these two economists founded – neo-classical and Austrian – suffered a gradual and parallel loss of their Other Canon aspects over the course of the 20th Century.

The following are main characteristics of Other Canon economics: The fundamental cause of economic welfare is Man's productive creativity and morality; the *immaterial* production factors. In order for these ideas to materialise, capital is needed. Capital *per se* is in this tradition sterile. The Renaissance tradition can be contrasted with mainstream using Schumpeter's description of the economics of John Rae - a 19th Century US economist of the Renaissance canon: 'The essential thing is the conception of the economic process, which soars above the pedestrian view that it is the accumulation of capital *per se* that propels the capitalist engine'¹³. Whereas classical economics focused on barter, exchange, and the accumulation of material capital, the Renaissance tradition focuses on production based on human creativity. For this reason Renaissance economics emphasises education, science, incentives, and entrepreneurship.

Mainstream economics defines its origins in the French school of **physiocracy** ¹⁴ (i.e. 'the rule of nature'), where value is created by Nature, and harvested by Man. In Renaissance economics value originates through Man's wit and will (i.e. 'ideocracy' – 'the rule of ideas'). During the mechanisation of the world picture, which took place during the materialistically oriented Enlightenment, the defenders of the Renaissance tradition were the anti-physiocrats. ¹⁵

At the time most economists have stressed the importance of having access to different theories at different levels of abstraction, see e.g. Aschehoug, T. H, Socialøkonomik: En Videnskabelig Fremstilling af det Menneskelige Samfunds Økonomiske Virksomhed., Kristiania (Oslo), H. Aschehoug & Co. (W. Nygaard), 1903-1908, 3 Volumes. This was also one of Schumpeter's most important comments to the Methodenstreit in Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie, Leipzig, Duncker & Humblot, 1908.
 Marshall, Alfred, Principles of Economics, 9th (variorum) edition, London, Macmillan, 1961, p. 29.
 Foss, Nicolai, 'Austrian and Post-Marshallian Economics. The Bridging work of George Richardson', in Foss, Nicolai and Brian Loashy (Editors). Economic Organization, Canabilities and Co-ordination. Essays in Honour.

¹² Foss, Nicolai, 'Austrian and Post-Marshallian Economics. The Bridging work of George Richardson', in Foss, Nicolai and Brian Loasby (Editors), *Economic Organization, Capabilities and Co-ordination. Essays in Honour of G.B. Richardson*, London, Routledge, 1998. Erich Streissler looks at the common roots of Menger and Marshall in 'The Influence of German Economics on the Work of Menger and Marshall', in Caldwell, Bruce J. (Editor), *Carl Menger and his Legacy in Economics*, Annual Supplement to HOPE, Volume 22, Durham, Duke University Press, 1990.

¹³ Schumpeter, Joseph A., *History of Economic Analysis*, New York, Oxford University Press, 1954, p. 468.

¹⁴ Of which Schumpeter says: 'Its analytical merit is negligible, but all the greater was its success', Schumpeter, *op.cit.*, p. 175.

¹⁵ In Germany the main anti-physiocrat was Johann Friedrich von Pfeiffer, in France Abbé Mably, Accarias de Serrionne, Necker, Forbonnais, Jean Graslin, Abbé Galiani - a Neapolitan envoy at the Court of Paris - and, most

The Renaissance tradition is holistic and idealistic - not atomistic and materialistic. Nevertheless, at the core of the system is the individual, set in a complex web of synergetic interrelations. The beneficial effects of these interrelations first became evident in Renaissance towns giving birth to the Renaissance expression of the **common weal** (*il bene comune*, *das Gemeinwohl*) - a synergetic understanding of Society as being more than the sum of its parts. ¹⁶

The growth of towns and cities brought these synergies into evidence. Towns permitted communication that unleashed individual freedom, creativity, diversification and synergies that together created unprecedented wealth. This was the fundamental observation of one of the earliest best-selling books in economics, *Delle Cause della Grandezza delle Cittá* ¹⁷ written by Giovanni Botero (1543-1617). The English translation, published in London in 1606, is entitled *The Cause of the Greatnesse of Cities*. This argument was to be discussed at great length by Antonio Serra in 1613. ¹⁸

Later nation-building in this tradition tried consciously to reproduce the synergetic benefits of towns on a larger, national scale. ¹⁹ In order to achieve this, the sciences of law and administration had to be consciously cultivated and promoted. Renaissance economics emphasises the crucial role of nation-states and the duties of 'the ruler' - i.e. government - not only to regulate in order to provide incentives for the creation of welfare (in the old tradition of law and economics), but also the duty of 'the ruler' to initiate projects creating a *demand* for knowledge-based production. Thus, Renaissance economics has a strong emphasis on institutions. After all, the key enabling institutions of capitalism – like for example patents, banks and standards – were products of Renaissance Italy.

At the core of the Renaissance Other Canon is the observation that **some economic activities produce higher welfare than others**, a static and non-systemic observation of welfare being *activity specific*. (As if today: lawyers make more money than people picking lettuce; therefore a nation of lettuce pickers will be poorer than a nation of lawyers). Very soon — before 1500 — this argument is extended into one of synergies: Some economic activities are seen as being at the core of **systemic synergies** that produce and spread welfare locally or nation-wide ('where there are many people working with machines, **also the shopkeepers** are wealthier than in other places, where machines are not used'). There are degrees of understanding how these systemic synergies develop into **positive feedback systems**, but the top performance is that of Antonio Serra in 1613, who has a description of Venice as a true autocatalytic system, where *increasing returns* and *diversity* - the latter expressed *as the number of different professions in a nation* (i.e. *degree* of division of labour) - are identified as being at the core of virtuous circles which generate wealth²⁰. Naples is the example of the

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critical of them all: Simon-Nicolas-Henry Linguet. For a list of works by German anti-physiocrats, see Humpert, Magdalene, *Bibliographie der Kameralwissenschaften*, Cologne, Kurt Schroeder, 1937, p. 1031-1032.

¹⁶ The description of these synergetic effects is clear in Giovanni Botero (1589) and even more so in Antonio Serra (1613). To Serra these 'virtuous circles' have their origins in the increasing returns found in the manufacturing sector, which are absent in agriculture. Machiavelli is also clear on this point: 'Il bene comune è quello che fa grandi le città.'

¹⁷ Rome, Vicenzio Pellagalo, 1590.

¹⁸ Serra, Antonio, *Breve trattato delle cause che possono far abbondare li regni d'oro e argento dove non sono miniere*, Naples, Lazzaro Scoriggio, 1613.

¹⁹ For a discussion of this, see Reinert, Erik, 'Catching-Up From Way Behind. A Third World Perspective on First World History', in: Fagerberg, Jan et. al., *The Dynamics of Technology, Trade and Growth*, Aldershot, Edward Elgar, 1994.

²⁰ For a discussion of this, see Reinert, Erik, 'The Role of the State in Economic Growth.', in *Journal of Economic Studies*, vol. 26, No. 4/5, 1999.

opposite effect in Serra's system, because the production of raw materials is not subject to increasing returns. We also find Adam Smith in *The Wealth of Nations* asking himself: Why is there so little division of labour in agriculture? On the other hand agriculture is to him the only 'natural' activity. Smith fails, however, to make the connection that the 'unnatural' imperfect competition is a product of a sophisticated division of labour. Today these synergy-based arguments are found in the works on increasing return by authors like Paul David, W. Brian Arthur²¹, and James Buchanan. ²²

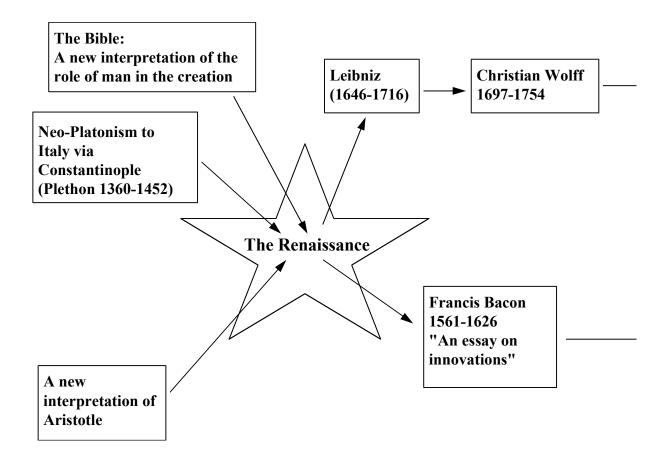
An integral part of the nation-building strategy was a notion that a national market had to be **created** - that such a marked did not appear spontaneously. For this reason, communication and state-initiated investments in large-scale infrastructure projects hold a very strong position in the Renaissance tradition, from the dams and irrigation canals of the Sumerian kingdoms via Colbert's canals to Kennedy's Interstate road projects. Using modern terms, we could say that the strategy of Renaissance economics was to create **perfect competition** within the national borders and **dynamic imperfect competition** in the export trade. Contrary to the common preconceptions of economics before Adam Smith, 'Competition was often artificially fostered (nationally)...in order to organise markets with automatic regulation of supply and demand'²³. It was commonly agreed that a national competitive advantage had to be created in knowledge-intensive activities before free trade could be established with the most advanced nations.

²¹ Arthur, W. Brian, *Increasing Returns and Path Dependency in the Economy*, Ann Arbor, University of Michigan Press, 1994.

²² Buchanan, James and Yong J. Yoon (editors), *The Return to Increasing Returns*, Ann Arbor, University of Michigan Press, 1994.

²³ Eli Hecksher quoted in Polanyi, Karl, *The Great Transformation* (1944), Boston, Beacon Press, 1957, p. 278.

FIGURE 1



This new world view of the Renaissance released enormous creativity in all sciences and arts – the new intellectual freedom gave us Leonardo da Vinci, Michelangelo, Rafael, Kepler and Copernicus. In all arts and sciences the people of the Renaissance still stand out in a heroic light in history, all but the statesmen and economists of the Renaissance. Still today these economists of the Renaissance, who made the modern world possible, come across as the gold-loving caricature that Adam Smith created of his mercantilist predecessors. These economists, however, are the true founders of evolutionary economics. In the spirit of the Renaissance Francis Bacon - Queen Elizabeth's Lord High Chancellor - wrote, around 1605, *An Essay of Innovations*. Bacon became the 'scientific leader of the new industrialist'²⁴ - urging the use of science to produce manufactured goods and profits. Up until and including James Stuart's 1767 two-volume *Inquiry into the Principles of Political Economy*²⁵ the term 'innovation' is frequently used, only to disappear with Adam Smith.

Bacon's spirit has often been evoked in order to argue against the mechanical world view of post-Ricardian economics. Richard Jones²⁶, the founder of the English historical school, and John Rae²⁷ were two economists who – as a reaction to the Ricardian system – consciously attempted to 'Baconise' economics again. Also Carl Menger quotes Francis

²⁴ Crowther, J.G., *Francis Bacon. The First Statesman of Science*, London, The Cresset Press, 1960, p. 97.

²⁵ London, Millar and Cadell.

²⁶ See Rashid, Salim, 'Richard Jones and Baconian Historicism at Cambridge', *Journal of Economic Issues*, Vol. XII, No. 1, March 1979, pp 159-265.

Bacon against what we today would call 'physics envy' when he criticises 'the attempts to carry over the peculiarities of the natural-scientific method of investigation uncritically into economics.'²⁸

Bacon's emphasis of scientific knowledge was very similar to that of Friedrich List more than 200 years later: 'Industry is the mother and father of science, literature, the art, enlightenment, useful institutions and national power... The greater the advance in scientific knowledge, the more numerous will be the new inventions which save labour and raw materials and lead to new products and processes.'²⁹ In this sense, there is a continuity of argument from the Renaissance, through Francis Bacon and Friedrich List to today's evolutionary economics that emphasises the role of Research and Development and of innovations for economic welfare. As to natural resources, List says that 'industrialisation will greatly increase the value of a country's natural resources.'³⁰ This thinking was the basis for economic policy in the resource-rich nations which have achieved general welfare: Canada, Australia, and New Zealand. A manufacturing sector - although one which was not seen as being competitive with that of England - was needed in order to transform the natural resources of a nation into national wealth.

The two types of economics that we have outlined should be seen as 'Ideal Types' in the Weberian sense. Through time there are several distinguishing features that clearly separates the two canons. A basic one is their different conceptions of the origin of wealth:

- ⇒ In the *mainstream canon* wealth originates from *material sources*: from nature, i.e. land, physical labour and capital. The accumulation of these assets takes place through *trade* and war. This accumulation is *static*, i.e. more of the same.
- ⇒ In the *Renaissance Other Canon* wealth originates from *immaterial sources*: from culture, i.e. Man's creativity and morality. The accumulation of assets takes place through *innovations* cumulatively changing Man's stock of *knowledge* and his *tools* (technology). This accumulation is *dynamic*, i.e. more of something new and qualitatively different. ³¹

A second major distinguishing feature between the two canons is:

- ⇒ In the *mainstream canon* the focus of analysis is *barter*, *consumption* and *accumulation* ('Man the Trader and Consumer').
- ⇒ In *The Other Canon* the focus of analysis is on *production* and *innovation; productivity* being the pineal gland bringing together mind and matter ('Man the Creative Producer').

²⁷ Rae, John, Statement of some new principles on the subject of political economy, exposing the fallacies of the system of free trade, and of some other doctrines maintained in the "Wealth of Nations", Boston, Hilliard, Gray & Co., 1834.

²⁸ In the foreword to the *Grundsätze*: Menger, Carl, *Grundsätze der Volkswirtschaftslehre*, Vienna, Wilhelm Brauchmüller, 1871. In the English edition of the work, Menger's Latin quote from Bacon is translated as: 'similitudes and sympathies of things that have no reality, ..they describe and sometimes invent with great vanity and folly.' . *Principles of Economics*, Glencoe, Ill., Free Press, 1950, p. 47.

²⁹ List, Friedrich, *The National System of Political Economy* (1841), London, Longman, 1904, pp. 66-67. ³⁰ *ibid.*, p. 79.

³¹ For a discussion of this, see Reinert, Erik and Arno Daastøl, 'Exploring the Genesis of Economic Innovations: The Religious Gestalt-switch and the Duty to Invent as Preconditions for Economic Growth, in *European Journal of Law and Economics*, Vol. 4 (1997), pp. 233-283.

A third and fundamental difference between the canons is:

- ⇒ The *mainstream canon* is since the Aristotelian idea of the complete independence of politics from all other aspects of social life fundamentally atomistic and mechanical in its analytical approach. The unit of analysis is the *atomistic* unit (in economics: the individual).
- ⇒ The Other Canon since Plato's Republic is fundamentally **holistic**, organic and synthetical (from *synthesis*) in its approach (*die Ganzheit*). The units of analysis include both individuals and their institutions in time and space.

At a very fundamental level, the two canons of economics are founded on two different views of how Man differs from other animals. We shall let Adam Smith represent the material and barter-based canon, and Abraham Lincoln represent Renaissance economics - the immaterial and production-based canon:

Adam Smith:

'The division of labour arises from a propensity in human nature to.. truck, barter and exchange one thing for another..It is common to all men, and to be found in no other race of animals, which seem to know neither this nor any other species of contracts...Nobody ever saw a dog make a fair and deliberate exchange of one bone for another with another dog.'32

Abraham Lincoln:

"..Beavers build houses; but they build them in nowise differently, or better, now than they did five thousand years ago..Man is not the only animal who labours; but he is the only one who *improves* his workmanship. These improvements he effects by *Discoveries* and *Inventions*...."

We also see a consistent pattern of application of the two canons in a *catching-up* framework:

No nation-state³⁴has ever gone through a transition from poverty to affluence without practising a long period of the immaterial and production-based canon as the fundamental guide for economic *policy*. This is true in France (where a modern starting point for policy could be Louis XI, (1461); and Montchrétien, Jean Bodin, and Sully for theory), England (where a logical starting point for policy is the reign of Henry VII, in 1485), in Germany, the United States (Benjamin Franklin, Alexander Hamilton, Daniel Raymond, Henry Clay, Matthew and Henry Carey, E. Peshine Smith) and Japan (Meiji Restoration). Today we see the production-based economic strategy at work in East Asia. The Third World is essentially an area that has experienced neither a Renaissance-type creative awakening nor any production- and knowledge-based economic canon. Figure 2 shows the family tree of The Other Canon.

³² Adam Smith, Wealth of Nations (1776), Chicago, University of Chicago Press, 1976, p. 17.

³³ Abraham Lincoln, Speech of the 1860 Presidential Campaign.

³⁴ With the possible exception of small city-states, like Hong Kong or San Marino.

On the practical policy-level the two canons produce conflicting recommendations. This is due to the fact that whereas in the Renaissance theory different economic activities offer different potentials for achieving national welfare, in the barter-centred theory all economic activities become qualitatively 'alike'. If anything, in the standard canon superiority is traditionally awarded to agriculture, which is more 'natural' a) because it delivers Nature's produce, and b) because competition here is more 'natural'; atomistic and 'perfect.'

It is really only after 1960 that the economic policies of Smith and Ricardo have completely won the day in economic policy. The economists of alternative traditions who were crucial to the economic **policy** are almost completely left out of today's history of economic thought. The last history of economics to give a good coverage of the theories behind the 19th Century economic policy was Ottmar Spann's *Die Haupttheorien der Volkswirtschaftslehre*, which first appeared in 1911. By 1936 this book had reached 24 editions and a total of 120.000 copies printed in German.³⁵ There were translations to several languages, and, interestingly, the UK edition was published under the title *Types of Economic Theory*, flagging Spann's awareness of diversity: that there are, indeed, different types of economics, not only one monolithic canon.

Of course, we do not imply that the world is a binary one, where all economists belong either to one tradition or the other. On the contrary, a key characteristic of several important economists is their at times schizophrenic allegiance to both sets of theory. One example of this is the conflict between the Marshall whose 'Mecca of the economist' lay in economic biology ³⁶ and the Marshall of the appendices to his *Principles* which were deeply steeped in 'physics-envy'. In order to create the equilibrium that characterises today's physics-based standard economic theory, Marshall paradoxically had to restore to a *biological* metaphor. Increasing returns had been an important argument for industrial policy ever since Antonio Serra in 1613 ³⁷all through the 19th Century. In order to reconcile the existence of increasing returns with equilibrium, Marshall uses a lengthy metaphor of firms growing and dying like trees in the forests.³⁸ This evolutionary growth process supposedly counteracts the tendency towards uneven accumulation caused by increasing returns to scale.³⁹ The argument that killed all future biological analogies in neo-classical economics was a biological analogy. This biological analogy was important in making economics into what it is today, a profession where a physics-inspired equilibrium is the central gestalt.

Seen from this point of view, also Marx was caught between two paradigms which at one level are mutually exclusive. In terms of his emphasis on technology and economic dynamics, Marx - like Schumpeter - is a clear member of the Renaissance production-based canon. Marx' and Schumpeter's visions have a common basis in the German economic tradition. In Anglo-Saxon economics these two economists come across as extremely original, seen from the German side they are both firmly rooted in that alternative canon. The one aspect of Marx' theory which decidedly belongs to the Anglo-Saxon canon is his use of Ricardo's labour theory of value. The labour theory of value is out of place in the German tradition where entrepreneurship, ideas, knowledge, leadership, and management necessarily contribute importantly to the value added created by physical labour.

³⁵ The US edition is *The History of Economics*, New York, Norton, 1930.

³⁶ Marshall, Alfred, *Principles of Economics*, London, Macmillan, 1890, p. iv.

³⁷ Serra, Antonio, *Breve trattato delle cause che possono far abbondare li regni d'oro e argento dove non sono miniere*, Naples, Lazzaro Scoriggio, 1613.

³⁸ Marshall, *op.cit.*, pp. 315-316.

³⁹ This problem is discussed in Hart, Neil, 'Increasing returns and economic theory: Marshall's reconciliation problem', University of Western Sydney, *Discussion Paper Series*, No. E9004, 1990.

Figure 2. Separate file, in about here

2. The Two Cannons Contrasted as *Ideal Types*.⁴⁰

STARTING POINT FOR THE STANDARD CANON:

STARTING POINT FOR 'THE OTHER CANON':

Equilibrium under perfect information and

perfect foresight

Learning and decision-making under uncertainty (Schumpeter, Keynes, Shackle)

High level of abstraction Level of abstraction chosen according to

problem to be resolved

Man's wit and will absent Moving force: Geist- und Willenskapital:

Man's wit and will, entrepreneurship

Not able to handle *novelty* as an endogenous

phenomenon

Novelty as a central moving force

Moving force: 'capital per se propels the

capitalist engine'

Moving force: New knowledge which creates a demand for capital to be provided from the

financial sector

Metaphors from the realm of physics Metaphors (carefully) from the realm of

biology

Mode of understanding: Mode of understanding:

Mechanistic ('begreifen') Qualitative ('verstehen'), a type of

understanding irreducible only to numbers

and symbols

Matter Geist precedes matter

Focused on Man the Consumer

A. Smith: 'Men are animals which have

learned to barter'

Focused on *Man the Innovator and Producer*. A. Lincoln: 'Men are animals which not only

work, but innovate'

Focused on static/comparative static Focused on change

Not cumulative/history absent Cumulative causations/'history

matters'/backwash effects (Myrdal, Kaldor, Schumpeter, German Historical School)

 $^{^{40}}$ I am grateful the co-authors of this set of ideal types: Leonardo Burlamaqui, Ha-Joon Chang, Peter Evans and Jan Kregel.

Increasing returns to scale and its absence a non-essential feature

Increasing returns and its absence essential to explaining differences in income between firms, regions and nations (Kaldor)

Very precise ('would rather be accurately wrong than approximately correct') Aiming at relevance over precision, recognizes the *trade-off between relevance* and precision as a core issue in the profession

'Perfect competition' (commodity competition/price competition) as an ideal situation = a goal for society

Innovation- and knowledge-driven Schumpeterian competition as both engine of progress and ideal situation. With perfect competition, with equilibrium and no innovation, capital becomes worthless (Schumpeter, Hayek)

The market as a mechanism for setting prices

The market also as an arena for rivalry and as a mechanism selecting between different products and different solutions. (Schumpeter, Nelson & Winter)

Equality Assumption I: No diversity

Diversity as a key factor (Schumpeter, Shackle)

Equality Assumption II: All economic activities are *alike* and *of equal*

quality as carriers of economic growth and welfare

Growth and welfare are *activity-specific* – different economic activities present widely different potentials for absorbing new knowledge

Both theory and policy recommendations tend to be *independent of context* ('one medicine cures all')

Both theory and policy recommendations highly *context dependent*

The economy largely independent from society

The economy as firmly embedded in society

Technology as a *free good*, as 'manna from heaven'

Knowledge and technology are *produced*, have cost and are protected. This production is based on incentives of the system, including law, institutions and policies

Equilibrating forces at the core of the system and of the theory

Cumulative forces are more important than equilibrating ones, and should therefore be at the core of the system

Economics as *Harmonielehre* II: The economy as a self-regulating system seeking equilibrium and harmony

Economics as an inherently unstable and conflict-rich discipline. Achieving stability is based on Man's policy measures (Carey, Polanyi, Weber, Keynes)

Postulates the representative firm No 'representative firm'. All firms are unique

(Penrose)

Static optimum. Perfect rationality Dynamic optimization under uncertainty.

Bounded rationality

No distinction made between real economy

and financial economy

Conflicts between real economy and financial economy are normal and must be regulated

(Minsky, Keynes)

Saving caused by refraining from consumption and a cause of growth

Saving largely results from profits (Schumpeter) and saving *per se* is not useful

or desirable for growth (Keynes)

3. Canonical Battles: The Head-on Confrontations.

Occasionally the two canons meet head-on in what we have labelled *Canonical Methodenstreite*. Below we describe five of these Methodenstreite:

Canonical Methodenstreit 1: Misselden vs. Malynes (1622-23)

The theoretical conflict between the forefathers of today's mainstream canon and the Renaissance canon has existed at least since the 1622-23 'English' debate between Gerard de Malynes ⁴¹ and Edward Misselden, ⁴² where Malynes represented a static theory rooted in *barter* and Misselden represented a theory centred around *learning* and *production*. Both Misselden and Malynes were Dutchmen from Antwerp working in London. In the history of economic thought, their debate is interpreted as being about exchange controls and the balance of trade. ⁴³ The controversy between the two was an 'acrimonious, even abusive' one, in which 'ink was shed like water'⁴⁴.

However, by going back to the sources, one finds that the main line of attack by Misselden against Malynes is his 'mechanical' view of man - Malynes has left out Man's 'art' and 'soul'. Misselden quotes at length a paragraph from Malynes, where Malynes reduces trade to three elements, 'namely, Commodities, Money, and Exchange' 45. Objecting to this definition,

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⁴¹ Malynes, Gerhard, *The Maintenance of Free Trade, According to the three essentiall (sic) Parts...Commodities, Moneys and Exchange of Moneys,* London William Sheffard, 1622, and *The Center of the Circle of Commerce, or, A Refutation of a Treatise,....,lately published by E.M.,* London, Nicholas Bourne, 1623.

⁴² Misselden, Edward, *Free Trade and the Meanes (sic) to Make Trade Flourish*, London, Simon Waterson, 1622, and, *The Circle of Commerce or the Ballance (sic) of Trade*, London, Nicholas Bourne, 1623,

⁴³ Schumpeter discusses the controversy between the two men in his *History of Economic Analysis*, New York, Oxford University Press, 1954, pp. 344-345. See also their respective entries in 'The New Palgrave'. In all cases these references are purely to the mechanics of money and exchange.

⁴⁴ Buck, Philip, *The Politics of Mercantilism*, New York, Henry Holt, 1942, p. 23.

⁴⁵ Misselden, op. cit., (1623), p. 8.

Misselden says: 'It is against Art to dispute with a man that denyeth the *Principles* of Art'. Misselden scorns Malynes for not seeing the difference between a heap of stones and logs and a house - because Man's productive powers and his soul, which produce the house, have been left out. A similar criticism can of course be made of neo-classical economics. Typically, after the Renaissance, the wealth of a nation was seen as lying in its capacity to produce, its 'productive powers.'

Misselden represents the acute Renaissance awareness of the enormous territory to be covered between Mankind's present poverty and ignorance, and the enormous potentials. This released enthusiasm and energy. The situation recalls Keynes' frustration with the suboptimal situation of the world under the Great Depression. Both the Renaissance philosophers/economists and Keynes were searching for the formula needed to liberate society from its obviously suboptimal position at the time. This is what Keynes called 'Salvation through Knowledge'⁴⁶. This attitude is very different from Man as the passive victim of 'two sovereign masters, pain and pleasure'⁴⁷, which is the philosophical foundation of English classical economics.

Canonical Methodenstreit 2: Anti-physiocracy vs. Physiocracy & Adam Smith (ca. 1770-1830)

The second Methodenstreit between the knowledge-based Renaissance school and the predecessor of today's standard (neo-classical based) economic theory starts in the 1770's with the rise of the Physiocratic School in France. It may be said that the Physiocratic School in some sense was a reaction to the perversion of Colbertism into a policy of indiscriminate taxation. It was also clearly a reaction of the landowners against Colbert's policy of systematically diverting resources from agriculture to manufacturing.

The physiocrats had an animalistic view of Man which was compatible with the philosophical foundations of English classical economics: '...sometimes (the physiocrats) regard man as a browsing animal, concerned only with his nourishment, the maximum production of the fruit of the earth as his social ideal.'48

The anti-physiocratic movement has received little attention in the history of economic thought. These authors, however, represented the true continuation of Renaissance economics. Interestingly, two of the main opponents of physiocracy in France were clergymen: Abbé Mably and Abbé Galiani, the Neapolitan envoy to the Court of Paris. ⁴⁹ Galiani was to take a position which in many ways foreshadowed the position of the historical school in late 19th Century Methodenstreit: 'Abstract principles are no good for commercial policy. Corn laws which are good in one time or place may be bad in another. ... The statesman who admired Colbert should not imitate him, but ask himself, "What would Colbert do if he were here now?" '50 Abbé Galiani's criticism of a very abstract and context-free theory is very similar to the reaction of Reverend Jones, against the writings of Ricardo in 1820. Richard Jones was the father of the English historical school of economics, which became very influential during

⁴⁶ Ibid., p. 102.

⁴⁷*Jeremy Bentham*: An Introduction to the Principles of Morals and Legislation, (1780), London, University Paperback, Ch. I, p.11.

⁴⁸ Higgs, Henry, *The Physiocrats*, London, Macmillan, 1897.

⁴⁹ A good description of Galiani and his unique standing in French society at the time is found in Pecchio, Giuseppe, *Storia della Economia Pubblica in Italia*, Lugano, Tipografia della Svizzera Italiana, 1849, pp. 80-86. ⁵⁰ Higgs, *op. cit.*, p. 117.

the latter half of the 19th Century. The insistence that economic theory and policy must be context-specific is a sure hallmark of Other Canon economics through the ages.

One of the main opponents of the physiocratic school⁵¹ in France was Forbonnais, who refused to admit that trade and industry are sterile. Also to Forbonnais the main agent creating wealth is Man - not nature itself: without human agency **the land itself** is doomed to absolute or relative stability. Other contemporary French opponents of physiocracy were Accarias de Serrionne, Graslin, Necker, and Linguet.

Perhaps the most ardent anti-physiocrats were found in Germany. Under the heading 'Antiphysiokraten', Humpert's bibliography of the German cameralist school lists 25 works - published between 1771 and 1832. ⁵² The best known of these works is Johann Friedrich von Pfeiffer's *Der Antiphysiokrat*. ⁵³ Pfeiffer was also the author of the most influential economic work in Germany at the time. Other strong continental opponents of physiocracy were Johann Jakob von Moser, Dohm, and Sonnenfels.

Canonical Methodenstreit 3: The American System vs. The British System (19th Century United States)

The US opposition to English classical economic theory started with Benjamin Franklin and continued with Alexander Hamilton's 1791 'Report on the Manufactures'. This *Methodenstreit* on the policy level lasted all through the 1930's, although on the theoretical level English classical economics was to be increasingly taught at the Ivy League universities during the late 19th Century. Important economists in this US tradition were Daniel Raymond, Matthew and Henry Carey, John Rae, E. Peshine Smith and many others. The last great economists of this tradition were Richard Ely and Simon Patten, who - like most US economists who studied abroad in the 19th Century - studied in Germany. After Thorstein Veblen, this economic tradition continued under the label of institutional economics. Both the general stance against Ricardian economics, and the mental affiliation with German-type economics, continued much as in the 19th Century tradition.

On the policy level, the nations industrialising in the 19th Century were to take up the example that had been set by England - and later abandoned by her when she had reached world hegemony. Economic thought and policy of all great industrial nations in their pre-take-off period share a core theme of the *activity-specific* nature of growth. Economic growth could only be achieved by including activities with fast technological change and a rapid growth in output in the nation's portfolio of industrial activities. This theme can be followed in economic writings from the early 1500 in Italy and England and France, a little later in the German cameralists. It is introduced to the United States through Alexander Hamilton and his favourite economist, the English mercantilist Malachy Postlethwayt⁵⁴. Two path-breaking

⁵¹ The anti-physiocrats are discussed in Weulersee, Georges, *Le mouvement physiocratique en France*, Paris, Alcan, 1910, vol.. 2, pp. 256-682, and in Higgs, op.cit., pp. 102-122.

⁵² Humpert, Magdalene, *Bibliographie der Kameralwissenschaften*, Cologne, Kurt Schroeder, 1937, pp. 1031-1032.

⁵³ Pfeiffer, Johann Friedrich von, *Der Antiphysiokrat, oder umständliche Untersuchung des sogenannten physiokratischen Systems für eine allgemeine Freyheit und einzige Auflage auf den reinen Ertrag der Grundstücke*, Frankfurt am Main, Schäfer, 1780.

⁵⁴ It has been shown that Hamilton knew his Adam Smith, but rejected particularly the free trade conclusion. Excerpts from Postlethwayt's *Universal Dictionary of Trade and Commerce* were scattered through Hamilton's Army pay book, see Morris, Richard B. *Alexander Hamilton and the Founding of the Nation*, New York, Dial

volumes in this school were published in 1820 by Daniel Raymond⁵⁵ and Mathew Carey⁵⁶. Heavily influences by Daniel Raymond, Friedrich List's involuntary exile in the US reinforces this already traditional way of thinking in the Germany of the Zollverein. In Meiji Japan the *doitsugaku* school - favouring the German model - came to be the most influential for the building of society, at least until 1945.⁵⁷ In Japan, after 1883, 'a stream of German teachers of political economy and related disciplines continually flowed in⁵⁸

A common thread of successful long-distance catching-up through the centuries is a shared distrust of generalised free trade until the nation is firmly established in what was seen to be the *right* economic activities - the *specific activities* which increased the nation's 'productive powers'. Through the dynamic imperfect competition (i.e. Schumpeter's 'historical increasing returns') in these specific activities, real wages could be raised: first in the 'engine' industry and subsequently spreading through the whole national labour market. In the US tradition, by adding skill to the labourer, his price or value (= wage) was increased. This tradition survived in the United States up until and including the economists who were taught by Ely's and Patten's generation. In a letter to the author, dated August 16, 1996, Moses Abramowitz comments: 'I agree in particular that the "residual" and growth in general are industry-specific. That has seemed clear to me since I was a graduate student in the Thirties and read the Kuznets and Burns books...' This certainly points to a 'filiation' between the old American school and present day 'economics of catching up'.

Canonical Methodenstreit 4: The Historical School vs. Marginalism (1883-1908)

The resounding success of Ricardian economics and its extreme laissez-faire policies during the 1840's provoked a theoretical countermovement following the political events of 1848. The international depression in1873 further increased the opposition against the classical economic tradition all over Europe. The stronghold of the opposition was in Germany, where the older historical school founded by Bruno Hildebrand – whose book was published in 1848⁵⁹ – Karl Knies and Wilhelm Roscher increasingly challenged both the theoretical foundations and practical conclusions of Ricardian economics. Later a new generation of historical economists led by Gustav Schmoller - the younger historical school – for a long time completely dominated German academic and practical economics.

Carl Menger, the founder of the Austrian marginalist school, in 1883 published his book: *Untersuchungen über die Methode der Sozialwissenschaften und der politischen Ökonomie insbesondere*. Menger had dedicated his first book to Wilhelm Roscher – the prominent German economist of the Historical School. Menger closed the preface praising recent German economics and hoping that his book 'be regarded ...as a friendly greeting from a collaborator in Austria.' The reply from Germany to his books was not friendly. Schmoller reviewed the *Untersuchungen* unfavourably in his *Jahrbuch*, and Menger replied in a small

Press, 1957, p. 285. Hamilton's view on the English classical economists was similar to that taken 80 years later by the Japanese, see Morris-Suzuki, Tessa, *The History of Japanese Economic Thought,* London, Routledge, 1989

⁵⁵ Raymond, Daniel, *Thoughts on Political Economy*, Baltimore, Fielding Lucas, 1820.

⁵⁶ His pamphlet: An Address to the Farmers of the United States

⁵⁷ Yagi, Kiichiro, 'German Model in the Modernisation of Japan', in *The Kyoto University Economic Review*, Vol. 59, No. 1-2, April-October 1989, p. 29.

⁵⁸ Sugiyama, Chuhei, and Hiroshi Mizuta, *Enlightenment and Beyond. Political economy comes to Japan*, Tokyo, University of Tokyo Press, 1988, p. 32.

⁵⁹ Hildebrand, Bruno, *Die Nationalökonomie der Gegenwart und Zukunft*, Frankfurt, Literarische Anstalt, 1848.

book entitled *Errors of Historicism* in 1884.⁶⁰ Of all the *Methodenstreite*, this – the most famous one – is paradoxically the least fundamental of them all. Menger and Schmoller essentially shared the same critical attitude towards the mechanical and barter-based English theory. Their personalities and pride clashed, but compared to Ricardian economics the two are next of kin. This *Methodenstreit* created a debilitating civil war inside The Other Canon.

Schmoller wanted theory to be empirically founded, in opposition to the English classical tradition that founded theory on introspective assumptions, and deducing far-reaching practical conclusions from these abstract structures. This practice was what Schumpeter labelled 'the Ricardian vice'. Today's standard explanation of the *Methodenstreit* generally fails to point out how similar their criticism of Ricardian economics was. The New Palgrave describes the Methodenstreit as follows: '(Schmoller) rejected Menger's deductive method for three chief reasons: its assumptions were unrealistic, its high degree of abstraction made it largely irrelevant to the real-world economy, and it was devoid of empirical content. The theory was therefore useless in studying the chief questions of importance to economists; how have the economic institutions of the modern world developed to their present state, and what are the laws and regularities that govern them? The proper method was induction of general principles from historical-empirical studies'. However, reading through Menger's *Errors of Historicism* with the perspective of what economics has become in the year 2000, it becomes clear how 'Other Canon' both Schmoller and Menger in fact were. We shall return to this argument in Chapter 4.

The historical school was deeply steeped in the German tradition of embracing *die Ganzheit* - the whole. This search for *die Ganzheit* forced the historical school to cross the boundaries into what in the English tradition were other - and to them unrelated - academic disciplines. In the German historical tradition it would be complete nonsense to exclude any information relevant to the question asked - be it from the realm of climatology, pedagogy or any other branch of human knowledge. In the German tradition economics was a science that integrated all the others. However, it is not at all clear that Menger disagreed with this. Menger drew up a picture – a model – of the economic forces at work, but, like Schumpeter later, he insisted that history was an 'indispensable' tool for the profession.

To Menger, the problem of the historical school was that they suffered from a kind of a 'case-study syndrome': they collected raw materials for a theory, but never got around to establishing a proper theory. This criticism is similar to that of Thorstein Veblen. However, this criticism is more appropriate to some members of the historical school than to others. It is indeed crucial to define what is meant by 'theory'. The marginalist tradition came to seek 'pure theory', a formalist kind of theory that excluded from economics all the forces that in the Renaissance tradition were the driving forces of history. However, of all the marginalists, Menger was clearly the closest to the historical school, as we shall discuss later he both 'invented' marginalism and, at the same time, went far beyond it.

The criticism of the marginalists from the historical school was that the very source of wealth - Man's wit and will - had disappeared. This had led to an *Entgeistung der Volkswirtschaftslehre*, the role of Man's wit and will had been left out of the science. The German ethical historical school - with its US followers like Richard Ely and Simon Patten - followed the Renaissance tradition of seeing economics as a normative science, setting out to

⁶⁰ Menger, Carl, *Die Irrtümer des Historismus in der deutschen Nationalökonomie*, Wien, Alfred Hölder, 1884. See also Ritzel, Gerhard, *Schmoller versus Menger*, Frankfurt am Main, n.p., 1950.

⁶¹ Fusfeld, Daniel R, 'Methodenstreit', in *The New Palgrave Dictionary*, Macmillan, London 1987, p. 454.

transform society for the benefit of the common weal. Morality was, to them, rational, and part of the Ganzheit of the economics profession. In contrast, to British empiricist philosophy and classical economics, morality was irrational and based on sympathy (feeling) in the tradition of Hume and Smith. Accordingly, to the English school morality was totally separated from economics.

Canonical Methodenstreit 5. The US Institutional vs. The Neoclassical School (20th Century)

Institutional economics presents a continuation of the US and German 19th Century economics tradition. Institutionalism – a term originally coined only to describe the work of Norwegian-American economist Thorstein Veblen (1857-1929) – continued the radical trend of 'The American System' in opposing the abstract structures of English theory.

The institutionalists were very critical of the established economic doctrine, but most of them did not seek to throw it out completely. Since their theory was praxisnah – empirical and close to reality – the institutionalists attracted the attention of policy-makers. Academically and in terms of influence US institutionalism peaked in the troubled 1930's, and it may be argued that institutional policy-makers in the early 1930's anticipated the Keynesian policy prescription without his elaborate theoretical framework.

Although institutionalism declined rapidly after World War II – really during the years of McCarthyism – its influence on economic policy-making in Washington still lingers on. Two recent and informative books trace the demise of institutional economics in the United States: Yuval Yonay's The Struggle over the Soul of Economics 62, and a collection of papers: From Interwar Pluralism to Postwar Neoclassicism 63

Today Paul Krugman complains that 'It is not just that economists have lost control of the discourse; the kinds of ideas that are offered in a standard economics textbook do not enter into that discourse at all....'64 If we ask ourselves to whom the economists have lost control, Krugman lists an alliance of 'policy makers, business leaders and influential intellectuals' 65 These are the groups which today defend the common sense and pragmatism of institutional economics against the unmitigated rule of standard textbook economics. To the Ricardian Vice labelled by Schumpeter we may add the Krugmanian Vice: the vice of possessing more relevant economic theories – like e.g. new trade theory – but refusing to employ these principles in real world economic policy.

Thus, though neo-classicism won the day in academia and in our economic policy towards the Second and Third Words, the eclectic pragmatism of the institutional school lives on in the policy-making both in United States and in Western Europe. In academia, the proponents of this school are today mostly scattered in business schools, departments of governments, and of international affairs. As a result of the virtual eradication of Other Canon economists from departments of economics, the poor countries of the world are still treated to undiluted neoclassical economics as administered by the Washington Institutions.

⁶² Yonay, Yuval, *The Struggle over the Soul of Economics*, Princeton University Press, 1998.

⁶³ Morgan, Mary S. and Malcolm Rutherford (editors), From Interwar Pluralism to Postwar Neoclassicism, Annual Supplement to History of Political Economy, Volume 30, Durham, Duke University Press, 1998

⁶⁴ Krugman quoted in Reder, Melvin W., Economics. The Culture of a Controversial Science, Chicago, University of Chicago Press, 1999, p. 6.

⁶⁵ *Ibid.*, same page

4. The Austrians and The Other Canon.

Austrian economics in many ways bridges the two canons. If the theory of economics is seen from the angle outlined in the first part of this paper, the founder of Austrian economics, Carl Menger, his pupil Richard Schüller, and Joseph Alois Schumpeter all stand out as economists whose fundamental attitudes make them Other Canon economists. In the other end of the historical spectrum – in a process clearly also influenced by the political agenda created by the Cold War – the modern US/Austrian School has, for most practical purposes, strongly approached what we here refer to as the standard canon of economics.

The central idea of Menger's *Grundsätze* ⁶⁶ is to present a dynamic theory of economic development, which he presents in the fifth paragraph as 'The Causes of Progress in Human Welfare'. In this section we shall attempt to illustrate the similarities between Menger's approach and that of 19th Century Other Canon theorists in the United States, people like John Rae and E. Peshine Smith. Like Menger, these were economists writing in strong opposition to the English classical school.

When reading Menger, it soon becomes clear that this man went far beyond the marginalism he is noted for. As Erich Streissler says it: 'Menger is unique because he surpassed marginalism at the same time that he created it'. 'To him (Menger), his ideas beyond marginalism were the most precious.' A re-reading of Menger makes it clear that Streissler is right when he explains: 'Menger.. is to a large extent now forgotten precisely because in the reign of his successors in Vienna, the co-reign of Wieser (1903-24) and Böhm-Bawerk (1904-14) – the latter pre-dominating during his life-time – much of what was genuinely Menger's tradition got lost.' We shall argue in this paper that both neo-classical economics and Austrian economics have followed similar paths away from the visions of their founders, Marshall and Menger, parallel paths away from a focus on production and methodological diversity towards a theory where barter/exchange and lack of diversity dominates. In our terminology, most important 'Other Canon' elements were lost both in neoclassical and in Austrian economics during the 20th Century.

Menger lived long enough to see that his successors were sliding back into 'old errors' of economic science. Menger told Schumpeter that 'The time will come when people will realize that Böhm-Bawerk's theory is one of the gravest errors ever committed' Menger also charged Böhm-Bawerk directly in his obituary that he had relapsed into old doctrines. Schumpeter identifies these doctrines as the 'Ricardian roots' of Böhm's theories. Already with Menger's first successor in the genealogy of Austrian economics, in 1903, Austrian theory is taking a decisive bend towards the English-based mainstream tradition. One recent book discusses this under the fitting heading of 'The progressive Neglect of Menger's Originality'. Originality'.

⁶⁶ Menger, Carl, *Grundsätze der Volkswirtschaftslehre*, Vienna, Wilhelm Brauchmüller, 1871.

⁶⁷ Streissler, Erich, 'To what Extent was the Austrian School Marginalist', *History of Political Economy*, Vol. 4, No. 2, fall 1972, p. 430.

⁶⁸ Schumpeter, *History of Economic Analysis*, p. 847.

⁶⁹ *Ibid.*, p.846.

⁷⁰ Gloria-Palermo, Sandye, *The Evolution of Austrian Economics From Menger to Lachmann*, London, Routledge, p. 37-75.

Typically, today's standard economic theory is what Lionel Robbins termed a *Harmonielehre*⁷¹, a system where the resulting economic harmony is built into the very assumptions of the theoretical structure. There are two types of entrepreneurs in Austrian theory, who have opposite impacts in this respect:

- 1. The *Hayekian/Kirznerian entrepreneur* who produces equilibrium and economic harmony, and
- 2. The *Schumpeterian entrepreneur*, who produces disequilibrium and disharmony in the form of uneven economic development.

Of these two types of entrepreneurs, the Hayekian version is fundamentally a harmony-producing element of the standard economic canon, whereas the Schumpeterian entrepreneur is the destroyer of equilibrium, the element introducing the *novelty* and *new knowledge* that standard theory is essentially unable to handle. As we shall see, the young Schumpeter – as opposed to most other Austrians – also fundamentally disagreed with the notion of equilibrium.

Today the fundamental difference between modern US-Austrian and neoclassical economics seems to be that while neoclassical economics has a mechanical view of equilibrium, the Austrians focus on the process of reaching equilibrium, and the need for an entrepreneur to get there. 72 This may indeed have been a crucially important distinction in the debate between central planning and capitalism, but in a post-cold-war world, the differences in policy recommendations that can be derived from the two theories seem less important. Although the intellectual effort underpinning Hayek's laissez-faire towers above the mechanics of basic neoclassicism, the outcome on the policy level does not differ significantly. 73 Nicolai Foss pinpoints the problem: 'It is not only that modern Austrian economics asks different questions and gives different answers, it is perhaps more a fundamentally a matter of modern Austrian economics being unable to ask a number of interesting questions.'74 Foss then lists the questions about which Austrian economics is silent: 'the process of technological change, its organization and economic consequences, strategic interaction between duopolists, oligopolists, etc., the firm, its organization and activities.' We could also add: diversity of all kinds, including the issue of world poverty, and novelty. The list of questions that are outside the reach of the modern Austrian and of the neo-classical paradigms overlaps to a large degree, although most of these questions were discussed both by Menger and Marshall. This is one reason we here refer to the parallel loss of Other Canon issues in both sets of theories.

One fundamental element causing this convergence between Austrian and Neoclassical economics seems to lie in the loss of the factor *time* in both theories⁷⁵. Focusing on exchange rather than on production, and having accepted Walras' virtually instant equilibrium – the one-minute *tâtonnement* – modern Austrians and modern neoclassicals are both

⁷¹ Robbins, Lionel, *The Theory of Economic Policy in English Classical Economics*, London, Macmillan, 1952, pp. 22-29.

⁷² This is the main argument in a recent book, Machovec, Frank M., *Perfect Competition and the Transformation of Economics*, Routledge, 1995.

⁷³ For an evaluation of Hayek and economic policy, see Streit, Manfred E. 'Constitutional Ignorance, Spontaneous Order and Rule-Orientation: Heyekian Paradigms from a Policy Perspective', in: Frowen, Stephen F. (Editor), *Hayek. Economist and Social Philosopher*, Basingstoke, Macmillan, 1997, pp. 37-58.

⁷⁴ Foss, Nicolai, *The Austrian School and Modern Economics: Essays in Reassessment*, Copenhagen, Handelsøjskolens Forlag, 1994, p. 194.

⁷⁵ With some exceptions in the Austrian tradition.

Harmonielehren. Here they stand in sharp contrast to Menger and Schumpeter. Menger's tâtonnement takes a century⁷⁶, and in a system with constant innovations equilibrium will hardly ever be reached. Here we find a most important difference between Menger on the one hand and the later Austrians and the neo-classical on the other: To Menger the theoretical structure was a map of the forces at work, but the final outcome of these forces could neither be fully described, nor quantified. Nor would the final result necessarily be harmonious. Menger thus opens up for an economic theory that analyses the world as it is, and where development is potentially an uneven process.

Menger's pupil Richard Schüller writes his two main works while Menger's influence dominates at the University of Vienna, before the 'backsliding'⁷⁷ of Wieser and Böhm is much felt. Schüller dedicates both his works to his teacher Menger: *Die klassische Nationalökonomie und Ihre Gegner* (Berlin 1895) and *Schutzzoll und Freihandel. Die Voraussetzung und Grenzen Ihrer Berechtigung* (Vienna 1905). There are reasons to believe that Schüller was one of the students who were closest to Menger. This is indicated when – much later, in 1923 – Menger's son, Karl Menger, asks Schüller to write the foreword to the second edition of his father's *Grundsätze*⁷⁸. This edition is published two years after Menger's death at the age of 81, marking the 50's anniversary of the first edition. In his introduction, written just five months after Manger passed away, Karl Menger thanks 'his father's dear friend, Prof. Dr. Richard Schüller', for his 'many valuable suggestions' and for agreeing to write the foreword to the book.

In Schüller, a Mengerian unpolluted by the 'backsliding' Austrians of the next generation, we find a typical Other Canon economist. When discussing the perennial question of free trade vs. protectionism, Schüller starts with a discussion of *how costs develop* as a nation specialises in a certain type of activity⁷⁹. This discussion goes right to the core of the trade debate of The Other Canon from Serra's first description of increasing returns in 1613, limited to manufacturing, and all through the 19th Century debates in the US and Germany. Schüller's focus on production rather than on barter, and on increasing returns, makes him a typical Other Canon economist, whose system is one of uneven benefits from trade caused by the different development in costs structures according to a nations 'choice' of specialisation. Schüller's increasing returns are found not only in production, but also in finance, advertising and in 'travelling salesmen'⁸⁰. Increasing and diminishing returns are, to Schüller, factors which cause uneven economic growth, and one of many factors which need to be evaluated before deciding whether a nation should protect its manufacturing industry or not.

Also in Schumpeter's world, economic development is an uneven process. To Schumpeter 'the upper strata of society are like hotels which are..always full of people, but people who are forever changing'. In chapter 7 of the first edition of his *Theorie der wirtschaftlichen Entwicklung*, Schumpeter makes the following statement on economic equilibrium:

'It lies in the very foundation of our way of thinking that there is no such thing as a dynamic equilibrium. Economic development is in its very nature a disturbance of the

⁷⁶ See Streissler, op. cit., p. 440.

⁷⁷ This is the term Streissler uses in describing Menger's successors.

⁷⁸ Wien, Hölder-Pichler-Tempsky, 1923.

⁷⁹ Schüller, Richard, *Schutzzoll und Freihandel. Die Voraussetzung und Grenzen Ihrer Berechtigung*, Vienna, Tempsky, 1905, starting on page 9.

⁸⁰ *Ibid*, p. 15.

⁸¹ Schumpeter, Joseph A., *The Theory of Economic Development*, Cambridge, Mass., Harvard University Press, 1934, p. 156. This part has been added since the first German edition, Leipzig, Duncker & Humblot, 1912.

existing static equilibrium, without any tendency whatsoever for the system neither to move back to the original point of equilibrium, nor to any other point of equilibrium.'82

By the time the second edition of this work appears, in 1926, the whole chapter containing this paragraph – *Das Gesamtbild der Volkswirtschaft* – is gone. This 'case of the missing chapter' contains some interesting elements. In his new foreword to the second edition, Schumpeter informs the reader that chapter 7 has been omitted. Then, later on in the same foreword he comments on the changes that have been made to chapter 7 – a chapter which is not in the book at all. The same mistake – referring to a chapter which is not there – is repeated in the otherwise carefully edited and commented French translation of 1935. In his foreword Schumpeter comments as follows on chapter 7, which he must have decided not to publish at the last minute: 'as I reworked it, I agreed with (my) most severe critics, and excused others who did not understand the argument..'83

Following the other Austrians coming after Menger, here also Schumpeter moves towards a *rapprochement* with the standard canon. This *rapprochement* is also on an issue with almost religious significance: is there such a thing as equilibrium or not, or rather, what kind of questions can be usefully answered by the metaphor 'equilibrium'. In our view the postulate of an equilibrium severely reduces the scope of economic theory, leaving issues of great practical importance *outside* the paradigm. We can only speculate how much the different factors weighed in Schumpeter's decision to abandon his most fiercely anti-equilibrium stance; the weight of the criticisms, his admiration for Walras' system, or – and this is pure speculation – perhaps that fact that he wanted his work to appeal more to the Anglo-Saxon economic world, where he was to spend the last almost 20 years of his career. We must agree with Streissler that, in general, it is 'because he admired Walras so much that Schumpeter is such a bad guide to the real Austrian achievement, which has always been in complete contrast to Walras.'⁸⁴

With a perspective of more than 100 years, the ties and similarities between the economics of Carl Menger and traditional German economics are many. This is particularly true when the development of mainstream economics since the Methodenstreit is taken into consideration. In commenting on the *Methodenstreit*, Carl Brinkmann wrote in the *Encyclopaedia of the Social Sciences* that both Schmoller's and Menger's economics were parts of 'the great reaction that had set in against the one-sidedly deductive methods of orthodox utilitarianism...' 'In fact', Brinkmann says, 'there is the same craving for realism, after an age of self-satisfied "pure" reasoning, in the opening pages of Menger's *Principles* as there is in Schmoller's contemporaneous work on the small crafts in Germany..'85

The fact that Menger dedicated his first work to Wilhelm Roscher now seems a natural choice, whereas the *Methodenstreit* appears as a fight between two fractions that had more elements in common against the English neoclassical school than what divided them. Based on this, one should have thought that once the personal animosity between Schmoller and Menger disappeared, the two schools should find each other again. If Austrian economics had followed the path embarked upon by Menger, the *Methodenstreit* would most likely have come down differently in history, less methodologically acute and more of a personal quibble

⁸² Schumpeter, J., *Theorie der wirtschaftlichen Entwicklung*, Leipzig, Duncker & Humblot, 1912, p. 489. All translations, except where otherwise indicated, are our own.

⁸³ Theorie der wirtschaftlichen Entwicklung, Leipzig, Duncker & Humblot, 1926, p. xiii.

⁸⁴ Streissler, p. 430.

⁸⁵ Seligman, Edwin (editor), *Encyclopaedia if the Social Sciences*, New York, Macmillan, 1953 (1930). Vol. 1, p.167,

between insiders of the anti-classical movement. The opposite seems to have happened. The more the second and third generation Austrians *moved away from Menger*, the more relentless became their criticism of the historical school. We suggest that the reason why the *Methodenstreit* worsened considerably over time – the most vitriolic attack ever on historicism being Mises' in 1959 – is that both Austrian economics and neo-classical economics, in a parallel fashion, moved away from all the Other Canon aspects which Menger and Schmoller shared. This will be discussed more in detail in Section 5 of this paper.

The rest of this chapter is dedicated to the discussion of concrete theoretical points where Menger and Schmoller were both on the Other Canon side, against what developed into the English-Walrasian theoretical mainstream.

In the foreword to the second edition of Carl Menger's *Grundsätze*, his son Karl Menger emphasises his father's belief that 'the starting point of all inquiry into theoretical economics is the needs of human nature'⁸⁶. This is the classical starting point of German economics since the times of Leibniz and Christian Wolff: the profession is 'anthropocentric', i.e. centred on 'Man and his Needs'. The Germans always saw this as a sharp contrast to the English classical tradition, which is centred on barter, and where – in the end – Man is just a 'factor of production'. Menger's roots in German cameralism are discussed by Paul Silverman.⁸⁷

Menger makes the very *Other Canon* statement that 'the quantity of consumption goods at human disposal is limited by the extent of human knowledge'⁸⁸, evoking the 'never-ending frontier of knowledge' which is so typical of the **activistic-idealistic** and optimistic alternative canon. Menger here appears to be inspired by the spirit of US economist Erasmus Peshine Smith⁸⁹, whose work was translated to German only in 1878⁹⁰. To Peshine Smith there were two factors of production: 1. Nature, and 2. Man's wit and will. This is similar to Menger's view that the production in primitive societies depends solely on nature, 'it takes place independent of the wishes and needs of Mankind, and hence, so far as they are concerned, accidental'⁹¹. When human beings leave primitive society, and 'explore and research the causal mechanisms which produce consumption goods and take control over these processes, the production of consumption goods takes place as before, but their production is no longer coincidental to the wishes and needs of Man. Instead this is a process where Man is in charge and which is organised around Man's needs and purposes within the limits of nature's laws'⁹².

Like John Rae in his 1834 book⁹³, Carl Menger sees the division of labour as being a necessary consequence of human innovations and inventiveness⁹⁴, not – like Adam Smith –

Menger, Carl, *Grundsätze der Volkswirtschaftslehre*, zweite Auflage mit einem Geleitwort von Richard Schüller, aus dem Nachlass herausgegeben von Karl Menger, Wien, Hölder-Pichler-Tempsky, 1923, p. ix.
 'The Cameralist Roots of Menger's Achievement', in Caldwell, Bruce J. (Editor), *Carl Menger and his Legacy in Economics*, Annual Supplement to HOPE, Volume 22, Durham, Duke University Press, 1990.
 Streissler's translation, in Streissler, *op. cit.*, p. 431.

⁸⁹ The first of many US editions was: Smith, E. Peshine, *A Manual of Political Economy*, New York, Putnam, 1853

⁹⁰ Smith, E. Peshine, *Handbuch der politischen Ökonomie*, Berlin, Expedition des Merkur, 1878.

⁹¹ Grundsätze, p. 28.

⁹² P. 28-29

⁹³ Rae, John, Statement of some new principles on the subject of political economy, exposing the fallacies of the system of free trade, and of some other doctrines maintained in the 'Wealth of Nations', Boston, Hilliard, Gray & Co, 1834.

⁹⁴ See paragraph 5, 'Über die Ursachen der fortschreitenden Wohlfahrt der Menschen' in his *Grundsätze*, Menger, Carl, *Grundsätze der Volkswirtschaftslehre*, Vienna, Wilhelm Brauchmüller, 1871, pp. 26-29.

the other way around. Menger uses a whole section of his *Grundsätze* to refute Adam Smith on this point. This again is the 'anti-English/anti-barter' stance that is typical of The Other Canon.

Menger also represents the 'economics of time and uncertainty' which in many ways is the antithesis of neo-classical economics. However, as time has evolved, Austrian economics and neo-classical economics – particularly in their policy prescriptions – have converged on something that for all practical purposes is indistinguishable from that of the neo-classical synthesis. Hayek was, of course, sharply critical of any attempt to convert economics into a discipline similar to the natural sciences⁹⁵. Yet, in a post-cold-war world, Austrian economics came to appear as neo-classical economics in words rather than in mathematics. Menger's great map of the forces at work that would hardly ever come even close to their resting position, became a map which was considered accurate enough to reach the same policy conclusions as mainstream neoclassicism.

One important criticism of The Other Canon tradition against neo-classical economics has traditionally been its emphasis on monetary aspects and the limited role of the real economy of goods and services (What Schumpeter and others called the *Güterwelt*). In 1936, just after Menger's works had been reprinted in German at the London School of Economics, one author saw this as the *key issue* separating neo-classical and Austrian economics. The author, Franz Wien-Claudi of the University of Prague, published a book which was an early attempt to introduce Austrian economics to an English-speaking public. Wien-Claudi claims at that point that 'Hayek's main objection to the modern English School of Economics was that these authors have overestimated the significance of monetary phenomena and undervalued the importance of the events in the world of goods.'96 However, this point is not listed as one of Fritz Machlup's six ideas that separated Austrian economics from neo-classical economics before World War II. 97 Again, what was a typical 'Other Canon' feature of early Austrian economics seems to have been lost.

As the tradition was 'backsliding' into Ricardian and Walrasian economics, Austrian economics became increasingly 'schizophrenic', torn between a *verstehende* and a *mechanistic/ordnende* paradigm. Schumpeter emanated from the Renaissance tradition of the German historical school and spent his life on the hopeless task of formalising the creative essence of Renaissance economics - of entrepreneurship, novelty, and creative destruction - into the framework of dead equilibrium that is at the core of neoclassical economics. Schumpeter was, indeed, 'a living, breathing contradiction' as Mirowski puts it ⁹⁸. We would claim that this contradiction is an inevitable result of attempting to reconcile two paradigms that are irreducible to any common language.

John Bates Clark points to this 'schizophrenia' when he discusses Hayek's *Individualism and Economic Order*. The factors that create disequlibrium and, consequently, those that create the need for economic policy and government intervention are still there in the Hayek of 1949. However, these factors are being pushed more and more into the background as

⁹⁵ Hayek, Friedrich von, *The Counter-Revolution of Science. Studies in the Abuse of Reason*, Glencoe, Ill., Free Press, 1952.

⁹⁶ Wien-Claudi, Franz, *Austrian Theories of Capital, Interest, and the Trade-Cycle,* London, Stanley Nott/Allen Unwin, 1936, p. 7.

⁹⁷ See Israel Kirzner's entry 'Austrian School of Economics' in *The New Palgrave*, London, Macmillan, 1987, Volume I, p. 148.

⁹⁸ Mirowski, Philip, 'Doing what comes naturally: four metanarratives on what metaphors are for', in Mirowski (Ed.), *Natural Images in Economic Thought*, Cambridge, Cambridge University Press, 1994, p. 5.

Austrian economics comes of age, 'slides back', and increasingly focuses on addressing the threat from communist central planning:

'Hayek's position on economic policy is baffling: stressing the function of the free market and the dangers of expanding public controls, admitting the necessity of a considerable measure of control, but avoiding adequate definition of the line between the controls he opposes and those he would approve. The present volume contributes little to clarification of this vagueness. This is partly because the volume is a collection of short essays and addresses, in which Hayek repeatedly excuses himself from systematic and specific elaboration on grounds of space; but it seems to be fundamentally a matter of Hayek's method of attacking the analysis of these problems.

He starts with a principle, which he emphasizes as of dominant importance. He then admits that an opposing principle has validity and some proper scope; but never comes to grips with the question how far the opposing principle may be properly carried, and how it may be kept down to sound methods and limits. This is a fairly common theoretical method of analysis; and amounts to throwing the pragmatic emphasis, which generally accompanies the inevitable oversimplification of theory, in one direction or the other. If this direction is that in which the next step need to be taken, this pragmatic effect may be useful, as far as it goes and so long as only those steps are in consideration. If the emphasis is thrown in the opposite direction, as Hayek's is, its usefulness is limited to sounding a very general warning against possible excesses of wrong methods, but without yielding much useful guidance to those who are earnestly seeking it, aware of dangers but aware also of things that must be done.

In general, Hayek seems to underrate amazingly the seriousness of the problem of assured employment, and the extent of the public intervention it makes inevitable. **He pitches the argument on a mechanistic economic level**, and seems intolerant of attitudes that do not fit that scheme, rather than recognizing their existence and seeking a viable adjustment with them. On this basis, he seems doomed to the role of Cassandra. ii, 99

5. The 20th Century Closing of the Economic Mind.

In 1987 Richard Bloom's book *The Closing of the American Mind*¹⁰⁰ became an unlikely bestseller in the US. The aim of the book was to prevent American education – and the United States itself – from degenerating further into what the author perceived as an increasingly low and narrow mental horizon. Bloom describes American society's loss of the foundations in the humanities that were once synonymous with civilisation itself. He holds up the Europeans as being better off than the Americans – whom he at one point refers to as 'big babies' – in this respect. However, the 20th Century as 'the American Century' has insured the diffusion of US values and attitudes also to Europe.

⁹⁹ Clark quoted in Hickman, C. Addison, *J. M. Clark*, New York, Columbia University Press, 1975, pp. 69-70. My italics.

¹⁰⁰ New York, Simon & Schuster.

One important aspect of this development was thoroughly analysed already in the early 1960's, in Richard Hofstadter's *Anti-Intellectualism in American Life* ¹⁰¹. Although the roots of this anti-intellectualism can be traced back to the Pilgrim Fathers, Hofstadter focuses on the 1950's, on McCarthyism, as being the decisive period for the growth of anti-intellectualism. McCarthyism and the Cold War created a demand for a kind of economics that the mechanical versions of neo-classical economics and Austrian economics could both provide. The neo-classical utopia of a market creating harmony and factor price equalisation was an important counterweight to the communist utopia and its omnipotent state that promised to wither away.

In this context the 'intellectuals' became a nuisance. The 'intellectuals' had historical and political qualifications and modifications to the clear message of an absolute superiority of the unmollified market economy. American pragmatism under the pressures of the Cold War degenerated into expediency and anti-intellectualism. History – also US history – cluttered the message of the near 'evilness' of state interventions under all circumstances and in all contexts. Removing economics' previously solid foundation in the humanities pried open for the rule and dominance of the mechanical models: clear conclusions, but conclusions which in their pure and undiluted form are only valid in a world void of diversity, of friction, of scale affects, and of time and ignorance. The one handed economist was created, freeing the profession from the nuisance of qualifications – 'on the other hand' – created by the inclusion of historical context and perspective. This new economist was created at the cost of severely limiting the use of experience-based cognition, intuition and *Fingerspitzgefühl* – of qualities that are normally associated with the right half of the brain. The one armed economist is to some extent also the 'left brain only' economist.

The pure neo-classical techniques in which economic harmony is already solidly built into the basic assumptions – providing results like Samuelson's *factor-price equalisation* – was the kind of theory that was ideologically and politically in demand. We are not suggesting that this kind of theory was created for political purposes. The theories had been there essentially since Ricardo, but the *demand* for this kind of theorising rose considerable during the Cold War, sharpening its focus and message, but conveniently leaving aside the mitigating counterarguments of history. John Bates Clark's criticism of Hayek's failure to come to grips with 'the opposing principles' is a case in point. In this way the 'technicians' crowded out the 'intellectuals' of the economics profession. Still today, when Paul Krugman complains that 'economists have lost control of the discourse', his villains are an alliance of 'policy makers, business leaders and influential intellectuals' Some of Hofstadter's anti-intellectualism is still around when a technical economist like Krugman perceives the 'intellectuals' as being his enemies.

Both neo-classical economics and the Austrian economics of Hayek and Mises provided extremely useful defence mechanisms against what indeed was a communist threat. The question is what to do now, when this battle is won, and the problems of the world are essentially new, while the Cold War versions of neo-classical and Austrian economics are still the only games in town? We suggest that the need to re-establish the countervailing 'Other Canon' is urgent.

¹⁰¹ New York, Knopf, 1963.

¹⁰² Krugman quoted in Reder, Melvin W., *Economics. The Culture of a Controversial Science*, Chicago, University of Chicago Press, 1999, p. 6.

Both neo-classical and Austrian economics came to lose the kind of historical knowledge and experience that is required for the *Fingerspitzgefühl* necessary for difficult policy decisions. In this respect it is interesting to note that also typical neo-classical economists of the pre-WW II kind complained about the loss of historical knowledge. In pre WW II neoclassicism both theory and history were used as a matter course. Jacob Viner is one example of this. Viner was largely responsible for eliminating increasing returns from international trade theory on the account that it was *not compatible with equilibrium* 103, thus sacrificing the real world in order to keep the 'purity' of the model.

It was indeed a paradox that this happened in the middle of the 'Fordist' paradigm, where increasing returns were at the very core of the wealth-creating economy of the industrialised world. This severed the understanding of the relationship between manufacturing/industry and progress which had been at the core of European and North American economic policy for about 500 years. This is very different from the attitude of the founder of neo-classical economics, Alfred Marshall, who in the early editions of his celebrated *Principles of Economics*, clearly recognized that a nation could improve its position by subsidising economic activities subject to increasing returns, and tax those subject to diminishing returns (e.g. agriculture). ¹⁰⁴ Just like Austrian economics, neo-classical economics was backsliding away from its founder into Ricardian and Walrasian models already before World War II.

Yet the very same Jacob Viner wrote a most interesting book on the problem of economic man as a passive being in the hands of 'Providence' – of the invisible hand being a metaphor fro Providence, thus bringing laissez-faire and 'passivity as strategy' close to a primitive belief in faith and providence. ¹⁰⁵ The same Viner who threw out increasing returns, also years later complains that 'economists have succeeded in being as ahistorical as an educated man can perhaps possibly be.' ¹⁰⁶ This shows the dualism so typical of economists both of the Austrian and neo-classical school before World War II: the real world was kept as a frame of reference that was to be continuously confronted with the theoretical map of 'the forces at work'.

What has been lost is primarily this important skill of going back and forth between the theoretical models and the real world, between theory and experience. The loss of this skill, and a general lack of historical knowledge, contributes to what Veblen calls the *contamination of instincts:* Today's standard education economics too often fails to communicate with what to practical people is 'common sense'. In this vein, a distinguished committee of the *American Economic Association* pointed in 1991 to the danger that 'graduate programs (in economics) may be turning out a generation of too many *idiots savants*, skilled in technique but innocent in real economic issues.' 107

An Austrian parallel to Jacob Viner – very orthodox but still insisting on the role of history and of the real world – is Fritz Machlup. One of the founders, with Hayek, of the ideologically important Mont Pelerin Society, Machlup received his Ph. D. in Vienna in 1923 and came to the US in 1933. In spite of his orthodoxy, Machlup wrote extensively on

¹⁰³ In his Studies in the Theory of International Trade, New York, Harper, 1937, pp. 475-482.

¹⁰⁴ Marshall, Alfred, *Principles of Economics*, London, Macmillan, 1890 (1st edition). p. 452.

¹⁰⁵ Viner, Jacob, *The Role of Providence in the Social Order*, Philadelphia, American Philosophical Society, 1972.

¹⁰⁶ Viner, Jacob, Essays in the Intellectual History of Economics, Princeton, Princeton University Press, 1991.

¹⁰⁷ 'Report of the Commission on Graduate Education in Economics', in *Journal of Economic Literature*, September 1991, pages 1044-1045.

'Schumpeterian' subjects like 'The Supply of Inventors and Invention' and 'The Production and Distribution of Knowledge in the United States' Machlup was also the supervisor for Edith Penrose's research for her Ph.D. thesis, a research that eventually led to the *Theory of the Growth of the Firm* 10. This book is important as a key foundation for the microeconomics of The Other Canon. A recent publication on work of Edith Penrose comments that it is 'a fascinating paradox how Machlup, a doyen of neo-classical economics, should have been partially responsible for a work so far removed from the mainstream' We would suggest that this was much less of a paradox 40-50 years ago that it is now. This is yet another example of the loss of diversity of scope and tools in the profession.

The economics of Edith Penrose was sharply at odds with textbook theory, but she would not engage in a *Methodenstreit:* 'Would anyone ...try to reconcile a football game with a cricket match just because they are both ball games?' Whereas the early Austrians and early neoclassicals were able to play 'both football and cricket', this ability was gradually lost, together with the multitudes of tools and approaches previously used.

In spite of what we today may perceive as a position against the use of history in economics in his *Irrtümer des Historismus*, Carl Menger really goes out of his way to emphasise the important role of history in economics¹¹⁴: 'A highly developed theory of economic phenomena is inconceivable without the study of economic history'¹¹⁵, 'No reasonable person conceals the importance of historical studies for research in the field of political economy', ¹¹⁶ and history is 'indispensable' for theoretical economics. ¹¹⁷ Schmoller and Menger agree that both induction and deduction must be on board, and the *Methodenstreit* is seemingly about who is to be in the driver's seat. Which of the two is going to be the 'main science' and which should be the 'auxiliary science'. Menger's main objective seems to relegate history to the position as a *Hilfswissenschaft* (auxiliary science), a term to which he returns again and again. The contestants of the *Methodenstreit* discuss whether history – which they both see as indispensable to economics – should be an *Überbau* or *superstructure* (Schmoller) or an *Unterbau* or *foundation* (Menger). From this methodological angle, the *Methodenstreit* seems to fit the definition of a quibble: an unsubstantial argument based on playing with words.

As has been said by many commentators, this particular *Methodenstreit* seems like a waste of scholarly energy. Seen from today's perspective, Schmoller and Menger were very close in the role they saw for economics, and both were far from today's mainstream. In his first book - of which there is still no English translation - Schumpeter denounced such doctrinal as the Methodenstreit as a waste of time¹¹⁸. Each method had its concrete areas of application, and it

¹⁰⁸ In Weltwirtschaftliches Archiv, Vol. 85, No. 2, 1960, pp. 210-254.

¹⁰⁹ Princeton, Princeton University Press, 1962.

¹¹⁰ Oxford, Blackwell, 1959.

Penrose, Perran & Christos Pitelis, 'Edith Elura Tilton Penrose: Life, Contribution and Influence', in *Contributions to Political Economy*, Vol. 18, 1999, p. 5.

¹¹² For a discussion of the loss of tools, see again Morgan, Mary S. and Malcolm Rutherford (editors), *From Interwar Pluralism to Postwar Neoclassicism,* Annual Supplement to History of Political Economy, Volume 30, Durham, Duke University Press, 1998.

¹¹³ Ibid., same page.

¹¹⁴ Menger, Carl, *Die Irrtümer des Historismus in der deutschen Nationalökomie*, Wien, Alfred Hölder, 1884, e.g. pp. 22, 26, 31, 35, etc.

¹¹⁵ *Ibid*, p. 22.

¹¹⁶ P. 26.

¹¹⁷ P. 36.

¹¹⁸ Schumpeter, Joseph Alois, *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie*, Munchen & Leipzig, Duncker und Humblot, 1908.

is useless to struggle for universal validity. To the young Schumpeter, one should enter the theoretical edifice at a level of abstraction where one was likely to find answers to the questions posed. In this spirit we might say that the neo-classical structure is not 'wrong' under its assumptions. It becomes wrong only when – unmitigated by historical observations – it is applied to the real world, where entirely different assumptions are appropriate.

The cases when economists were able to keep both their theoretical models *and* refer back to the many dimensions and complexities of the real world became increasingly rare. Economics came to suffer from what Philip Mirowski calls 'physics-envy'.¹¹⁹ Also the Austrians 'suffered to some degree from the effects of an intellectual world that expected all science to emulate the rigour of physics', as Allan Oakley puts it in his book on the Austrian.¹²⁰ John B. Clark's 1949 accusation, quoted above, that Hayek 'pitches the argument on a mechanistic economic level, and seems intolerant of attitudes that do not fit that scheme' is indicative of the same development.

We shall let the development of Ludwig von Mises' treatment of *historicism* – comparing his 1933 treatment and his 1957 treatment of the same subject – serve as the last illustration of the development of Austrian economics over time. Mises' treatment of the *Methodenstreit* went from being a purely academic disagreement in 1933, to being an important ideological and political issue in Austrian economics after World War II.

In Mises' 1933 *Grundprobleme der Nationalökonomie*¹²¹, the *Methodenstreit* is still very much alive, already in the introduction of the book. Mises here presents and caricaturises historicism in its 'pure' form. When Sombart is quoted as admitting that 'general economic concepts, which are valid for all economies' do exist, Mises does not take this as an invitation towards a compromise. ¹²² All through the book, Mises introduces a *Methodenstreit* type of debate that seems to know few concessions. For example on pages 56 to 59 Mises argues against Gunnar Myrdal that 'Myrdal knows neither the contemporary situation nor the history of our science, and is therefore fighting against windmills'. On page 129-134 he polemises again against Werner Sombart. However, the whole debate is apolitical and – though caustic – purely confined to academic economics.

When Mises again picks up historicism in his *Theory and History*, first published in 1957, the basic criticism is the same, but the treatment very different. (It may be noted that in the 1933 book the author was Ludwig Mises, in the US he is Ludwig *von* Mises). Mises comes to the treatment of historicism from a section called 'planning history', which ends as follows: 'It is possible that in a few years all nations will have adopted the system of all-round planning and totalitarian regimentation. The number of opponents is very small, and their direct political influence almost nil. But even a victory of planning will not mean the end of history. Atrocious wars among the candidates for the supreme office will break out. Totalitarianism may wipe out civilization, even the whole of the human race. Then, of course, history will have to come to its end too.'123

¹¹⁹ More Heat than Light. Economics as Social Physics, Physics as Nature's Economics, Cambridge University Press, 1989, see also De Marchi, Neil (editor), Non-natural Social Science: Reflecting on the Enterprise of 'More Heat than Light', Durham, Duke University Press, 1993.

¹²⁰ Oakley, Allen, *The Foundations of Austrian Economics from Menger to Mises*, Cheltenham, Elgar, 1997, p. 2. ¹²¹ Jena, Fischer, 1933.

¹²² Page 6.

¹²³ Mises, Ludwig von, *Theory and History. An Interpretation of Social and Economic Evolution*, Auburn, Alabama, The Ludwig von Mises Institute, 1985, 197.

We shall quote extensively from Chapter 10, *Historicism*, which in a sense represents the last act to be performed in the *Methodenstreit* (bolds are mine):

1. The Meaning of Historicism.

'Historicism developed from the end of the eighteenth Century on as a reaction against the social philosophy of rationalism. To the reforms and policies advocated by various authors of the Enlightenment it opposed a programme of preservation of existing institutions and, sometimes, even a return to extinct institutions. Against the postulates of reason it appealed to the authority of tradition and the wisdom of ages gone by. The main target of its critique was the ideas that had inspired the American and the French Revolutions and kindred movements in other countries. Its champions proudly called themselves antirevolutionary and emphasized their rigid conservatism. But in later years the political orientation of historicism changed. It began to regard capitalism and free trade – both domestic and international – as the foremost evil, and joined hands with the 'radical' and 'leftist' foes of the market economy, aggressive nationalism on the one hand and revolutionary socialism on the other. As far as historicism still has actual political importance, it is ancillary to socialism and nationalism. Its conservatism has almost withered away...'

If the historicists had been consistent, they would have substituted economic history for the – in their opinion counterfeit – science of economics. (...) But this would not have served their political plans. What they wanted was to propagandise for their interventionist and socialist programs. The wholesale rejection of economics was only one item in their strategy. It relieved them from the embarrassment created by their inability to explode the economists' devastating critique of socialism and interventionism. But it did not in itself demonstrate the soundness of prosocialist or interventionist policy. In order to justify their 'unorthodox' leanings, the historicists developed a rather self-contradictory discipline to which various names were given such as realistic or institutional or ethical economics, or the economic aspects of political science (wirtschaftliche Staatswissenschaften).'

The line of reasoning against historicism – most of it is not quoted here – is very much like Mises' 1933 treatment of the same subject. But in the 1957 book, the academic antagonism has yielded to what, in the eyes of this writer, comes very close to McCarthyist political propaganda. Historicism is vilified as being the root of most evils of history: not only of socialism. All reactionaries, enemies of 'reason', and also the enemies of the American Revolution, are by definition 'historicists'. Note that the institutional school is, according to Mises, just another name for these 'reactionaries'. Again this contrasts sharply with Menger, who – as Streissler points out – on many points 'was very close to the Institutionalists'. 124

This piece of Cold War Americana is not complete without a brief account of the alleged 'ideological conflict' between Yale University Press – which originally published the book – and Mises. The disagreement between Mises and his publishers seems to originate in quality problems in the production of Mises' *Human Action*. The press apologises, and admits that it is not up to standards¹²⁵. This printing problem is by the Mises interpreted an 'ideological conflict between Ludwig von Mises and Yale University Press'. 'Who was it that wanted to

¹²⁴ Streissler, op.cit., p. 433.

¹²⁵ This account is found in Mises, Margit von, *Ludwig von Mises*. *Der Mensch und sein Werk*, Munich, Philosophia Verlag, 1981, pp. 155-163.

harm my husband by producing a bad print, and in that way obstruct the reader?' 'Why did Lu's (Ludwig von Mises') lawyers, who had such a clear case in their hand, decide not to go to court, although Ludwig von Mises so obviously had the right on his side?' Not only does Mises insist that *historicism* is the incarnation of all evil across history from the 'conservative' opponents of the American Revolution to 'revolutionary socialism', but Yale University Press is seen as waging an ideological war against Mises. We have full understanding of an author who sees his press not doing a proper job. However, these kinds of interpretations are only understandable in the context of McCarthyism. Austrian economics had indeed come a long way from Carl Menger.

In many ways the 20th Century has witnessed a slow closing of the minds of the economics profession. More than before, economists became the 'eggheads' they were traditionally accused of being in the US: 'People who do not understand everything they know.' Probably the most dramatic event in this development is that the economics profession lost its base and points of reference in the humanities. The early Austrian and neoclassical economist used the theoretical structure as an inaccurate map which was constantly held up and evaluated against the real world history, and its philosophy and values were firmly embedded in the humanities. This approach created and allowed methodological diversity and pluralism, a diversity that was lost when the ties between economics and the humanities were slowly severed. We have already mentioned two recent volumes which trace this development in economics, and their titles are descriptive: *The Struggle over the Soul of Economics* ¹²⁶, and *From Interwar Pluralism to Postwar Neoclassicism.* ¹²⁷

The founders of both the neo-classical school, Alfred Marshall, and of the Austrian School, Carl Menger, took great care in emphasising the importance of history in economics. In his preface to the *Principles of Economics*, Marshall spells out the chief influences common to all modern schools of economic thought as biology and history, whereas mathematics is seen as influencing the *form* of the theory. It is the business of economics ... to collect facts, to arrange and interpret them, and to draw inferences from them Marshall says, laying the foundation for economics as an *Erfahrungswissenschaft* (a science of practice), rather than the Ricardian science of *a priori* assumptions with categories established once and for all. Later Marshall approvingly quotes Schmoller as saying that Induction and deduction are both needed for scientific thought as the right foot and left foot are both needed for walking 130.

Both neo-classical economics in general and modern Austrian economics in the United States seem to have taken on many of the characteristics that Bloom ('The Closing of the American Mind') and Hofstadter ('Anti-Intellectualism in American Life') associate with intellectual life in the United States, and spread this attitude to the rest of the world. In terms of economic policy and of belief in 'spontaneous order' Austrian and neo-classical economics seem, for all practical purposes, to be of one mind. The main difference between the two schools seems today to lie in the absence or presence of an equilibrium-making entrepreneur. The foundations of the theory in the humanities are difficult to locate in today's structures, and this economic theory – void of context and of institutions beyond that of the market – indirectly also becomes curiously ethnocentric. If institutions are assumed away in a theory

130 Ibid, also page 29.

¹²⁶ Yonay, Yuval, *The Struggle over the Soul of Economics*, Princeton University Press, 1998.

¹²⁷ Morgan, Mary S. and Malcolm Rutherford (editors), *From Interwar Pluralism to Postwar Neoclassicism*, Annual Supplement to History of Political Economy, Volume 30, Durham, Duke University Press, 1998 ¹²⁸ Marshall, Alfred, *Principles of Economics*, London, Macmillan, 1890, pp. ix-x.

¹²⁹ This phrase marks the start of Chapter III, 'Economic Generalizations or Laws', Principles of Economics, 9th (variorum) edition, London, Macmillan, 1961, p. 29.

void of time and history, this implicitly assumes that the institutions ruling in one's own country can be taken for granted and can be expected to arise spontaneously and instantly anywhere and in any context. The co-evolution of economic activities and their accompanying institutions is lost.

The collective memory of the tremendous effort it took to build the institutions of civilisation was lost from the neo-classical and also to a large extent from the neo-Austrian schools. As a German economist put it in 1840: 'As the grown man has long since forgotten the pains it cost him to learn to speak, so have the peoples, in the days of their mature growth of the State, forgotten what was required in order to free them from their primitive brutal savagery.' ¹³¹ The policy implications of this proved devastating to the economic welfare in the former communist world and in Africa. A re-introduction of brutal savagery has, in some cases, been the result.

US pragmatism in its best sense is related to the *praxisnähe* in German social sciences: What is wanted is not theory for its own sake, but a practical theory where action is intimately tied to analysis. The same US pragmatism, however, may deteriorate into 'expediency', into going ahead without proper analysis of alternatives and of consequences. After World War II, Western Europe was given a period of 15 to 20 years to adjust to free convertibility of currency and free trade. Comparing the economic policy applied in Western Europe after World War II with the 'shock therapy' applied to the former communist world after 1990 provides an good example of how the praxis of economics degenerated from the first definition of pragmatism (operating with a 'practical' theory reflecting the real situation) to the second (going ahead without a proper analysis).

6. Understanding Human Cognition: Carl Menger and the King who wanted to make the Perfect Map.

In the previous section, we looked at Menger's *Irrtümer des Historismus* compared to mainstream economics during the latter half of the 20th Century. From this vantage point the *Methodenstreit* between Menger and Schmoller seems like two 'Other Canon' economists involved in a relatively minor quarrel. They both agreed on the fundamental importance of history as an indispensable building block for any economic theory. This point was later strongly emphasised also by Schumpeter. From this point of view, Marshall, Menger, Schmoller and Schumpeter all represent a theoretical tradition that is virtually dead in the year 2000.

Only in one aspect does there seem to be a fundamental disagreement between Menger and Schmoller. This disagreement is about the use of past experience in human cognition. In his disagreement with Schmoller, Menger here takes a position that finds its parallel in a short story by Argentine author Jorge Luis Borges about the king who wanted to make the perfect map. The perfect map was seen as one holding all conceivable details, and – obviously – the larger the map, the better it was. Borges tells the story through a fictitious 17th century book, *Viajes de Varones Prudentes*:

¹³¹ Hoffmann, J.G., introduction to *Lehre von den Steuern*, quoted in Cohn, Gustav, *The Science of Finance*, translated by Thorstein Veblen, Economic Studies of the University of Chicago, No. 1, Chicago, University of Chicago Press, 1895, p. 60

'In that Empire, the Art of Cartography achieved such perfection that the Map of one single Province occupied the whole of a City, and the Map of the Empire, the whole of a Province. In time those disproportionate maps failed to satisfy, and the Schools of Cartography sketched a Map of the Empire which was of the size of the Empire and coincided at every point with it.'132

Norwegian author Tor Åge Bringsværd has a similar story about a man who wants to write world history, and starts with September 11¹³³ of one particular year. He found that so many things had happened in the world on that particular date, that his history of the world never advanced as far as September 12 of the same year.

Menger criticises the *Kleinmalerei* or *Mikrographie* of the German Historical School, the 'small paintings' they produce of apparently insignificant historical events. Schmoller' publications on the cloth production in Strasbourg are attacked by Menger as such a useless *micrography*. Menger quotes his colleague Emil Sax, and considers him optimistic when he claims that the historical research needed to create a sufficient basis for economics will take 'generations'. Says Menger:

'Should economic history be completed, in the spirit of Schmoller's micrography, before it could go on with theoretical economics, only aeons would suffice. Just think of the meat prices in Elberfeldt! In Pforzheim! In Mühlheim! In Hildesheim! In Germersheim! In Zwickau! And so on. As astronomers had to introduce the concept of light years in their science to measure enormous distances, we economists would at least have to start using the living spans of solar systems as time units, in order only to achieve an approximate idea of the amount of time needed to achieve a complete historical and statistical foundation for scientific research in Schmoller's meaning of the word.' 134

Hopefully, the parallel between Menger's idea of historicism, Mr. Borges' mapmaking and Mr. Bringsværd's writing of history will now be clear. Menger creates the picture of a map in scale 1 to 1, a complete historical record of every price in every village in Germany (and presumable the rest of the world), which will have to be faithfully drawn in order to create the necessary theoretical foundations for a historical economics. The quote from Menger also gives a flair of the aggressive and personal, even insulting, style on both sides of the *Methodenstreit*. In continuation of the meat price argument, Menger accuses Schmoller of being 'naïve' and a 'dilettante', and – closing the book – claims that 'in the future only children and idiots will pay any attention to (Schmoller's) odd theoretical gestures' This tone was not that unusual among academic economists in Germany at the time. Eugen Dühring's debates with his opponents were possibly even more vitriolic.

The debate over the use of history in economics is fundamentally a debate on human cognition. Schmoller and the German Historical School come from a long tradition where history was the raw material for human decision-making. Economics was, like conducting a business, an *Erfahrungswissenschaft* – a science of practice and experience. We shall see below that Schmoller directly inspired the man who created Harvard Business School, a place

¹³² Borges, Jorge Luis & Adolfo Bioy Casares, Extraordinary Tales, New York, Herder & Herder, 1970, p. 123.

¹³³ In: Bringsværd, Tor Åge, *Den som har begge beina på jorden står stille*, Oslo, Gyldendal, 1974.

¹³⁴ Menger, *Historismus*, p. 38-39.

¹³⁵ P. 87.

where management is still today successfully taught as an *Erfahrungswissenschaft* with the case method of the German Historical School.

This view of the role of history contrasts with the philosophical foundations of Adam Smith's economics, which lie in the philosophy of John Locke. In this philosophical tradition the human mind is a passive 'blank slate'. The philosophers behind The Other Canon – Gottfried Wilhelm von Leibniz and Christian Wolff – were in extreme opposition to John Lock's view of the mind as a 'blank slate' passively receiving impressions. To The Other Canon philosophers, the mind is fundamentally active, not passive. The mind perceives the world by incessant observations, continuously formulating and reformulating hypotheses based on pre-existing patterns, or schemata, of thought. Feedback mechanisms in this system – important parts of which is clearly subconscious – include intuition, vision and 'gut feelings'. Memorising series of numbers in large statistical databases, like Menger suggests, is not a part of this system.

In this tradition the mind produces 'clues'. In economics Keynes' biographers call it his 'intuition', while Schumpeter speaks about 'vision'. These theories of the mind are based on a mode of inference called *abduction*, or *phronesis*, Aristotle's' third form of knowledge. The tradition was continued by Italian philosopher and historian Giambattista Vico (1668-1744), and continued in the 18th Century in German philosophy, and in the 19th Century both in German and US philosophy. To US philosopher C.J. Pierce '(Induction) can never originate any idea whatever. No more can deduction. All the ideas of science come to it by way of Abduction. Abduction consists of studying facts and devising a theory to explain them. Its only justification is that if we are ever to understand things at all, it must be in this way'. Pierce here continues the role played by the formation of hypothesis in the neo-platonic tradition of Leibniz and Christian Wolff. ¹³⁶

English economist Edward Misselden expressed the view that abduction anticipates 'science' in 1623: 'Wee felt it before by sense, but now wee know it by science.' W. Brian Arthur of the Santa Fe Institute is today working on economics and human cognition. Based on work in psychology, a scientific foundation for what was the 'sense' of the Historical School is again being established. In an article in Harvard Business Review, but without reference to economics, Arthur describes how the study of history builds qualitative *verstehen*:

'What counts to some degree (in hi-tech business) – but only to some degree – is technical expertise, deep pockets, will, and courage. Above all, the rewards go to the players who are first to make sense of the new games looming out of the technological fog, to see their shape, to cognize them. Bill Gates is not so much a wizard of technology as a wizard of precognition, of discerning the shape of the next game.' 137

This is a description of the abductive, qualitative understanding (*verstehen*) that has been lost in economics. US pragmatism at its best is also 'abductive', and nowhere are the principles of the German Historical School being put so consciously to work as at Harvard Business School (HBS). Reading and discussing several cases from real business every day for two years, forcing people to make decisions from real-life cases, produces an 'artificial experience' which develops and fine-tunes the underlying and subconscious system of *production* and

¹³⁶ For a discussion of this, with references to Pierce, Leibniz and Wolff, see Reinert, Erik and Arno Daastøl, 'Exploring the Genesis of Economic Innovations: The religious gestalt-switch and the **duty to invent** as preconditions for economic growth', *European Journal of Law and Economics*, Vol 4, No. 2/3, 1997.

¹³⁷ W. Brian Arthur, 'Increasing Returns and the New World of Business', *Harvard Business Review*, July-August 1996, pp. 100-109.

constant and continuous modification of hypotheses. The cases are full of figures, but thinking – like Menger did – that the training for decision making in real life consists of memorizing these numbers is completely missing the point.

There is a consistent discrepancy between how Harvard Business School is rated by the deans of other business schools ('not that brilliant') vs. what HBS graduates are paid (considerable above the graduates of all other business schools). The market is willing to pay a large premium for the systematic and focused artificial honing of abductive reasoning which is unique to this school. HBS students know that they are trained in 'management by gut feeling', there are T-shirts sporting a mock Latin translation of this slogan and the school's coat-of-arms.

The link from Schmoller's historicism to Harvard Business School is direct. The man who created the case method was a student of Schmoller, Edwin F. Gay (1867-1946). Gay is representative of a whole generation of US students who came back imbibed with the attitudes and values of the German Historical School, and whose careers formed the economic policy of the United States up until World War II. We shall therefore look at Gay's career in some detail, as a typical representative of those great American scholars who brought home both their scientific methods and their social consciousness from Germany.

After an MA in Michigan, Gay stayed more than 12 years studying in Europe, mainly in Berlin, Zürich and Leipzig. He studied under Schmoller and Adolf Wagner, receiving his Ph. D. in Economic History in Berlin in 1902. Studying under Wagner, Gay found himself losing the 'kind of fear of the encroaching action of the state' that he had carried with him from America. 'It was Schmoller, however, who really fired Gay's attentive interest and enthusiasm', says his biographer¹³⁸.

Gay joined the Harvard Faculty in 1902. He was a brilliant organiser and motivator of people, so when Harvard decided to set up a Business School in 1908, Gay was called upon to be its first Dean, a job he kept for 10 years. All through his life he was frequently handpicked to launch new ventures, and was constantly called upon for his advice. In spite of his vast knowledge of economic history, he therefore published very little. Although he was very proud of the achievements of the Business School, Gay later regretted giving up so much research and writing time for launching the HBS. However, among his students of economic history at Harvard were Julius Klein and Earl Hamilton, who were to become the foremost economic historians of Spain in the United States.

Gay held the job as Dean of HBS until 1918, but spent the war years in Washington organising US foreign trade, minimising international trade (maximising autarky!) in order to free as much tonnage as possible of ocean freighters for the war effort. It was here Gay met Herbert Hoover. From 1919 to 1923 Gay worked as the editor of the New York *Evening Post*, and started what became the *Saturday Reveiw of Literature*. From 1923 to 1933 Gay shared the direction of the National Bureau of Economic Research with Wesley Claire Mitchell. He was the first secretary-treasurer of the Council of Foreign Relations, and was the 'moving spirit' in launching *Foreign Affairs* in 1922.

Gay was also elected President of The American Economic Association. Today it is of course absolutely unthinkable that a former Dean of Harvard Business School should be elected

¹³⁸ Heaton, Herbert, *A Scholar in Action – Edwin F. Gay*, Cambridge, Mass., Harvard University Press, 1952. p. 38.

President of the American Economic Association. This again goes to show how extremely different and more *praxisnah* mainstream US economics was before World War II, and how much more intimately the leading economists were integrated into the practical life of the nation.

Gay was very active in promoting better labour legislation and a new Factory Act. His colleagues emphasised that he always saw the 'altogetherness of everything' – the Faustian *Ganzheit* – and one comments that 'He is an exceedingly important part of the bridge between the social sciences and the humanities'. As a keen observer of economic history, Gay also saw successive waves of industrialisation: a sequence of techno-economic paradigms. Under the heading 'Swings of the Pendulum', a history of Harvard Business School states the following about its first Dean:

'...he developed a dynamic vision of economic history: it was, he concluded, a record of swings of the pendulum between periods when social controls dominated, and periods dominated by the actions of aggressive individuals. The former periods were static, characterized by security and stability. The latter periods, ushered in by the introduction of new tools, weapons, or other forces, were controlled by the powerful individuals who introduced these forces. ¹³⁹

These dynamic periods, Gay felt, were crucial to economic development. The Industrial Revolution, for all its unwelcome side effects, had made possible new levels of productivity and prosperity. The role of the economic historian, as Gay perceived, was to study and comprehend these cycles, and to suggest ways of restraining their excesses'. In the famous and voluminous Hoover report – so optimistic before the 1929 crash – Gay's is the only paper that senses that something is not right in the economy.

At the root of the present problem of economics is the loss of the educational tradition that produced people like Gay. The practice lives on, like in the case method that Gay introduced at Harvard Business School – which is a tool right out of Schmoller's Historical School of Economics – and in the 'businessmen, politicians and intellectuals' who, as Krugman complains, do not listen to textbook economic theory. US history holds a treasure of 'Other Canon' personalities like Gay, they just become fewer and fewer in economics as the mechanical world view increasingly takes over economics after WW II, contaminating the healthy instincts of abductive reasoning in the profession. All founders of the American Economic Association had studied in Germany, and most of US economics essentially belonged to 'the Other Canon' until just after WW II.

7. Relevance Lost: The Parallel Paths of Austrian and Neo-Classical Economics.

Neo-classical economics travelled a long way from Alfred Marshall's *Wanderjahre* in English industry to Paul Samuelson's *factor price equalisation* – from a *production-based* understanding of what creates differences in income, to a barter-based *Harmonielehre*. Young Marshall took pride in being able to estimate, with remarkable accuracy, any wage in the industries he visited by observing the skill requires for the job. ¹⁴⁰ The path travelled by

¹³⁹ Cruikshank, Jeffrey L., *A Delicate Experiment. The Harvard Business School 1908-1945*, Boston, Harvard Business School Press, 1987, p. 29.

¹⁴⁰ Pigou, A.C. (Editor), Memorials of Alfred Marshall, London, Macmillan, 1925, p. 358-359.

Austrian economics from Menger's insistence that 'the quantities of consumption goods at human disposal are limited only by the extent of human knowledge' to the modern Austrian economics of the US South is equally long and changing.

The trajectories of the two schools of economics are in many ways parallel. Both founders – Marshall and Menger – built theoretical structures as *maps of the forces at work*. Particularly Menger insisted that his map was extremely inaccurate; he consistently refused attempts to derive 'high degrees of exactness' from a structure that was, by its very nature, sketchy. Over time, their respective *maps of forces* became rigid structures where time, diversity, friction and complexity disappeared in an increasingly mechanical exercise. Both schools – Austrian and neoclassical – came to focus on barter/market rather than on production. In short, they lost the 'Other Canon' features of economics that make the structure *praxisnah* (close to the real world) and able to explain important features like uneven economic growth.

The rising threat from communism and the planned economy influenced both schools. The political element, we could even call it the propaganda elements, in the writings of Hayek and Miser is unmistakable. In many ways Samuelson's *factor price equalisation* is more insidious as a tool of propaganda, because the political elements are better hidden under a mathematical garb than in prose. Communism promised that every man should receive according to his needs; Samuelson 'proved' that under a market economy all wage earners would be equally rich! Samuelson here 're-invents' and widens the scope of the *Gesetz des Preisausgleiches* (law of the equalisation of prices) from 'second generation' Austrian economist Friedrich von Wieser, who – in sharp contrast to Menger – believed in 'perfect markets.' In both cases it seems to us that the conclusion – factor price equalisation – automatically results from the assumptions. Samuelson's journal articles on this matter were published during the height of the Berlin blockade.

Both neoclassical and Austrian economics lost their embeddedness in real economic life and in society in general: Both drifted away from production into barter and, each in their own way, became fascinated with Walrasian instant equilibrium. In the case of neoclassical economics, the system worked without an entrepreneur. In case of the Austrians the system needs a Hayekian equilibrium-making entrepreneur. But both theories became static and mechanical, as John Bates Clark pointed out about Hayek. Both types of theory came to produce automatic economic harmony, and both became useful propaganda tools in the Cold War. The Cowles Commission, for neo-classical economics, and the Mont Pelerin Society, for Austrian economics, each in their own way contributed to the development of harmonious economic utopias that were effectively pitched against the communist utopia. In this battle of utopias the *praxisnah* Other Canon became almost extinct.

Both the neo-classical and Austrian theories lost their ties to a different, and lower, level of abstraction. The *praxisnah* ('near to reality') Other Canon traditionally scorns what German economists Karl Bücher called 'die verschimmelte Schulweisheiten' – the mouldy school truths - of theoretical economics.¹⁴³ When these mouldy school-truths are driven through in economic policy unmitigated by any reference to history or to context – like in the case of the World Bank and the IMF during the 1990's – they may cause considerable harm.

¹⁴¹ Streissler, op.cit., p. 431.

¹⁴² For a discussion of this, see Streissler, p. 439.

¹⁴³ Bücher, Karl, *Lebenserinnerungen*, Tübingen, Laupp, 1919, p. 197

Menger's economics was also disequilibrium economics, one of uncertainty and of increasing complexity over time. Menger introduces *monopoly theory* as the *general theory*. However, both neo-classical and Austrian economics became over time more simplistic and focused on frictionless perfect competition. Economics increasingly became *catallectics* – a science of exchange. Both traditions became more static and void of diversity, they became *Harmonielehren*. During the 20th Century theory stopped being only a starting point for analysis both in neoclassical and Austrian economics, a starting point that was continuously to be compared with historical reality. Theory was increasingly treated as if it were a description of reality itself.

Menger's original Austrian vision was a world of dynamic imperfect competition in a world pushing forward with 'the never-ending frontier of knowledge' as the engine of growth. If Menger was the prototype Austrian economist, Schumpeter was surely the most 'Austrian' of both the second and third generation Austrians. In our view the task in economics is now to reconstruct an appreciative economic theory based on the visions of Menger and Schumpeter, to resurrect an economics profession where 'subjective' theory finds an arena where it meets 'objective' facts.

In The Other Canon we have attempted to outline the characteristics of this type of theory, and how it contrasts with today's mainstream. The Austrian economics of Carl Menger and Joseph Schumpeter are valuable building blocks in this project. Like other *Erfahrungswissenschaften*, Menger's theory produced neither accuracy nor any positive theorems. Just like in The Other Canon and in the Historical School, 'truth' – and economic policy – will always be highly *context dependent*.

Menger, the original Austrian economist, was clearly an Other Canon economist. Echoing Other Canon criticism of mainstream economics since the publication of Ricardo's *Principles* in 1817, Menger chided Böhm-Bawerk – his successor to the Chair of Economics in Vienna – both for 'the obvious artificiality of his theoretical constructions' and for 'the contradictions between Böhm's fundamental ideas and the real world'. 144

¹⁴⁴ Streissler, op.cit., p. 433.

ⁱ 'The relation of one thing to another from which it may say to be descended or derived; position in a genealogical classification.', The Oxford English Dictionary, Oxford 1933, Vol. 4, p.212.

ii In Greek mythology, the woman whom Apollo granted the gift of prophecy, but – when she refused to return Apollo's

love – made the gift useless by decreeing that no one would believe her predictions.