

Johann Heinrich Gottlob von Justi (1717-1771): The Life and Times of an Economist Adventurer.

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Introduction: ‘State Adventurers’ in English and German Economic History.

The term *merchant adventurer* was applied to the earliest medieval English merchants who made their wealth and fame in new and hazardous markets (Carus-Wilson, 1967). A similar spirit of hazardous economic adventure *cum* economic career characterized the life of economist and social scientist Johann Heinrich Gottlob von Justi (1717-1771) as well as several of his cameralist contemporaries in Germany and Austria. Justi epitomizes the heyday of the German brand of mercantilist writing, cameralism. These traditions represent the reasoning on economics and state sciences that laid the necessary groundwork for the creation of all European nation-states and for the Industrial Revolution, but was later excluded from the more narrow and barter-based economics of the English tradition. Justi was both a synthesizer and a modernizer of this tradition, absorbing the important novelties of the 1700’s into the already existing consensus of the late 1600’s. Justi was, as far as we can judge, probably also the most prolific writer of all economists in any language, publishing a total of 67 books of which 8 works were translated into five languages (See Reinert & Reinert: ‘A Bibliography of J.H.G. von Justi’ in this volume).

As a profession, these early German-speaking economists stand out as being of a very different class and type than their English contemporaries. This is emphasized by Keith Tribe, the English-speaking author who in a very thorough work has devoted more time and space to Justi than anyone else in the English language (Tribe 1988). However, when comparing Justi’s writings with the economics traditions in the rest of the European continent – from Spain to Sweden and Finland – rather than with England, it is in fact the English tradition that stands out as being ‘different’. Whereas most early English economists were themselves merchants, the professional career of the typical German economist at the time tended to be tied to the administration of the many small German states. The activities of these German-speaking economists tended to cover a very broad spectrum. Their careers include both theory and *Praxis* – teaching, administration and entrepreneurship – and also activities on very different levels of abstraction: from theoretical philosophy to government administration and practical matters of production and starting new enterprises.

Justi and his contemporary economist adventurers Georg Heinrich Zincke (1692-1769, from Saxony) and Johann Friedrich Pfeiffer (1718-1787, from Berlin) all suffered similar tragic fates towards the end of an active life of teaching, writing, public administration and public entrepreneurship. They had all been soldiers as a preface to their eventful lives as economist adventurers or *gelehrte Abenteurer* (‘scholarly adventurers’). Both Justi, Zincke and Pfeiffer rose to fame as accomplished writers of economics and *Staatswissenschaften* (political science) and trusted administrators; but all of them ended their careers in varying degrees of disgrace, all accused of embezzlement. Some of the important works of Zincke and Pfeiffer are listed in the bibliography of this paper, for the works of Justi see our separate bibliography in this volume. Johann Joachim Becher (1635-1682), arguably the first German mercantilist (see Becher 1668), also suffered a similar fate. Forced into exile in Holland and England by his creditors in Vienna, Becher dies in London in deepest poverty. These economist adventurers – Justi himself calls them ‘State Adventurers’ (*Staatsabenteurer*) – were active in fields far beyond the work of their English contemporaries. Their *Praxisnähe* led them to alternate between the need for a better theoretical understanding of the world and the need for carrying their theories into practice.

From the point of view of today's society, Justi's career covered the functions of a university professor of economics and political science, an economic advisor to governments, a publisher and organizer of translations (*Übersetzungsunternehmer*), a personal national research council in several fields, a manager of government investments, a prospector of mines, and an entrepreneur of last resort on behalf of the State. As we shall see, his many books covered an unusually wide range of subjects, although not all with the same skill. In addition, for most part of his nomadic life, he edited his own journals.

Like the founders of German economics – Gottfried Wilhelm von Leibniz (1646-1716) and Christian Wolff (1697-1754) – the cameralists tended to be men both of theory and of action, of *Praxis*. Theory was there only as a basis for human action, an action in which they themselves wished to take part. Typically Johann Joachim Becher complains that 'he could have used his time better through inventions, practicing and traveling' (quoted in Klaus & Starbatty 1990: 14). No doubt, their inclination for practical action rather than theory alone, their shared enthusiasm for new inventions and their aspiration and efforts aimed at converting these inventions into practical innovations, led so many German cameralists into high-risk ventures and eventually into precarious financial situations, dependent as they were on the changing favours of rulers and noblemen.

The uneventful life of Adam Smith as a theoretical university professor and customs inspector – as far as possible removed from any practical problems of production and inventions – provides a stark contrast to the Cameralist drive to combine theory with *Praxis*, philosophy with entrepreneurship, and invention with practical innovations. Their respective theories of economic development reflect their respective lives: Adam Smith built an economic theory based on barter and trade, where the conditions of production, knowledge, technology and inventions were exogenised. To the Cameralists nothing was exogenous, their criterion was whether a factor was relevant or not. Their theories represented a *Praxisnahe* and Faustian-holistic attempt to capture all relevant factors: *zuerst war die Ganzheit*. From Adam Smith's system, based on trade, economics developed as a *Harmonielehre*¹ where 'passivity as a national strategy' would create automatic harmony, and where structural change and novelty was exogenised. The cameralist system was one of production and of nations in competition, where economic development meant radical structural change, and where learning, new knowledge, new technology, and new institutions to handle them, had to be continuously created. In this setting the nation-state – like any big corporation today – needed a well-established strategic vision of where it was headed in order to maximise the welfare of its citizens. As Tribe (1988) perceptively points out, at the core of German economic theory was 'Man and his needs', *der Mensch und seine Bedürfnisse*.

Werner Sombart divided the science of economics into two categories, the Renaissance economics tradition which he calls **activistic-idealistic**, and the economics from Adam Smith onwards which he calls **passivistic-materialistic** (Sombart 1928: 919). This article focuses on Johann Heinrich Gottlob von Justi and his contemporaries in the period of 30-40 years before the publication of Adam Smith's *Wealth of Nations* (1776). We shall argue that Justi and his contemporaries, while still working in the activistic-idealistic Renaissance tradition that we call The Other Canon of economics², had already absorbed the most important contribution from the passivistic-materialist tradition started by Dutchman Bernhard Mandeville (Mandeville 1714/1724): the role of self-interest as an important propellant of economic

¹ See Robbins (1952) for a discussion of economics as *Harmonielehre*.

² See www.othercanon.org

growth. We claim that this was a type of economics that represented, quoting Schumpeter's characterization of Justi's economics, 'laissez-faire with the nonsense left out' (Schumpeter 1954: 172).

1. Justi's Life.

Three accounts of Justi's life and work have been published, one in French (by D.M., an anonymous female admirer, in 1771, reprinted in 1777) and two in German (Roscher 1868 and Frensdorff 1903/1970). Additional biographical information, mainly attempting to correct the misleading information first published in the French journal, is found in Beckmann's economic periodical (Beckmann 1770-1806, Vol. 10, 1779, pp. 458-460) and in Höck (1794).

In addition, during Justi's own lifetime, his colleague Georg Heinrich Zincke (see above) also frequently reports on Justi's whereabouts, his new discoveries and publications in his periodical *Leipziger Sammlungen von Wirthschaftlichen Policey- Cammer- und Finanz-Sachen* (Zincke 1746-1767). The *Generalregister* – general index – to the first twelve volumes of Zincke's *Leipziger Sammlungen* (1761: 609-610) lists the 41 journal entries dealing with Justi's life and work. It should be noted that his contemporary Zincke seems to be the only person who reports on Justi in a generally favourable tone. Zincke frequently refers to Justi's humility, a term otherwise not normally connected with his character. Notes in English on Justi's life are found in Small (1909) and Tribe (1988), as well as in Tribe's article in the *New Palgrave* (Tribe 1987).

Johann Beckmann – an important successor in Justi's economic tradition and the editor of the third edition of Justi's book on manufacturing and factories (Beckmann 1789) – was extremely upset by the poor quality of the first account of Justi's life, full of factual errors (Beckmann 1770-1806, 1779: 459-460)³ These misleading and exaggerated accounts were later spread to other publications, adding to the confusion about a life that was adventurous enough in real life. 'Justi would have deserved that the story of his strange fate be collected and published', says Beckmann in his *Physikalisch-ökonomische Bibliothek* (Vol. 10, 1779: 459). Our account here is based on the accounts found in Zincke (1746-1767), in Roscher (1868 & 1874), in Beckmann (above) and, above all, in Frensdorff (1903/1970) which gives by far the most detailed account of Justi's life. Recently Rieter et. al. (1993) provides bibliographical and also some biographical information on Justi.

As is to be expected in the biography of a personality sometimes surrounded with an air of almost mythical qualities, the first disagreements around the life of Johann Heinrich Gottlob von Justi start with his date of birth. On Beckmann's authority the most likely date was considered December 25, 1720, in Brücken an der Helme, Sangerhausen (near Halle) in Thüringen. Other candidates are 1705 and 1717. Roscher (1868:78) assumes that the difficulty of tracing Justi's birth may be due to his being born out of wedlock. However, Frensdorff's later research makes it likely that Justi was born on Christmas Night 1717, and baptised in the local Lutheran church on December 28.

³ 'Der ganze Aufsatz ist aus so vielen Unwahrheiten und falschen Urtheilen zusammengesetzt, dass es eine weitläufige Arbeit seyn würde, ihn durchaus zu verbessern'. ...'Mit einer unbegreiflichen Unverschämtheit hat diese Dame, die durch Verschweigung ihres Namens ihre Ehre gedeckt hat, Unwahrheiten von Sachen hingeschrieben, die im geringsten nicht bekannt gewesen sind'.

Justi's father, George Heinrich Justi, a court official, died already on November 20, 1720. Justi had two elder sisters, about whom we know nothing. His mother remarried, and from this marriage Justi had a half-brother, Christoph Traugott Delius, born in 1728, and later author of a work on mining. Initially the two brothers enjoyed good relations, and Christoph contributed to Justi's first publication, the 'Deutsche Memoires', which was published in 1741. (Justi 1). Much later Christoph published a work on mining (Vienna 1773), and – like his brother – found employment in Austria. Later, the relationship between the two brothers deteriorated into 'sharp polemics' around Justi's publications on mining and geology. It must be noted already here that while Justi's publications in economics and political science represented the state of the art – it is probably fair to say that he was the man who first systematised the science of economic policy and public administration – his more journalistic writings seem to be of varying quality.

We do not have complete knowledge of Justi's education. In his writings, he informs his readers that he attended the Gymnasium in Quedlinburg (Justi J2, 1754: 457). This school was at the time under the leadership of Tobias Eckhart, a well-known educator. The information about his university years is contradictory, Höck claims he studied cameralism in Jena under Zincke, but Frensdorff's research concludes that neither did Zincke ever teach in Jena nor did Justi ever study there (Frensdorff. 1903/1970: 7). Frensdorff found, however, Justi's matriculation at the University of Wittenberg, dated October 19, 1742. Already here, Justi published his first collection of essays, written by himself and others (Justi 1). His first written work, *Der Dichterinsel* ('Poets' Island'), was probably written in 1737, but only published in 1745 (Justi 3, reprinted in Justi 38).

Before going to university, according to the author himself, Justi had already started his career as a soldier in 1741, during the Austrian War of Succession (1741-42). In the army he finds a mentor in Lieutenant Colonel Wigand Gottlob von Gersdorff, who awakens Justi's interest in the sciences. The meeting with von Gersdorff is a turning point in Justi's life. Gersdorff makes him his private secretary and, at the end of the war, supplies him with the necessary means to pursue his law studies in Wittenberg. Here Justi studies under Prof. Augustin Laysner, and on July 18, 1744 he defends his thesis *De Fuga Militiae*, on the punishment for military dissertations (Justi 2).

After finishing his thesis, Justi goes back to the army, but his mentor von Gersdorff falls in the Battle of Hohenfriedberg on June 4th, 1745. At this point Justi leaves the army, but keeps his residence in Dresden and publishes his first journal *Ergetzungen der vernünftigen Seele aus der Sittenlehre und der Gelehrsamkeit überhaupt* (Justi J1). Here, in 1746, Justi marries Gertrud Feliciana Johanna Pietsch, daughter of a priest. The marriage is not a happy one, the itinerant Justi seems not always to be accompanied by his wife. After the marriage ends in a dramatic divorce, Justi writes a two-volume work on marriage law (Justi 23).

During 1747 Justi leaves Dresden and moves back to the county of his birth, Sangerhausen in present Sachsen-Anhalt, where he enters the service of the widowed Duchess of Sachsen-Eisenach. Here, in the fourth volume of his monthly journal (Justi J1), the author declares that the journal from now on will also contain material on metaphysics and philosophy. He writes a prize essay on monadology for the Academy of Sciences in Berlin (Justi 5), and receives a prize of 50 ducats. However, he comes down on the side of Newton and against the German tradition in this debate, and arouses the rage of several authors (Anonymous 1747 & 1748). His most severe critic, however, is Christian Wolff, who writes about 'an arrogant and audacious, and at the same time impertinent quibbler called Justi' '(einen hochmüthigen und

verwegenen, dabei unverschämten Rabulisten, namens Justi) (quoted in Frensdorff 1903/1970: 21).

After this stint at metaphysics and philosophy, his last, in the summer of 1750 Justi leaves both Germany and his previous career behind and moves to Austria. His stay in Vienna will set the path that he will follow for the rest of his life. Until now he has covered a whole range of subjects with his journalistic abilities, but his ‘speculative’ period is over. From now on he starts studying economics as it was defined at the time. Justi starts experimenting with producing a colorant from local plants to serve as a substitute for the expensive indigo. His first publication in Vienna (Justi 11) is on this subject.

Justi probably did not have a job when he left for Vienna. He was there because of the plant experiments, and while there he made himself known through a publication on international law which was relevant in Austria at the time (Justi 12). This caused him to be called to a chair in *eloquentia Germanica*, German language, rhetoric and writing (see Justi 10 & 17). This was a job where lawyers were seen as the best qualified. Justi arrives in Vienna as Empress Maria Theresia reorganises the Austrian administration, and his professorship is at the Theresianum, which she founded in 1746. The scope of this academy is to ‘re-educate’ the impoverished Austrian nobility. When Justi later translates and edits a French book on the conversion of the old fashioned nobility to a merchant nobility (Justi 19), this is a reflection of the same challenges that led to the foundation of the Theresianum as a *Ritterakademie*.

Justi’s appointment is confirmed on August 31st, 1750, and his inaugural lecture on December 16 is on ‘The Connection Between the Flowering of the Sciences and the Means which Make a State Powerful and Happy’ (Justi 13). This work is published, with continuous pagination, following Justi’s complete and succinct plan, syllabus, and student exercises for the teaching of the cameral sciences at the Theresianum, a most impressive work. The latter publication is dated in Vienna on October 15, 1752, and both works are published, together, in 1754, in Leipzig. This is, in our view, perhaps the most interesting of all Justi’s works, laying the foundations for his work on cameralism, which is all subsequent to this work.

This basic work is, surprisingly, an exceedingly rare publication. An extensive search has only found seven copies in public libraries worldwide, four in Germany, one in Austria (*Österreichische Nationalbibliothek*) and two in the United States. It was probably never made ready for publication before Justi left Vienna in 1753, and was only published in Leipzig in 1754 – without indication of a publisher – by an admirer who is known by his initials D.E.v.K., and who also wrote an introduction. Frensdorff (1903/1970: 27, footnote 4) also comments on the rarity of this book which is found neither in Göttingen nor in Berlin, he says. He only knows about its existence from the Berlin catalogue.

It seems then, that Justi spends his first two years in Vienna organising the field of cameral sciences as an academic subject. In 1752, he gets the Professorship for *Praxis im Cameral-, Commercial- und Bergwesen* (i.e. mining). On the subject of minerals and fossils Justi publishes his first books in 1756 and 1757 (Justi 18 & 21).

Justi leaves Austria about the middle of the year 1753. The details surrounding his departure are even less clear than those of his arrival. The theories of why he left are many. It could be either a) because he created large expectations around new silver mines in Niederösterreich, which never really materialised, or b) had never converted to Catholicism and came in conflict with the Jesuits, or c) as the loyal colleague Zincke reports in the *Leipziger*

Nachrichten (Vol. XI (1755): 260) ‘because of poor health caused by the Viennese air’, which was probably just an excuse, or d) all of the above. But, regardless of the reasons for his departure, Justi’s legacy in economics and public administration continues in the official economic textbooks in Austria well into the 1840’s, through the books of Sonnenfels that were based on Justi’s system and teachings (See Tribe 1988)

At the end of 1753 we find Justi in Mansfeld, near Halle, in his native Saxony. Here he founds a new periodical *Neue Wahrheiten zum Vorteil der Naturkunde und des Gesellschaftlichen Lebens der Menschen* (Justi J2). As Frensdorff puts it, ‘Justi cannot live without such a medium in which to communicate with the public’.

In 1755 Justi moves to Leipzig, at the time the most important German town of authors and publishers. His first large works on the cameral sciences are published here in the same year as his arrival (Justi 14 & 15). Here he also publishes, anonymously, a tract on monetary policy: *Entdeckte Ursachen des verderbten Münzwesen Deutschlands* (Justi 16, reprinted in Justi 50, ‘Gesammelte Politische und Finanzschriften’). But in the same year Justi moves on again, this time to Göttingen, where he is the first person to teach economics at the local university. As in Vienna, his teaching is combined with a practical job in the local administration.

During the Seven Years’ War (1756-1763), Prussia, allied with England, fights Austria (Maria Theresa) allied with France, Russia, and Saxony-Poland. Here Justi gets himself involved in international politics, plotting against the catholics and particularly against the Jesuits as ‘dangerous enemies’. This was Justi active as a political *Projectmacher*, in order to get paid for his intelligence work and political writings. The most fantastic element in this story is the supposed existence of a Jesuit treasure to be used to convert Protestants. The whole story is *Romanhaft* – like a work of fiction – writes Frensdorff. The political intrigues spun around and by Justi are well covered in Frensdorff (pp. 38-58).

Instead of delving into the details of political intrigue during the Seven Years’ War, we shall devote a paragraph here to Justi’s position towards the Jesuits and his place in the history of anthropology. When Justi in 1762 writes his remarkable work admiring Chinese and Peruvian institutions and culture *Vergleichungen der Europäischen mit den Asiatischen und andern vermeintlich barbarischen Regierungen* (Justi 64), he adopts the non-eurocentric attitudes of the Jesuits, exemplified by their work both in China and in South America, which got them into conflict with most European powers and with the Church, and led to their order being outlawed in most of Europe. Here Justi continues a tradition started by Giovanni Botero (1544-1617) and lasting until after Christian Wolff, praising the wisdom of Chinese rule and Chinese philosophy. In 1723 Wolff was dismissed from the University of Halle for suggesting that in Chinese Confucianism one could find moral truths without the help of divine revelation. Wolff was subsequently ordered to leave Prussia within 24 hours, by punishment of the rope. (Drechsler 1997: 113-114). We suggest that Justi here is a late example of a Renaissance ethnographic tradition, typified by Giovanni Botero (1622), which celebrates the diversity, uniqueness and inventiveness of human cultures in response to different climatic conditions worldwide. (See Roscher 1878: 280 for the connection between Botero and Wolff in this tradition)

We see Botero’s tradition as the ethnographic counterpart of Sombart’s **activistic-idealistic** tradition in economics, which from Adam Smith on gradually yields to a **passivistic-materialistic** traditon, although pockets of activistic-idealistic economics survive well into

the 20th Century with the creation and defense of the welfare state. During the 1770's, the decade of Adam Smith's *Wealth of Nations*, a gestalt-switch takes place in the attitudes of the Europeans on both sides of the Atlantic towards non-European cultures. The Jesuits, who were the protectors of South American aboriginals and of Chinese philosophy, are suppressed by Pope Clement XIV in 1773. The draft of the United States Constitution, dated 1775, discusses the relationship of the Federal Government to 'the Indian Nations'. One year later, in the Constitution itself, these are reduced to 'Indian tribes'. In the periphery of Europe, in Trondheim in Norway, the *Seminarium Lapponicum*, established to teach priests aboriginal Saami language and culture, is closed in 1774. From now on the Saami people of Norway lose their rights to land, and are forcefully integrated into Norwegian society. An important contributor to the philosophical foundation for the **passivistic-materialistic** tradition, both in economics and in anthropology, is John Locke (1632-1704). Locke's *Two Treatises of Government* (1690) establishes the legal foundations for taking over aboriginal land (discussed in Oskal 1995). Justi's study of China and Peru is worthy of a study in itself.

In June 1756 Justi's wife Gertrud leaves him, 'because her husband no longer maintained her'. A maid claims she has not been paid for five years' service to Justi in Vienna, Saxony and Göttingen. The legal divorce proceedings are long, and the reciprocal accusations are strong. The court allows Gertrud to sell Justi's books in order to cover alimony, but Justi accuses her of plotting, with her lawyer and lover, Bergmann – by whom she is pregnant – to steal his belongings. Justi's characterisation of his former wife is 'the craziest and most disgraceful woman under the sun' ('*die allerschändlichste und verrückteste Weibespersion unter der Sonne*'). The court allows Justi's wife to auction off his books, so when he writes his important work on Manufactures (Justi 25), he has no access to his library. The court papers put the wife in a bad light, and it is remarkable that the couple's children stay with their father. Of Justi's children we know that a daughter was an early proponent of women's suffrage. Both Justi and his wife remarry, his wife marries her lawyer Bergmann.

At this point, Justi moves to Denmark. We have devoted the whole of section 2 of this article to Justi's Danish interlude, which only lasted from 1757 to 1758. This is the part of his life which is the least covered so far in German and English literature, and for which there are good Danish sources.

After his stay in Denmark, Justi keeps his residence in the Northern town of Altona, outside Hamburg, not far from the Danish-German border at the time. Here, for the first time, he concentrates his writings around political issues (Justi 24, 26, 27 & 28). Judicious national rule – Justi uses the term *Staatsklugheit* – had since Botero's time been part of the same social science umbrella as economics. In his work on the political equilibrium in Europe, from 1758, *Die Chimäre des Gleichgewichts von Europa* (Justi 24), Justi is of the opinion that when King William III of England originally promoted the idea of political equilibrium in Europe, this was just an excuse for war. Equilibrium is a preposterous idea, it corresponds neither to Justice nor to *Staatskunst*, says Justi. He takes the opportunity to define the real wealth of a nation in mercantilist terms, praising Colbert. 'Every nation has the right to carry its perfection and happiness as high as at all possible' says Justi. In 1759 follows *Die Chimäre des Gleichgewichts der Handlung und Schifffahrt*, also published by Iversen in Altona (Justi 28).

In 1759 Justi continues his journal 'Neue Wahrheiten' (Justi J1) under a new title: *Fortgesetzte Bemühungen zum Vorteil der Naturkunde und des gesellschaftlichen Leben der Menschen*, where the place of publication is Berlin and Stettin. Again Justi's lack of political

correctness gets him into trouble during the Seven Years' War. In one of the issues Justi criticizes the 'hitherto unknown cruelties' committed during warfare under the allied Empresses of Austria and Russia, Maria Theresa and Catharine, 'disgracing their gender'. This causes a protest by the Imperial Austrian Ambassador, and when Russian troops occupy Berlin for ten days in October 1760, Justi's publication, with many others, are burned in public by the hangman. His two Unites States imprints (Justi 26 & 42), are also protests against what Justi saw as an uncivilized form of warfare.

Commencing in the spring of 1760, the most productive of all Justi's years of publishing, his books are published with a Berlin imprint. Justi is in the service of Frederick the Great, which has long been his goal (Frensdorff 1903/1970: 81). In Berlin, he takes the opportunity to start fresh studies of chemistry (Justi 36), history (Justi 58), and the natural sciences again (Justi 58, 59, 61, 62), in part responding to the prize essays offered by the scientific academies.

Several important publications see the light during his Berlin years, among them his two-volume textbook on the 'Principles of Economics Policy', *Die Grundfeste zu der Macht und Glückseligkeit der Staaten; oder ausführliche Vorstellung der gesamten Policey-Wissenschaft* (Justi 45). A second edition is published in 1774, three years after Justi's death. Justi is also active as a translator, and between 1762 and 1765 he is the editor of the first four volumes of *Schauplatz der Künste und Handwerke* (Justi 56), a serial publication on practical matters of arts, crafts, and industry, with illustrations. The *Schauplatz* is a translation of parts of a work published by the French Academy of Sciences, a typical publication of the time in most European countries. The series continues to be published in Germany until 1805.

The high cost of living in Berlin with his new family and the children from the first marriage, a total of six children, drives the restless Justi to take up residence in Bernau, north of the city. For the rest of his life, however, he will stay in Prussia and in the Brandenburg and Neumark area, mostly east of Berlin in what is now Poland. With his income from book publishing and a pension of 200 *Thaler*, Justi lives in modest welfare. He buys property, and near the town of Soldin, present-day Mysliborz, he starts constructing factory buildings.

About this time Fredrick the Great, the Prussian King, receives Justi in an audience, and Justi gains his trust. In 1765 Justi is called back to public service, with the position of *Berghauptmann* in Landsberg an der Warthe, the present-day Gorzów Wielkopolski. His annual salary is now 2000 *Thaler*, ten times his previous pension. He moves to Landsberg and engages in a project to start producing metal sheets and plates, probably a project of his own design. This project is to cause his demise.

Justi has been in his new position less than a year when the first conflicts start. Two merchants in Berlin take him to court for the payment of a debt of 42 *Thaler*. Justi's extremely arrogant behaviour in this and other incidents creates him many enemies. His eyesight starts failing, and his increasing aggressiveness and paranoia with diminishing eyesight recalls the fate of another German economist, Eugen Dühring, more than 100 years later.

In June 1767 Justi declares to the king that his work on producing metal sheets is so well advanced that he will soon be able to satisfy the demand of the whole Prussian territory for such products. The King promptly orders a 30 per cent import duty on these products. More serious than the protracted legal quibbles over 42 *Thaler* is soon the fact that Justi's factory

fails to deliver on its promises, and complaints about his administration pour in from all sides. The Prussian administration decides to make an audit of Justi's administration.

Justi immediately complains that the two-member commission appointed to investigate his case consists of two of his sworn enemies. His complaints are to no avail, and in January 1768 the case is passed on to the courts. As Justi previously saw the commissioners plotting against him, he now sees the judges doing the same thing. His untiring and at times creative journalism is now focused on producing complaints against the courts. In February he is placed in domiciliary arrest, but is later transferred to Fortress Küstrin, today's Kostrzyn, where he is to spend the rest of his life.

Justi claims he is no richer than before, and that he has had to decide on the construction of the factories without any assistance from his superior. In June 1768, however, Justi is sentenced to pay back to the state 2878 *Thaler* and 6 *Groschen* (As a comparison his salary in 1765 was 2000 *Thaler*). Legal battles follow, and Justi is convinced of his own innocence. He continues to write and publish: a book on geology and the history of the planet Earth (Justi 66) and the third volume of the *Chymische Schriften* (Justi 36) are written in jail. The book on geology and the history of the planet Earth gets Justi into sharp polemics with his step-brother Delius. His writings in jail, however, are not particularly marked by his condition. The foreword to the third volume of the *Chymische Schriften* is dated March 25, 1771, and published the same year.

On July 21, 1771, Justi dies in jail in Fortress Küstrin, actively dictating and writing until the last day, and being convinced that he will in the end be absolved. Justi was only 54 years old, and had been actively writing since 1744, for half of his life. He was the child of a century when it was normal to write and publish profusely, as did Christian Wolff. As Helge Peukert points to in this volume, Justi was an idealist, clearly belonging to the Renaissance-based **activistic-idealist** economic tradition, but he was a very pragmatic idealist. But at the same time he focused clearly on **principles**; economic policy was not to be the product of some haphazard gut feelings. Justi brings together qualities that are not commonly combined. He combines practical sense and pragmatism with a sense for the importance of principles – getting to the foundations of all issues – with a Germanic sense for systematization and order. In his short outline for the teaching of cameral sciences in Vienna (Justi 13), Justi's first publication on this issue, this powerful combination is succinctly brought together.

The most important label attached to Justi's life and work is that of a *Projectmacher* or *Projecteur* – a 'project maker'. There is nothing intrinsically pejorative in the term, but it is clearly being used as such by Justi's contemporary commentators. 'Finally he found the death of most *Projecteurs*, in jail on July 20, 1771' says Beckmann laconically about him (Beckmann 1770-1806, Vol. 10, 1779: 460). The main dictionary of the German language, which fills 110 cm on the shelves, reports the word *Projectmacher* used in 1755 (Grimm & Grimm 1889: Vol. 7, column 2164), but does not note that it has a pejorative connotation.

Justi himself comes to our assistance here: true to his fashion of writing himself out of personal problems, as with his failed marriage, in the *Gesammelte Politische und Finanzschriften* he has written a 25 page essay on 'Thoughts about Projects and Project Makers'; *Gedanken von Projecten und Projectmachern* (Justi 50, 256-281). Initially he defines Project Makers as something very positive: all human beings are – or ought to be – project makers, our lives are projects. He indicates that most people would benefit from having a much more conscious relationship to their lives being such projects. Justi here raises

the issue of *conscientisation* that Brazilian educator Paulo Freire saw as a key element in overcoming poverty. People must see that their life is not only a result of the invisible hand of Providence shovelling them about – for the relationship between Adam Smith and Providence see Viner (1976) – but that they can actually affect the course of their own life. Such *conscientisation* is, of course, a necessary starting point for any act of entrepreneurship or innovation. People should, according to Justi, start seeing their lives as projects.

But, Justi says, changing the subject from private to public projects, some people make public projects that are no better than ‘nice wishes’; they are completely unrealistic. And for this reason, and due to the many unserious projects presented, Justi informs us that the word *Projectmacher* has taken on ‘a contemptuous and almost humiliating meaning’ (*‘heut zu Tage eine gar geringschätzig und beinahe schimpfliche Bedeutung erlangen hat’*.)

‘Project making is normally the last refuge of people whom one would call *adventurers*’, says Justi. (*Das Projectmachen ist gemeiniglich die letzte Zuflucht dererjenigen (sic), die man Avanturiers zu nennen pflegt*, p. 266). He then goes on to tell a story of a somewhat unfortunate and misunderstood *Projectmacher* whose intentions were very good. This man’s story has striking similarities to Justi’s own, among other things he lived in Vienna, and the story towards the end develops into a defence of Justi’s own actions. Justi’s *Projectmachen* made him an *Avanturier*, a *Staatsabenteurer* or ‘state adventurer’ as he also calls this group of people.

The three most prominent German economists of Justi’s time all had a career as *Staatsabenteurer*. Justi’s colleague Zincke, who was 15 years older, was jailed for three years on charges of economic embezzlement at the service of Duke Ernst August von Sachsen-Weimar. Pfeiffer, the great anti-physiocrat (Pfeiffer 1780), an economist one year older than Justi and almost as productive, was engaged in mining as was Justi. He founded a starch factory, but was later accused of embezzlement trading wood and spent some time in jail in Spandau.

There are important common elements between our German *Staatsabenteurer* and the English Merchant Adventurers, like Sir Francis Drake. They were all working on behalf of their governments. But while the merchant adventurers were largely often pirates with a government licence in what most of the time in the end was a zero-sum-game – the gold of Spain changed hands and got English owners – Justi and the mercantilist *economist adventurers* were both theorising and putting into practice an economic theory where new learning and new institutions, producing under increasing returns, increased the size of the economic pie. In spite of their misfortunes, they represent a type of theorising and practice that was a necessary passage points for the development of modern Europe.

2. Justi’s Influence in Denmark-Norway.

As already noted, we have located 67 books written by Justi and 7 periodicals written and edited by him. Eight of his books have been translated – in thirteen different translations – into five languages, French, Spanish, Dutch, Russian and English. Yet Justi probably had the most profound impact outside Germany and Austria in Denmark, a country whose language is not among those listed. Some of his most important works were published in German in Copenhagen (Justi 25 & 50). His presence in Copenhagen left clear traces in the Danish

economic journal of the time, *Danmark og Norges Oeconomiske Magazin*, his repertoire of policies are all found in a posthumous work of Ludvig Holberg, the most famous Danish-Norwegian author of the 18th Century, and his strong influence on Danish economics at the time is well documented in a 1902 Danish doctoral dissertation (Bisgaard 1902). The Danish sources make it possible to reconstruct Justi's influence here, in the country where it was probably stronger than anywhere else outside the German-speaking area. Since these sources of Justi's life and work are locked into the Danish language, which is relatively inaccessible, we shall devote a section of this article to Justi's interlude in Denmark, although it lasted only about a year.

The reason we find Justi in Copenhagen in 1757, is that he was on his way to Norway, until 1814 part of what was then the Kingdom of Denmark-Norway. Justi's wife, from whom he was about to be divorced, also heard rumours that he was on his way to Norway (Frensdorff 1903: 60). On August 27 1757, Benjamin Dass, the former dean of the *Kathedralschule* in the Norwegian town of Trondheim, writes a letter to a compatriot, the historian Peter Fredrik Suhm, where he complains about the annoying German who, according to the rumours, is about to be named chief mining inspector in the Norwegian town of Kongsberg (Frensdorff 1903: 61). Justi probably never made it to Kongsberg. Frensdorff claims what he did in Denmark was to produce a treatise on the cultivation of the heaths of the western part of the country, Jutland. According to the main Danish dictionary, Justi worked as customs director in Copenhagen from 1757 to 1758 (Salmonsens 1922, Vol. XIII, pp.273-274) Both claims may well be true.

Although we do not know what was the cause and what the effect, the fact is that Justi's sojourn in Denmark coincided with an explosive interest in economic development and economic theory in Denmark-Norway. Before 1755 the only author of economics in Denmark-Norway had been Ludvig Holberg, but from the mid-1750's there came a wave of new interest in economics, 'like a cloudburst after a period of drought' (Bisgaard 1902: 16). Both in the spirit of the time and in the spirit of Justi, the Danish Crown in 1755 asked its subjects to write treatises on practical economics. In spite of German being a second official language in Denmark, the works of Christian Wolff had been translated into Danish, and had an enormous influence there. This interest in practical economics resulted in an early economics journal, *Danmark og Norges Oeconomiske Magazin*, which was published from 1757, the year of Justi's arrival, until 1764. The editor of this journal was Erik Pontoppidan, who after a distinguished career as reverend of the royal castle of Fredriksborg and bishop of Bergen, Norway, had been named chancellor of the University of Copenhagen in 1755.

In the second volume of *Danmark og Norges Oeconomiske Magazin*, dated Copenhagen 1758, Pontoppidan lists recently published economic literature. As item 14 of a list of 22 new publications, we find a book that is almost certainly Justi's: *Patriotic Thoughts on Manufacturing and Factories (Patriotiske tanker over Manufactur- og Fabrik-Wæsenet)*. This is the subject of the work Justi wrote while in Denmark, and also published there (Justi 25). 'The author', says Pontoppidan, 'who is a patriot not by birth, but by choice, has held weekly lectures over this and other economic subjects, thinks that he finds much contradiction (to his ideas), and does not forget to meet these with the refusal he finds appropriate' (*Danmark og Norges Oeconomiske Magazin*: 1757).

Just as in Austria and Germany, Justi's works are thus celebrated, while his abrasive personality is not. In Copenhagen he is regarded as 'our great author' and 'the great man' and the hope is expressed that 'we might see a Danish von Justi arise' (Bisgaard 1902: 26), but on

the other hand his many contradictions are noted. The most conservative Danish economist at the time, O. D. Lütken, is of the opinion that Justi's writings about the tilling of new land, published in Justi's journal 'Neue Wahrheiten', or 'New Truths' (J2 in our Justi bibliography), ought to have been called 'Neue Unwahrheiten', or 'New Lies'. On the other hand, even Lütken, his fiercest critic in Denmark, admits that when Justi writes about luxury 'he shows common sense, much erudition, and much practice'. (Bisgaard 1902: 26)

Ludvig Holberg (1684-1754), the first economist in Denmark-Norway, is that nation's great literary figure of the 18th Century, with a field of publication almost as wide as Justi's, but whose literary works truly excel also on an international level to this very day. A list of ten best-selling books in Denmark-Norway towards the end of the 18th Century would have contained the Bible plus nine of Holberg's works. Like his contemporary Jonathan Swift, Holberg was using his authorship in order to mock the remnants of scholastic science still present in their days, also in matters of economics (see Reinert 2000a). Justi dedicates a chapter to the discussion one of Holberg's works in his *Historische und Juridische Schriften* (Justi 46, Vol. II, Chapter 3)

In the third and posthumous edition of Ludvig Holberg's work *Description of Denmark's and Norway's Ecclesiastical and Secular State (Danmarks og Norges Geistlige og verdslige Staat eller Beskrivelse)* (Holberg 1762), we find a whole new chapter (Chapter 16) on 'Those Means and Measures which have been Introduced for the Improvements of Manufactures and Trade since the last Edition of this Work or, more correctly, since the Commencement of His Majesty's Government' (i.e. since the ascent of Fredrik V in 1746). Holberg clearly did not write this chapter, since most of the dates referred to are after his death. In this chapter we find a *résumé* of the policy legacy that Justi left in Denmark.

This new chapter of 73 pages describes the whole arsenal of policy measures typical of the pre-Smithian 'National Innovation System' of Justi and his contemporaries; encouragement of entrepreneurship, cultivation of new land, the introduction of manufactures, mechanisation where possible, and the maintenance of competition. The importance of synergies and linkages between different economic activities, the fact that the presence of manufacturing promoted growth in agriculture – a most important discovery of the early 18th Century – was at this time reaching the periphery of Europe. This effect was soon to be subject of a session in the Swedish Royal Academy (Schönberg 1772) and of a Ph. D. thesis at Åbo Akademi, the university in present-day Turku, Finland (Gadd 1772). As we shall return to under section 6, this is one of the important early 18th Century discoveries that virtually died with Adam Smith.

In 1747 privileges are given to foreigners who put up new industries in Denmark-Norway. Holberg (or the person who writes in his name) analyses that in a country with little manufacturing industry, industrial goods are very expensive, even though food is cheap. Therefore foreigners are called for in order to establish manufactures. The argument is based on the importance of knowledge, a type of argumentation which is completely alien to Adam Smith: it will take too long 'to teach the children of our own country' (Holberg 1762: 617). At the same time, there is full awareness of the role of competition in order to render manufactures inexpensive: 'It is necessary to call in foreign manufacturers, in order to induce competition between these and Denmark's own manufacturers in order to achieve good buys for manufactured goods' (Holberg 1762: 617)

In 1752 the Danish King gives 10 years tax holiday for the cultivation of new land in Norway. In another decree the King informs the Norwegians about their duty to build manufactures, and at the same time Norwegian merchants who purchase goods from factories in Copenhagen, rather than from outside the Kingdom, are given extra credit as an incentive. Also when it comes to the role of luxury, ex-bishop Pontoppidan and Holberg come down on the pragmatic middle way between Mandeville's embrace of luxury because it creates jobs and the previous rejection of luxury as a sin. Luxury was accepted, in Justi's spirit, when it caused employment at home where there would otherwise be idleness.

No foreign economist was so influential in Denmark-Norway as Justi, says Bisgaard (Bisgaard 1902: 24). This was not because of his originality, he assures, but rather because of the accessibility of his work compared to the 'impenetrable' Zincke, his contemporary. Justi reflects the inclinations that are found in Danish literature at the time, says Bisgaard, 'relatively liberal, fairly humane, has a healthy scepticism towards monopolies, privileges and guilds, emphasises the role of agriculture for the economic well-being of the people, and continuously reminds the King about his duties towards the people' (Bisgaard 1902: 24).

In the 18th Century the enlightened king becomes the dictator of what we would call 'the developmental state'. This is Christian Wolff's ideal of the 'Philosopher King', expressed in a work that was also translated into English (Wolff 1750). In the Marxist analysis of Justi and his contemporaries this aspect was also emphasised: 'The apparent absolute ruler is thereby made responsible for the promotion of capitalism' ('*Der scheinbar absolute Regent wird somit eigentlich Beauftragter des Bürgertums zur Förderung der Kapitalismus*') (Autorenkollektiv 1977: 190). In this perspective Justi appears as *Systematiker der (anti-) kameralistischen Ökonomie der Manufakturbourgeoisie* (Autorenkollektiv 1977: 513). While Bisgaard emphasises Justi as a promoter of agriculture, very much on the Danish agenda at the time, it is equally true that he was a promoter of manufacturing. Justi may correctly also be considered an anti-cameralist, in that he absorbed the important 18th Century elements into traditional cameralism. This will be discussed in section 5.

As already mentioned, what made Justi so influential in Denmark was not his originality, most of his economic policy measures were contained in other works and the majority had been in use around Europe since the late 1400's. But Justi was accessible: 'His language flows easily, his expressions are clear, his presentation of the single points is easy and penetrable, this becomes very clear when comparing his *Staatswirthschaft* with his contemporaries....Last but not least, (Justi) systemathises: he treats everything in one place. Everything that one otherwise had to look up in many different publications, with many different authors, was immediately at hand with von Justi. One did not look in vain in his works, that was the main thing. And when he even in his presentation, genuinely German as he was, piles together a whole range of subjects, material of the kind that one at that time, under the very extended meaning of the word, called economics, he *had to* impress our novices, who came to look upon him as a wonder of thoroughness and erudition' (Bisgaard 1902: 25).

Justi was the first author to gather together, systematize and make into a science the practice of economic policy and public administration. To use a sentence from *System des Finanzwesens* (Justi 60: 4) singled out by Priddat, this science comprises 'the sciences of trade, manufacturing, town and rural economy, and (it) contains all the principles which make all branches of economic life – the source of all wealth – to flower' (Priddat 1998: 22). An active and enlightened economic policy in 18th Century Denmark created a healthy industrial

and agricultural basis that made it possible to pursue relatively liberal policies in the 19th Century.

3. Systematizing Justi's Writings.

Justi had an immense literary production, on a variety of subjects. Johann Georg Meusel (Meusel 1802-15) lists 48 books by Justi published between 1741 and 1771. In the bibliography by Reinert & Reinert in this volume the number of publication attributed to Justi increases to 67 books and 7 journals. Roscher (1868: 82-84) classifies Justi's writings into six categories. In the following we have changed Roscher's classification to sort Justi's publications as much as possible in accordance with today's academic fields. This has resulted in ten categories rather than Roscher's six.

Justi is accused by Roscher of being contradictory and changing his mind, particularly on the role of the rulers. This is true, but in our view two elements should be considered here. First of all there is Keynes' argument that when one gets new information, changing one's mind is sometimes the only correct thing to do. Secondly, in the period Roscher so brilliantly describes as *aufgeklärter Absolutismus* or 'enlightened despotism' (Roscher 1868: 77), Justi lived in a period where 'political correctness' could literally be a matter of life and death, rather than the petty idea conveyed by the same concept today. The enlightened ruler – the 'Philosopher-King' in Wolff's terms (Wolff 1750) – was in charge of a developmental dictatorship, and the job of cameralists like Justi was to assist, guide, correct and cajole the rulers to do their job properly. As we have already alluded to, the quiet and uneventful life of Adam Smith as a university professor and customs official contrasts sharply with the turbulent life of Johann Heinrich Gottlob von Justi and the other *Staatsabenteurer*.

Many of Justi's works are repetitive, which is equally true of Christian Wolff's works, and self-plagiarizing. However, we have to keep in mind that Justi lived a tumultuous life in very tumultuous times – including the Seven-Year War when Russian troops even occupied Berlin – and that the sale of books probably was economically very important for Justi every time he changed his operating base. He never engaged in teaching for longer periods, which emphasizes the probable role of books as an important source of income. Justi's change of publishing houses reflects his change of bases, when he moves to Copenhagen his books are also published there. Justi's many similar publications are probably also the result of a cost structure which is very different from today's book publishing: relatively much higher transportation costs, but low capital costs and low labour costs compared to the cost of paper. Added to the problems of war: this all means that small and frequent printing runs made sense. Tribe's comments on this matter are to a surprising degree only self-congratulatory on having unmasked Justi's 'ruthless self-plagiarism', and show no attempt to explain why publishing this way may have made economic sense in times of war when production costs were differently structured (Tribe 1988: 59).

Justi's reputation no doubt rests on his works on economics and the cameralist sciences. His publications on law and politics as well as on ethnography give us very interesting pictures of his time. While Justi's social science predecessors, Leibniz and Christian Wolff, combined first class philosophy with very practical matters, Justi was at his best at the lower levels of abstraction. Georg Heinrich Zincke, Justi's contemporary, published a translation of Xenophon's import book on state management, the *Poroi* (Zincke 1753), and thus reestablished the link between the economics of his age and Ancient Greece, a link that was

very evident with the Italian Renaissance economists. Justi's inclinations were different, less purely intellectual and theoretical. Monadology was an important cosmological building block from Giordano Bruno (1548-1600) to Leibniz (1646-1716), and monads are again in fashion today in computer programming. Justi's book on the subject (Justi 5) was very negative to the concept, and received several rebuttals (Anonymous 1747) (Anonymous 1748). Justi's abstract and philosophical writings were very early in his career, up to 1748, so it looks like he specialized dynamically according to his perceived comparative advantage.

The fight over monadology was not Justi's only fight when he ventured outside the cameral sciences. He was initially on very friendly terms with his stepbrother Christoph Traugott Delius, who also contributed to the *Deutsche Memoires* (Justi 1). Later they came into disagreement over Justi's writings on geology. It is probably fair to say that Justi was a jack of all trades, but master only in the cameral sciences. Establishing the science of economic policy and public administration, as he did, is by no means a trivial contribution to economics, and his inaugural lecture in cameral sciences (his second) at the Vienna *Theresianum* in 1752 (Justi 13) is a masterpiece of translating important principles of economic policy into teachable and practical policy measures.

In the following examples the numbers refer to those of the Reinert & Reinert bibliography of Justi in this volume, where his books are listed chronologically by first printings. The numbers lead to the original title in German and to translations in the bibliography.

- I. **Literary Works.** One example here is the 'Joking and Satirical Writings', published in 1860 in 3 volumes (Justi 38) and Justi 30. Here we may also group Justi's biographical work on his mentor Count von Brühl and his wife (Justi 33, 40 & 57).
- II. **Philosophical Works.** To these belong his works on monadology (Justi 5) and, according to Roscher (Roscher 1868: 52), also the work on the education of children (Justi 8).
- III. **Works in the Natural Sciences.** Justi's publications in this area are definitely part of a normal cameralist agenda: to discover and fully utilize the resources of the nation with a keen eye to the opportunities both for technological change and import substitution. His work on the new dyes from Saxony (Justi 11) reached at least 3 editions and a French translation. His works on mineralogy (Justi 21, 36, 59, 61 & 66) were apparently not all up to standards and item 21 made him 'ridiculous' to the mining profession, according to Roscher. We have not attempted to verify the quality of these works to today's standard.
- IV. **Works on the Progress of Science.** Here is where we find the closest affinity between Justi and the Leibniz/Wolff tradition of human progress through scientific advancement, itself a continuation of the Italian Renaissance tradition. Justi's two inaugural lectures in the *Collegio Theresiano* in Vienna, were published in 1754 (Justi 13). The first part, his 1752 lecture, is a very succinct statement and synopsis of Cameral Science (pp. 1-44, see category IX), the second part, his 1750 lecture, is a speech 'On the inseparable connections between the flowering of the sciences and the happiness of a people, with those means which make a state powerful and happy' (Justi 13, pp. 45-82). This relationship was commonly discussed in cameralism at the time, and recalls the title of a book by Johann Gottfried Herder several years later: 'The influence of a government on the sciences, and the sciences on the government'

(Herder 1781). Here we are at the core of an important difference between cameralism and English economics. English economics focuses on barter and exchange and science only enters English economics with Charles Babbage (Babbage 1830), to the extent that Babbage counts as an economist at all.

- V. **Works on Technology.** To this very important category belong items 51, his two volume work on manufacturing and factories, and 56: *Schauplatz der Künste und Handwerke*. This second item, very voluminous, is a typical publication of the time, found in all European countries, focusing on the practical and theoretical problems of production in all areas. The work is a translation of portions of *Descriptions des arts et métiers* published by the *Académie des Sciences* in Paris. Justi edited the first four of a total of 21 volumes, of which the last appeared in 1805. Continuing Justi's focus on technology, Johann Beckmann – professor of economics in Göttingen – published an important book on technology that reached at least three editions (Beckmann 1787). Beckmann was also the editor of the third and last edition of Justi's work on manufactures and factories (Justi 51). Beckmann's works on technology were published in England as 'A History of Inventions and Discoveries' in three volumes with a total of almost 1.500 pages (Beckmann 1797). Putting technology at the core of German economics is a tradition that starts with Justi, is continued by Beckmann, and lasts through Marx and Schumpeter. Charles Babbage represents also this subject in English economics (1836).
- VI. **Works on Agriculture.** Justi wrote two works focused only on agriculture (Justi 49 & 62). Again this is part of the standard cameralist agenda.
- VII. **Historical Works.** These comprise Justi 9, 40, 46, 58 & 63. According to Roscher 'Without much real scholarship these (historical) works testify to much skillfulness and practical understanding (*Verstand*) for historical matters' (Roscher 1868: 82)
- VIII. **Works on Law and Contemporary Politics.** There are many works in this 'law and economics' category, which is also an integral part of cameralism at the time. Here belong Justi 12, 19, 23, 24, 28, 34, 42 & 46. After his dramatic divorce, Justi writes a two-volume work on marriage law (Justi 23), tying also this issue to the 'happiness of a state'.
- IX. **Works on Ethnology.** As already mentioned Justi's work on the 'so-called barbarian states', China and Peru (Justi 54), which are clearly not barbarian at all in his view, is most interesting in that it is a late example in the Renaissance tradition of ethnology, typified by Giovanni Botero's *Relazioni Universali* (Botero 1622). This pre-ethnocentric tradition celebrates the diversity of the experience of human tradition, enthusiastically emphasizing the achievements of every culture, rather than emphasizing its backwardness compared to Europe.
- X. **Works on Economics and the Cameral Sciences.** These are, of course, the bulk of his works and the works for which Justi is remembered. Justi's inaugural lecture at the *Collegio Theresiano* in Vienna (Justi 13) contains a remarkably succinct and pragmatic résumé of academic cameralism of 44 pages, complete with an outline of the different faculties, plans for what should be taught every semester, and a large number of practical exercises for the students at the Vienna *Ritterakademie*. As with the other cameralists, Justi's writing is sometimes both laborious and repetitive –

Schumpeter comments on ‘a fair ration of ponderous triviality’ – but this work proves that Justi was able to do the opposite. Here (Justi 13: pp. 11-12) he outlines the sub-fields of cameralism: a) One *Collegium* for *Policeywissenschaft*, the science of policy and good organisation of civic life, b) one *Collegium* for the sciences of commerce and manufacturing, c) one devoted to lectures and practical student exercises in cameralism (‘Draft a Law to Attract Foreigners’, ‘Draft a Project for Establishing a School of Anatomy and Surgery without incurring large costs’), d) one *Collegium* for public administration and public finance, *Oeconomie oder Haushaltungskunst*, for the nation and for the cities, and e) additional lectures on mining. This system was later enlarged, and Roscher gives us a list of 6 to 7 professorial chairs, that also includes chemistry, mechanics and construction (Roscher 1868: 83).

Of these categories, only category I can be said to lie outside the normal range of the writing of a cameralist, and – except the natural sciences – even to be outside the realm of the German Historical School. These are the sciences that were necessary in order to promote the well-being of Mankind. At the core of cameralism was Man and His Needs – *der Mensch und seine Bedürfnisse* – and knowledge from all the above categories was necessary in order to promote that end.

4. Justi as the Continuity of the Continental Renaissance Filiation of Economics.

Out of Italy is the title of a work by French historian Fernand Braudel, carrying the subtitle *1450-1650* (Braudel 1989). Indeed the Renaissance inspiration that was to create and form European civilization – be it art, inventions or banking – came *out of Italy*, but with significant links back to Ancient Greece and an injection of creativity from the philosophers of the collapsing Byzantine Empire (Reinert & Daastøl 1997). When the counterreformation later stifled the developments on the Italian peninsula, the torch was carried north by people like Leibniz, Wolff and – we would include – Justi.

The early economic development that grew out of the Renaissance had a very strong urban bias, and the question arose as to why this was so. The causes of ‘The Greatness of Cities’ are the subject of several chapters of Giovanni Botero’s great work (Botero 1590). Italian humanism was also accompanied by *civic humanism*, which created institutions, and in this perspective the greatness of the cities was seen as an example of *virtù*, or virtue. The 1500’s were a period of true European cosmopolitanism, both in university and church life. Typically Giovanni Botero, who was born and lived in Italy’s *Piemonte*, had his two first works published in Krakow in Poland and Würzburg in Germany (Firpo 1960).

Today there are still civic institutions in Florence that are more than 500 years old. At the time of Justi this institution-building, from banking to health care to fire insurance, and the accompanying legislation, was still the task of the economists. Behind their theories and *Praxis* loom the utopias of Francis Bacon and Tommaso Campanella as blueprints for a better world. The programme of the mercantilists and cameralists was to spread the wealth-creating synergies found in the cities to the whole of the national territory, and behind it all – fighting to wake up the lethargic population – Justi and his contemporaries created and aided the ‘Philosopher-King’ (Wolff 1750), creating a system of government Roscher later would call ‘enlightened despotism’ and which we would probably call ‘development dictatorship’. Justi would treat the interest of the king as being identical to the interest of the people.

Antonio Serra (1613) would describe the mechanisms behind this urban bias in early economic development: The synergies originate in increasing returns in manufacturing and in a great degree of division of labour, neither of which is normally found in the countryside. This added theoretic acumen to Botero's description, but as usual practice preceded theory. In England already the first Tudor King, Henry VII, based on the observation of the wealth of the manufacturing cities in Europe, had initiated a policy of targeting and protecting manufacturing industry. This type of 'Schumpeterian Mercantilism' (Reinert 1999) became prevalent all over Europe. In France Barthélemy Laffemas (1597) laid the foundation for 17th Century economic growth in France and everywhere – very much in Werner Sombart's spirit – war, love and luxury gave rise to a manufacturing industry, also in Denmark-Nowray (Nilsen 1943).

The economic policy tools of the time were many, and most of them may be traced back both to the Italian city-states and to Henry VII and the Tudor monarchs. Artisans and manufacturers were encouraged through subsidies, bounties, tax reductions, prizes, free tools and subsidized buildings. Inventors were supported through prizes and, starting in Venice in the 1490's, by patents. The welfare of society was not seen as being kept together by any invisible hand, but by what Justi would call *Staatsklugheit and Staatskunst* – the wisdom and art of state governing. |

A moving factor behind the poverty on the land is, to Justi and his colleagues, the lack of entrepreneurship and innovation: 'Agriculture is carried out in the same way as it was done by the forefathers several hundred years ago. Everything is kept in the same apathetic routine, and no one wishes to try anything new' (Justi 15: Vol. 2: 206). The mercantilist writers and the monarch joined in plotting to get the people out of this lethargy, and in this way got the snowball rolling which to others much later would look like the work of an invisible hand.

Philipp Wilhelm von Hornigk's work *Österreich über alles wann es nur will* (Hornigk 1684), was the state of the art in economic policy at the time Justi started writing on the subject. The book was in print until after Justi's death, the latest edition appearing in 1784. Hornigk's nine principles of economic policy, translated by Monroe (1930), are reproduced below. When reading these rules, we must keep in mind the setting at the time: manufacturers are scarce, but are correctly defined as the starting points of the synergies from which wealth and division of labour spread. We must also recognize that foreign exchange is a scarce commodity, that 'windows of opportunity' for improving practices in production are overwhelmingly many, and that the country is operating very far from any neo-classical 'production-possibility curve'. There are many underemployed hands that can be better employed than they presently are.

These are von Hornigk's principles of economic policy:

First, to inspect the country's soil with the greatest care, and not to leave the agricultural possibilities of a single corner or clod of earth unconsidered. Every useful form of *plant* under the sun should be experimented with, to see whether it is adapted to the country, for the distance or nearness of the sun is not all that counts. Above all, no trouble or expense should be spared to discover gold and silver.

Second, all commodities found in a country, which cannot be used in their natural state, should be worked up within the country; since the payment for *manufacturing* generally

exceeds the value of the raw material by two, three, ten, twenty, and even a hundred fold, and the neglect of this is an abomination to prudent managers.

Third, for carrying out the above two rules, there will be need of people, both for producing and cultivating the raw materials and for working them up. Therefore, attention should be given to the population, that it may be as large as the country can support, this being a well-ordered state's most important concern, but, unfortunately, one that is often neglected. And the people should be turned by all possible means from idleness to remunerative *professions*; instructed and encouraged in all kinds of *inventions*, arts, and trades; and, if necessary, instructors should be brought in from foreign countries for this.

Fourth, gold and silver once in the country, whether from its own mines or obtained by *industry* from foreign countries, are under no circumstances to be taken out for any purpose, so far as possible, or be allowed to be buried in chests or coffers, but must always remain in *circulation*; nor should much be permitted in uses where they are at once *destroyed* and cannot be utilized again. For under these conditions, it will be impossible for a country that has once acquired a considerable supply of cash, especially one that possesses gold and silver mines, ever to sink into poverty; indeed, it is impossible that it should not continually increase in wealthy and property. Therefore,

Fifth, the inhabitants of the country should make every effort to get along with their domestic products, to confine their luxury to these alone, and to do without foreign products as far as possible (except where great need leaves no alternative, or if not need, wide-spread, unavoidable abuse, of which the Indian spices are an example). And so on,

Sixth, in case the said purchases were indispensable because of necessity or *irremediable* abuse, they should be obtained from these foreigners at first hand, so far as possible, and not for gold or silver, but in exchange for other domestic wares.

Seventh, such foreign commodities should in this case be imported in unfinished form, and worked up within the country, thus earning the wages of *manufacturing there*.

Eight, opportunities should be sought night and day for selling the country's superfluous goods to these foreigners in manufactured form, so far as this is necessary, and for gold and silver; and to this end, *consumption*, so to speak, must be sought in the farthest ends of the earth, and developed in every possible way.

Ninth, except for important considerations, no importation should be allowed under any circumstances of commodities of which there is a sufficient supply of suitable quality at home; and in this matter neither sympathy nor compassion should be shown foreigners, be they friends, kinsfolk, *allies*, or enemies. For all friendship ceases, when it involves my own weakness and ruin. And this holds good, even if the domestic commodities are of poorer quality, or even higher priced. For it would be better to pay for an article two dollars which remain in the country than only one which goes out, however strange this may seem to the ill-informed.

5. Economics at the Time of Justi: ‘Laissez-faire with the Nonsense Left out’.

Joseph Alois Schumpeter wrote what is certainly the most encyclopedic of all histories of economic thought (Schumpeter 1954). Schumpeter’s analysis differs from most other such works in his lack of enthusiasm for the economics of Adam Smith. Schumpeter argues, quite correctly in our view, that Adam Smith’s *Wealth of Nations* – the most famous economics book ever – ‘does not contain a single *analytic* idea, principle, or method that was entirely new in 1776’ (Schumpeter 1954:184).

Even the division of labour, Smith’s engine of growth, can be traced back to Xenophon’s *Poroi*, and William Petty, who died 99 years before the publication of *The Wealth of Nations*, describes the division of labour in a clock factory. The most remarkable, and at the same time most unknown precedent, however, is that of Ernst Ludwig Carl, a German economist in French service, who wrote a three volume work on economics more than 50 years before Adam Smith, using the pin factory as his example for describing the principle of the division of labour, the same example that made Adam Smith famous and is assumed to be his original idea (Carl 1722-23).

Schumpeter heads his section on Justi in the *History of Economic Analysis* with the title ‘Justi: The Welfare State’ (Schumpeter 1954: 170). Since Schumpeter was not particularly enthusiastic about the welfare state, his later praise of Justi is all the more significant. In the comment on Justi below, Schumpeter succinctly states a typical pre-Smithian attitude to technological change and economic policy. Justi was the first to establish economic policy and public administration as a separate science – as **Policy-Wissenschaft** – the science of policy. Previously economic policy had belonged in a trinity of politics, ethics, and economics. Schumpeter’s description of Justi’s economics gives us a flair of the Pre-Smithian mainstream, and indicates how Justi and his contemporaries integrated technology into their analysis:

’He (Justi) saw the practical argument for laissez-faire not less clearly than did A. Smith, and his bureaucracy, while guiding and helping when necessary, was always ready to efface itself when no guidance or help seemed needed. (Schumpeter’s footnote here: ‘This was not merely a dream. It will be pointed out below that the bureaucracy in the typical German principality actually tried to behave like this’) Only he saw much more clearly than did the latter all the obstacles that stood in the way of its working according to design. Also, he was much more concerned than A. Smith with the practical problems of government action in the short-run vicissitudes of his time and country, and with particular difficulties in which private initiative fails or would have failed under the conditions of German industry of his time. His laissez-faire was a laissez-faire plus watchfulness, his private-enterprise economy a machine that was logically automated but exposed to breakdowns and hitches which his government was ready to mend. For instance, he accepted as a matter of course that the introduction of labour-saving machinery would cause unemployment: but this was no argument against the mechanization of production because, also as a matter of course, *his* government would find equally good employment for the unemployed. This, however, is not inconsistency, but sense. And to us who are apt to agree with him much more than we do with A. Smith, his (Justi’s) vision of economic policy

might look like **laissez-faire with the nonsense left out.**' (Schumpeter 1954: 172, emphasis added)

Schumpeter's comparison of Justi with Adam Smith confirms that Smith did not represent the beginning of reason in economics, and, as the 19th Century 'mainstream' both in the US and in Germany was eager to point out, in some practical matters he represented retrogression. In the next section – section 6 – we shall discuss the economic factors that were recognised as being most important by Justi and his contemporaries, but were nevertheless subsequently left out of economics as this science was redefined by Adam Smith and David Ricardo.

German economic understanding had advanced enormously during the 17th Century, from the old *Hausvaterliteratur* and Jacob Bornitz' rather simplistic compendium of economics and political science (Bornitz 1608) to Johann Joachim Becher's (Becher 1668) and his father-in-law Hornigk's works (Hornigk 1684). The human, material and economic disasters of the Thirty Years' War (1618-48) (where also Bornitz suffered from the violence of the soldiers and lost all his books) ignited a public will to civilize society, and Leibniz and Christian Wolff were key persons in this quest for a more human and civilized society. Becher also makes this goal explicit in the title of his 1668 book, to create a true *Societatem Civilem*. It is on this background, a clear parallel to the Italian Renaissance project – and written in the economic tradition started by Giovanni Botero – that the growth of cameralist literature must be seen. We must keep in mind that in 1683, only one year before Hornigk published his *Österreich über alles, wenn sie nur will*, Vienna had been besieged by the Turks. Hornigk's work was to remain in print for 100 years, reaching a total of 16 editions.

In addition to the strong advances of the latter part of the 17th Century, the 18th Century brought several new elements into German cameralism, and to European economic understanding in general. We shall single out three such significant elements: The Mandevillean Revolution, the understanding of synergies between industry and agriculture, and the role of science in promoting welfare.

The writings of Bernard Mandeville came as a shock to early 18th Century Europe. His book *The Fable of the Bees; or Private Vices, Publick Benefits* (Mandeville 1724) – of which the first volume was published in 1714 – opened up for individual self-interest as a main engine of growth inside an economic system of laissez-faire. At the time Mandeville was accused of heresy, being a 'zealot of infidelity', of 'subverting order and discipline in the Church' and 'of recommending luxury, avarice, pride and all kind of vices as being necessary to public welfare' (Mandeville 1724: 383-385). Nevertheless, as the 18th Century progressed, Mandeville's basic message of the importance of self-interest came to be recognized. The message is simplified by the example provided by Adam Smith: It is not through the kindness of the baker that we get our daily bread, it is because he needs to make money.

The effect of Bernard Mandeville's *The Fable of the Bees* was like that of a torch to a pile of dry wood. Mandeville's claims that 'private vices could become public virtues' – indeed the whole basis for Adam Smith and today's mainstream – went totally against the previous idea of a society constructed on virtue, on the *virtù* of the Renaissance civic humanism. A German translation of Mandeville's work, only the second part, did not appear until 1761. But already in 1757, in Copenhagen, Erik Pontoppidan, the editor of *Danmark og Norges Oeconomiske Magazin*, made the following statement about Mandeville's theory:

'I know how an English author of the work *The Fable of the Bees* can argue for lasciviousness and luxury: that it creates labour for many hands. This can apply to policy when foreigners buy more of the work than we do ourselves, when the raw materials are our own, and when the hands of our labourers are more than those who can be employed at the plough, at the flail⁴, and at the oars. I also know what has been replied to this writer, with good reason, that if his suggestions had been well founded, it would follow that a group of arsonists, to whom it occurred to set fire to all four corners of London, ought to be seen as the best of patriots, because they, more than anyone else, would do much for the trade and employment of many thousands of masons, carpenters and other artisans in the reconstruction of the town.' (*Danmark og Norges Oeconomiske Magazin*, Preface to Vol. 1, 1757).

In the same volume Pontoppidan comments on Justi's activities in Copenhagen, and the quote above is typical of the pragmatic response of Justi and the idealist cameralists in general. Luxury is accepted as long as it adds value to local raw materials and/or employs idle hands, and as long as it does not worsen the balance of payment. We must keep in mind that most nations at the time were far from the production-possibility frontier, had much underemployment, and serious balance of payment problems.

Count Pietro Verri, of Milan, whose main work was translated into German in 1774 (Verri 1774), condenses Mandeville's thesis into one sentence that elegantly meets Schumpeter's criterion of 'laissez-fair with the nonsense left out'. This is clearly also Justi's opinion:

'Because the private interest of each individual, *when it coincides with the public interests*, is always the safest guarantor of public happiness.' (Verri 1771: 42, emphasis added).

Any greed and self-interest is obviously not compatible with public interest. George Soros has shown us that it may be as easy to make money ruining a country as by building it up, but as long as private interests coincide with public interest, which they tend to do when money is made in production rather than in finance, the power and importance of private interest is very strong. This goes to show that the continental European economics profession had accepted Mandeville's basic message before Adam Smith, who is the one who tends to get the credit for this.

A second important 18th Century 'invention', originally attributable to Leibniz, was the understanding of the synergies (linkages) between manufacturing and agriculture. Based on the late 16th Century policies of Barthélemy de Laffemas (Laffemas 1597), 17th Century Colbertism had strongly favoured manufacturing, in practice at the expense of agriculture. Physiocracy was the 'scientific' reaction to this by the French landowning class, making the claim that agriculture was the only productive science, since in the end Man's living was based on eating the products of agriculture. The German attitude towards physiocracy is one of strong rejection, as is evident from the title of Pfeiffer's book *Der Anti-Physiocrat* (Pfeiffer 1780). Here the German economists are in line with their Italian counterparts, headed by Abbé Galliani. The only exception here is found in the Duchy of Baden where the Margrave himself was an ardent physiocrat and which is probably the only state anywhere where physiocracy was tried out in actual policies.

⁴ Instrument used for threshing grain.

The 18th Century provided a solution to the conflict between agriculture and industry, but already in Hornick's nine-point scheme we notice that the importance of agriculture is well covered in phase one. Since Germany had not suffered from the excesses of Colbertism, physiocracy found no fertile ground there. Yet, the message of the mutual dependency of the two main economic activities was a welcome one. Bisgaard rather poetically describes how this idea was received in Denmark:

'....(the) teachings about the mutual dependence of agriculture and manufacturing, or, if you will, their solidarity, became generally accepted. Agriculture was, after all, our favorite child, and manufacturing our *enfant terrible*. It was only natural that a theory which told us that their welfare was so interconnected, so intimately interwoven, would find so much resonance here. It was a most timely word' (Bisgaard 1902: 28)

The same idea is clearly stated also by David Hume, who – in his *History of England* – claims that 'the best way to promote agriculture is to promote industry' (Hume 1767, Vol. 3: 65). This idea disappeared from classical economics with Adam Smith, but later formed the basis for the industrialisation ideology of the United States: 'The American System of manufactures'. Here Mathew and Henry Carey, father and son, stressed the message of the harmony of interest between agriculture and manufacturing from 1820 until well after 1850. In the early 1820's Mathew Carey managed to win the farmers of the United States to the cause of industrial protection and 'The American System of Manufactures' with a book title that reads like an 18th Century German cameralist textbook: *Essays on Political Economy; or, the most certain Means of promoting the Wealth, Power, Resources and Happiness of Nations. Applied Particularly to the United States* (Carey 1822).

The third new element was the role of science, the project led by Leibniz and Christian Wolff, which is described more in detail in Reinert & Daastøl (1997). In all these three key areas, Justi not only integrated the new ideas into the existing theoretical structure, but also systematized the whole theoretical edifice.

We would argue that by the 1760's and 70's mainstream European economics – exemplified by Johann Gottlob von Justi in Germany, Pietro Verri in Italy and James Steuart in England – had thoroughly understood the role of private interests and the benefits of the self-regulatory elements of a market economy, while at the same time they saw the limits to and possible break-down of a system of self-regulation. This period combined the new Mandevillian insights with the beneficiary elements of previous economic doctrines – of the activist-idealistic economic policies that had brought Europe out of the Middle Ages. To the 1750's mainstream, the beneficial forces of laissez-faire were there to utilise in public policy, but not all private profit-making was necessarily beneficial to the nation. In the economics of the 1750's, self-interest was there as a main force, but economics was not yet a *Harmonielehre* (Robbins 1952), a system where natural harmony is already built into the core assumptions of the theory. The 1750's was –as Schumpeter comments on Justi – 'laissez-faire with the nonsense left out'. Cameralism at this point combined the best of the Renaissance, idealism and virtù, with the best of the new teachings: clearly recognizing the key role of both private interests and self-regulatory markets as long as it was in line with public interest.

6. What Justi knew, but Adam Smith and David Ricardo later left out of Economics.

Adam Smith is generally hailed as the father of modern economics, but when Smith redefined economics he left out many of the fields of knowledge that were previously considered part and parcel of the science, many of which we are again attempting to put back in today. Among these fields are some that formed an integral part of Justi's economics: geography, history, institutions, learning, technology, and law and economics: in effect the whole society in which economics is embedded. Adam Smith also left out the synergies and linkages in an economic system. On the macro level we lost the dynamic systemic effects that today is called a National Innovation System⁵ (Lundvall 1992, Nelson 1993), which clearly underlie the whole body of Justi's writings on economics and the *Staatswissenschaften*, and on a less aggregate level, among other things we lost the important practical insight that agriculture is promoted and fomented if and when manufacturing is introduced in a nation.

At the time of Justi these important synergies between agriculture and manufacturing were well known, but they disappear with Adam Smith, whose *de facto* recommendation it is that other nations specialize in producing raw materials while England specializes in manufacturing. Justi's contemporaries would have claimed that only in an industrialized nation will agriculture be efficient. Justi's economics thus contains the elements of a wider and production-based – rather than barter-based – economics tradition which we have termed The Other Canon (www.othercanon.org).

In line with the Schumpeter quote in the previous section where Justi's economics is described as 'laissez-faire with the nonsense left out', we shall go through some aspects of Justi's economics and argue that many points in this experience-based economics indeed make sense, although they may not intuitively do so for someone from today's abstract and context-free mainstream economics. There are indeed several aspects of economics where Adam Smith does not represent the beginning of the science, but rather the narrowing in of a vast field of study. In the following we shall discuss some of the things Smith and his successors left out.

Geography.

An important casualty when pre-Smithian economics was converted to catallactics – essentially a science of barter and exchange – was geography and the importance of distance. When Paul Krugman recently re-discovered economic geography, he argued that both in international trade theory and in spatial economics 'there was a set of core ideas that make considerable sense in light of recent economic analysis, but that were unacceptable to mainstream economics because they could not at that time be modeled' (Krugman 1995: 37). We would argue that this applies to most of the academic fields we list in this section; these are things which make practical sense, but which cannot be modeled by mainstream economics which, paraphrasing Krugman, has advanced along the path of least mathematical resistance rather than according to demand or to perceived usefulness.

⁵ This term originates with Christopher Freeman.

When rediscovering spatial economics, Krugman's main hero is German economist Heinrich von Thünen. In Justi's work on cities (item 50, Vol. 3 pp. 449 and following), Justi treats economic geography using concentric circles from the center to the periphery, the main tool used by von Thünen. Roscher recognizes Justi as being the inventor of von Thünen's concentric circles (Roscher 1868: 97). Geography had been important in economics since the times of Giovanni Botero (Botero 1590 & 1622) and Antonio Serra (Serra 1613), but Justi introduced an important tool.

International Trade Theory and Uneven Economic Development.

Krugman also here, without being aware of it, rediscovered Justi's theories. An extremely important theoretical insight may be reached by coupling the Justi/van Thünen spatial theory with a trade theory with increasing returns. Increasing returns were, especially in Justi's days, only to be found in the manufacturing sector which was also the urban sector (see also 'Urban Bias' below). Diminishing returns were only to be found in the agricultural sector, which is by definition rural. This key insight of Antonio Serra (1613) is the starting point for his theory of uneven development; why Naples with all its resources stayed so poor, and Venice, without any raw materials which would lead them into diminishing returns, grew rich on manufacturing and long-distance trade.

Paul Krugman had all these elements and essentially reformulated mercantilist trade theory in the 'New Trade Theory' (Krugman 1990), which was also Justi's trade theory. In his work on international trade theory (1990) and economic geography (1995) Krugman was essentially reformulating the core elements of mercantilist theory at the time of Justi. In other words Krugman's 'New Trade Theory' of the 1980's (Krugman 1990) is the trade theory also of Justi and von Thünen. Both Justi and von Thünen understood that the development machine at the core of the concentric circles – the urban increasing return industries (manufacturing) – needed, for a time, both targeting, nurturing and protection. Krugman had all the elements at hand, but the logical consequence of this insight would have been to sacrifice economic equilibrium in order to gain relevance. However, Krugman lacked the political courage to arrive at the same logical consequence that Thünen and Justi drew. Sacrificing equilibrium would have meant sacrificing the Archimedean Point of mainstream economics, and also the device that gives economics a claim to being more 'scientific' than the other social sciences. By introducing a situation where some nations specialize in increasing return activities and others in diminishing return activities – which is the core both of colonialism and of today's Third World poverty problems – equilibrium and the generalized claims of economics would have to be abandoned.

Jagdish Bhagwati today triumphantly declares that Krugman's 'youthful surrender to irrational exuberance' in increasing/diminishing return models (Bhagwati 2002: 22) because 'the invisible hand may be frail, but the visible hand is crippled' (Bhagwati 2002: 31). In other words, faced with the resurrected theories of Justi and his contemporaries, the economics profession of the 1990's collectively decided not to trust governments to do what governments had done as a normal course of affairs continuously, and largely very successfully, from 1485 until the reconstruction of post World War II Europe lasting until the 1960's. It is difficult to see this as anything but pure ideology masked as 'science'. During 500 years of political support for increasing returns industries, it is an irrefutable historical fact that never has a nation taken the step from poverty to wealth without passing through a temporary stage of protecting such increasing return activities. In terms of welfare destruction, the de-industrialisation of parts of the Third World since the 1980's has been

devastating. As Justi would have predicted, this de-industrialisation also frequently reduced the productivity in agriculture. (See Reinert 2003 for a discussion and case study)

The Reason for the Urban Bias of Early Economic Development.

Early in the *Wealth of Nations* Adam Smith asks himself why there is so little division of labour in agriculture (Smith 1776/1976: Book 1, Chapter 1, p.10). If the division of labour is the key to wealth, as Adam Smith claimed, it should have been possible for him to find an explanation for the urban bias of early economic development. However, he does not proceed down that path, but – as the physiocrats – he makes agriculture the preferred economic activity. One of the many contradictions in Adam Smith is how agriculture can be the preferred activity, if a) the division of labour is the key to economic wealth and b) there is very little scope for division of labour in agriculture.

The mechanisms behind this urban bias are first described by Giovanni Botero in 1588 (Botero 1590), in his book *On The Greatness of Cities* which was translated into English already in 1606. Already here the superiority of manufacturing is acknowledged, both in terms of demanding more skill, and therefore higher wages, and in terms of providing much greater windows of opportunity for human skills and imagination. This leads Botero into the study of political science: what are the policies that create this progress (Botero 1590). The best short introduction in English to the subsequent logic which developed into the mercantile system is found in Schmoller (1897/1967).

The real clue to the mystery of the urban bias of economic development comes when Antonio Serra describes the synergies of the city as originating in increasing returns in manufacturing, coupled with the high degree of division of labour which together are both the cause and the effect of the wealth-producing synergies observed (Serra 1613). Indeed Serra suggests an acid test to judge the wealth of a city: by counting the number of different professions present in a city it is possible to rank the city compared to others.

How Economic Activities Differ & The Role of Skills and Human Learning.

Ever since Botero and Serra, and all through the mercantilist and cameralist tradition of continental Europe, there is an intimate connection between the perceived need for an *increase in human knowledge* and the *promotion of manufactures*. This is the great plan of Leibniz and Justi, and the high valuation of human knowledge is clearly also found in Justi. He declares '*dass alle Fähigkeiten der im State lebenden Menschen, ja diese Menschen selbst zum Vermögen des Staates gehören*'; 'All the skills of the people living in a state, even the human beings themselves, count towards the assets of the state' (Justi 50, Vol. I, p.160).

The whole issue of knowledge being of value, and its intimate connection to manufacturing activity, however, comes to an end with Adam Smith. In opposition to the physiocrats, Justi explicitly treats skills and knowledge as part of national wealth. As Friedrich List would later point out, to the physiocrats, a person raising pigs (a *Schweinerzieher*) would count as being productive, whereas somebody teaching human beings, like a university professor (a *Menschenerzieher*), would count as being unproductive as relates to national wealth. Although Smith corrected some of the excesses of physiocracy in this area, in our view the pre-physiocratic and pre-Smithian definition of productive labour remains superior to the later ones.

Perhaps the least convincing part of the *Wealth of Nations* is where Smith attempts to convince his readers that all economic activities are of equal quality as carriers of economic growth. In order to create this proof, he has to make the creation of knowledge into a zero-sum game: ‘the cost of apprenticeship accounts for the wages of manufacturers being higher than those of country labour.’ (Smith 1776/1976: 114). There are therefore no advantages to manufacturing over agriculture, although the earnings in manufacturing ‘may be somewhat greater, it seems evidently, however, to be **no greater than what is sufficient to compensate the superior expense of their education**’ (emphaiss added). In other words, the mercantilist tradition that nations who export the products from professions of higher skills will be wealthier than nations exporting products with low skills is here, really for the first time, strongly refuted. From the point of view of both society and the individual, adding knowledge to labour is, in Smith’s system, clearly a zero-sum game (See Reinert 1999, section 9, for a discussion).

Here we are at another contradiction in Adam Smith. While the importance of knowledge is belittled throughout the *Wealth of Nations* – one of Smith’s points of attack is against the apprentice system instituted by Elizabeth I – in this context, when it comes to convincing the world about the unimportance of manufacturing, the cost of knowledge, ‘the superior expenses of their education’ as Smith says, which is needed to get into manufacturing is so high as to make manufacturing unprofitable for other nations. When it comes to warfare, a similar contradiction appears. In one section of his great book, Adam Smith claims that only a nation with manufacturing capacities will be able to win a war, while in another sections he claims that an attempt by the American Colonies to get into manufacturing will not be to their advantage. No wonder Adam Smith’s *Wealth of Nations* was viewed with healthy scepticism on the continent and in the United States throughout the 19th Century.

Context Matters.

Economic policy must always be adjusted to the prevailing conditions of a state (*...nach der Natur und dem Zustande der Natur des Staates (gerichtet werden)*) The Washington Consensus policies of the 1990’s, where the same economic prescriptions were applied to all non-industrialised nations, would have been a totally foreign proposition to Justi and his contemporaries. This is, indeed, a tradition that is totally foreign to any economist before Adam Smith.

Agriculture & Forestry.

As in Hornick’s principles, the agricultural sector is of prime importance, but this sector will not flourish without the manufacturing sector. Both the policy of attracting as many inhabitants as possible, and a fear of food shortages meant to Justi that all available land had to be cultivated. Here Germany and Austria should learn from England, they should start an agricultural extension system (with *Oeconomie-Inspectoren*) in order to facilitate innovation and new practices with the farmers. When it comes to forestry, Justi has a theory parallel to that of Richard Cobden when he ardently supported free trade in corn in England. To Justi the high price of firewood increases the cost of labour subsistence, and therefore hurts trade and exports (Justi 50, Vol. I: 441). This is a complete and perfect parallel to Cobden’s argument as to why England should introduce free trade in corn (Reinert 1998).

The Size of the Population & Population Density.

At one point Justi claims that ‘if one would want to reduce the main aim of the real cameralist, of which he would have to consider with all regulations and institutions, into one word, one would have to scream Population!: *‘wenn man das Hauptaugenmerk des echten Cameralisten, worauf er bei allen Maßregeln und Anstalten zu sehen hat, in ein Wort fassen wollte, so muss man durchaus: Bevölkerung! ausrufen’*. (Justi 50, Vol. III: 379).

This reflects two different aspects. First the aim of all cameralist activity was directed towards Man(kind) and his needs, *der Mensch und seine Bedürfnisse*. In this sense, cameralism was an anthropocentric science. The contrast to today’s standard economics is considerable. In today’s theory Mankind is reduced to a factor of production, whose rewards and standard of living are completely exogenous and carry no weight.

Secondly the size of the population was important to the cameralists and the mercantilists (see Stangeland 1904/1966 for an overview). Again we are tempted to say with Schumpeter, ‘this is not inconsistency, but sense.’ If wealth-creation is essentially an urban phenomenon, due to the fact that increasing returns at the time was only found in manufacturing, and that the division of labour is dependent on the size of the market (Adam Smith kept this insight), then it means that there are increasing returns to the size of the city itself. This argument is also found in Xenophon’s *Poroi*, which was reintroduced in Justi’s Germany with Zincke’s translation and comments (Zincke 1753). In this system, the increasing returns to larger markets make an increasing number of human beings in a state part of the virtuous circle of growth. It is only with Robert Malthus and his friend David Ricardo (Ricardo 1817), with a minimal understanding of technical change and void of increasing returns, that economics becomes a ‘dismal science’ (as Carlisle called it) when additional human beings become a burden instead of an asset. (See Stangeland (1904) for a review of population theories before Malthus)

The Limitations to the Power of the Nobility:

This is a common element in the modernization of Europe since the Reign of Henry VII in England (1485), and the start of the ‘Tudor Plan’ for the development of England. True to this tradition Justi wishes to get rid of hereditary nobility in favour of a personal nobility (Justi 29); an important step in the direction away from the rule of aristocracy towards the rule of meritocracy. The experiences of Spain in the preceding centuries had shown the disastrous results of a virtually tax-exempt and idle nobility, with its economic resources tied to backward activities like sheep-rearing rather than to manufacturing. Justi’s work on transforming an outdated and parasitic ‘war nobility’ to a ‘commercial nobility’ is evident both in the translation and elaboration on the work on this matter (Justi 19) and it permeates the whole structure of his teaching in Vienna (Justi 13), where the nobility was largely to be his students.

Inventions, Innovations and Technological Change.

Justi is very much aware of the importance of inventions, but he is of the opinion that inventions should be rewarded by the State rather than through patent rights (Roscher 1868: 99). This is interesting, because Adam Smith’s (very valid) argument at the time against patents was that instead of rewarding inventions, patents for trivial things (like the production

of sweets), were sold by the king in order to raise money. In this area Justi solves Adam Smith's problem before Smith himself points to the problem.

Justi attaches much importance to the use of machinery (Justi 51), which is totally peripheral to Smith. On the question of 'technological unemployment', people losing their job as a result of mechanisation (not at all treated by Adam Smith), Justi is of the same opinion as James Steuart (Stueart 1767): the problem is important if the change is sudden, but is only serious if there is no other work at all to be found, which is not likely to be the case.

Colonies.

To Justi the only useful colonies are those that are only engaged in agriculture. As other economists before Smith and Ricardo he is aware of the fact that such arrangements are not in the interests of the colonies themselves. Knowing that manufacturing is the key to wealth, this is an obvious part of the logic of the mercantilist system, and Justi realises that such trading arrangements 'always will be in danger as soon as the foreign people starts getting wiser' (Roscher 1868: 91). Adam Smith and David Ricardo represent a real water-shed in economics, in that it is only with their barter-based, rather than production-based, economic theories that colonialism becomes morally defensible. Colonialism is only defensible within an economic theory where national wealth grows independently of what the nation produces.

'Dutch Disease', or, How Too Much Unearned Wealth Destroys an Economy.

If a nation's treasure is too big, this will make the nation dirt poor, says Justi: '*Durch einen zu großen Staatsschatz würde das Land blutarm werden*' (Justi 50, Vol. II: 83). This is no doubt an insight gained from the 16th Century de-industrialisation of Spain through the inflow of treasure from Mexico and Peru. Justi's statement here is, in our view, most significant, in that it shows – to an extent not at all understood by mainstream economics – that Justi and his contemporaries were *not* mainly interested in treasure, as modern histories of economic thought still claim, virtually unanimously. Quite the contrary: Justi was aware of the fact that too much treasure would be harmful to the real wealth of a nation, i.e. to *the productive system and apparatus* which is at the core of any national wealth-producing system.

Without the experience of the de-industrialisation and impoverishment of Spain from the 16th and 17th Century, Justi's conclusion here does not correspond to intuitive common sense. It may clearly be seen as what is today called Dutch Disease, that the presence of riches crowds out other economic activities. A similar phenomenon is known in Australia as the 'Gregory effect', raw material wealth causes the currency to revalue and *produces de-industrialisation*. Justi sternly warns against the national Treasury being too wealthy in relationship to the money in circulation in the country, and he recommends using any surplus money for *außerordentliche Bauten*. In other words, superfluous treasure should be invested in public works.

This paradox, that monetary wealth (treasure wealth) crowds out real wealth (wealth from the productive system), was expressed by a Spanish economist at the time when this effect had strongly been felt in Spain (Cellorigo 1600):

'The cause of the ruin of Spain is that the wealth has been and still is riding upon the wind in the form of papers and contracts, *censos* and bills of exchange, money and silver and gold, instead of in goods that fructify and by virtue of their greater worth

attract to themselves riches from abroad, sustaining our people at home. We see, then, that the reason why there is no money, gold, or silver in Spain is because there is too much, and Spain is poor because she is rich. The two things are really contradictory, but though they cannot fittingly be put into a single proposition, yet we must hold both to be true in our single Kingdom of Spain’.

The belief that mercantilists were only interested in gold and treasure is one of the most destructive legacies left by Adam Smith. Still today this myth obliterates the extraordinary efforts, theoretical and practical, which were necessary in order to create the industrial civilisation, indeed it represents a historically important and very successful attempt by Adam Smith to strip the economists before him of any legitimacy. Indeed this myth, combined with Smith’s ‘proof’ that all economic activities are qualitatively alike as carriers of economic growth (see Reinert 1999), are probably the most serious obstacle limiting the progress of poor Third World nations.

As Foucault says: ‘The usual attitude towards what it has been agreed to call ‘mercantilism’ is double unjust: either it is denounced for comprising a notion it continually criticised (the intrinsic value of metal as the principle of wealth), or it is revealed as a series of immediate contradictions: it is accused of defining money in its pure function as a sign while insisting upon its accumulation as a commodity; of recognising the importance of quantitative fluctuations in specie, while misunderstanding their action upon prices; of being protectionist while basing its mechanism for the increase of wealth upon exchange. In fact, these contradictions or hesitations exist only if one confronts mercantilism with a dilemma that could have no meaning for it: that of money as a commodity or as a sign’ (Foucault 2002: 192). Too long mercantilism and cameralism have been judged by people who have rarely read a single such text. Fortunately new research is attempting to get the record straight: emphasising that cameralism and mercantilism were systems attempting at maximising national wealth through production (Perrotta 1988 & 1991; Magnusson 1991)

7. Conclusion: Lost Relevance that Could be Regained.

Johann Heinrich Gottlob von Justi belongs to an under-researched and highly relevant school of economics that laid the necessary foundations for the economic growth of Europe. Once the productivity explosions of the first industrial revolution had started snowballing across Europe, the painstaking groundwork of these economists – which had taken between two and three hundred years – was expelled from what became economic theory. The welfare, the institutions, the innovations, the popular attitudes towards progress, and the mechanisms of ‘good governance’ that these early economists had created, started to be taken for granted, as spontaneous products of an invisible hand. With Adam Smith economics became *catallactics*: the science of exchange, of supply and demand of something that has already been invented and produced outside what became the narrowly defined sphere of economics. After A. Smith converted production and trade into one category, by reducing everything to ‘labour time’ void of any skills or other qualities, economics became, as 19th Century German economists would complain, a science of barter consisting of *qualitätslose Größen*, quantities void of any qualities.

With Adam Smith the tools used in the painstaking process of creating the productive civilisation of Europe, slowly built brick by brick and institution by institution, were cancelled both from the toolbox and from the collective memory of the economics profession. As one

economist put it in 1840: ‘The delusion that security of life and property, the productivity of labor, and the consequent possibility of acquisition and enjoyment, and even the elevation of the spiritual and the ennobling of the moral nature - that these goods came to Man in the gift of gratuities, is itself a proof of the advanced stage of culture which the greater part of Europe at present occupies. 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.’ (Johann Gottfried Hoffmann, quoted in Cohn 1895: 60). In this process economists like Justi were the builders of the institutional foundation that made the Industrial Revolution possible. This revolution was in full swing as Adam Smith wrote his *Wealth of Nations*, but there is no indication that he was aware of it.

One generation after Hoffman, Gustav Cohn, another German economist, picks up his argument and continues: ‘In point of fact, how significant was the involuntary testimony which the eighteenth Century, with its repudiation of the historic State and its yearning after the primordial state of nature, bore to the blessings of the inherited culture which it ungratefully enjoyed.’ (Cohn 1895: 60-61) This description – written more than 100 years ago – also fits the *Zeitgeist* of today, and it constitutes a serious impediment for our understanding of the continued underdevelopment of large parts of the Third World. It is therefore very timely that in a recent work, *The Spirit of Capitalism. Nationalism and Economic Growth*, Liah Greenfeld of Boston University (Greenfeld 2001) again raises these issues and does a commendable job in tracing these by now forgotten roots of economic civilisation.

During the 19th Century, many economists were keen to distance themselves from the perceived errors of the past, in practice distancing themselves from policies which were necessary for catching up, but superfluous once the industrial revolution had taken firm roots in a country. This came to colour their opinions of the economists of the preceding century, the 1700’s. In judging pre-Smithian economics we quite naturally gravitate towards the authority of economists who lived closer to their times. In doing this, however, we open up for serious mistakes. For example, our traditional main sources of information about the works of the Spanish mercantilists, Manuel Colmeiro (1818-1894), converted to liberalism and free trade during his career, and this very much colours his later mainly negative comments on the works of the Spanish mercantilists (Colmeiro 1880/1979). 20th Century authors, who have studied Spanish mercantilism, have come to very different conclusion. Earl Hamilton, the eminent US economic historian and historian of Spanish economic thought, draws very positive conclusions on the role of the Spanish mercantilist writers, as opposed to Spanish economic policy: ‘History records few instances of either such able diagnosis of fatal social ills by any group of social philosophers or of such utter disregard by statesmen of sound advice’ (Hamilton 1932: 237).

We suggest Wilhelm Roscher’s view of Justi should be seen in a similar light. Roscher was probably the member of the German historical school who positioned himself closest to Ricardo and the English tradition, although he also contributed to *The Other Canon* by placing increasing returns again on the theoretical map. It is true when Peukert (in this volume) is of the opinion that Wilhelm Roscher ‘downgrades’ Justi’s work. His article on Justi (Roscher 1868), which is largely repeated in his book on the history of economic thought in Germany (Roscher 1874: 444-465), Roscher starts out with a very negative description of Justi’s character (*der eitle Mann, ohne Selbstbeherrschung, ... würdeloser Überlaufer*) and his theories partly full of contradictions, and partly plain banalities. As the article advances, the positive comments increase and the negative ones diminish. In the end Roscher’s articles on

Justi reminds one of much of the academic economic writing in the former German Democratic Republic: the interesting and good stuff only comes after an initial mandatory lip service to the ruling ideology. This was particularly true of the communist writings in economic history.

With A. Smith, as Schumpeter consistently calls him, economics lost many of the key features that we are again trying to put back today: institutions, technology, innovations and processes of human learning being key elements. We tend to forget that these elements – and many more, most of them relevant – were part of economics at the time of Johann Heinrich Gottlob von Justi. After the failure of globalisation to deliver economic growth in large parts of the Third World, the focus of the Washington Institutions of institutional development is an unrecognised attempt to put back some pre-Smithian economics. What they fail to implement, however, is the *activity-specific* elements in Justi and his contemporaries: economic development is a process that has never ever taken root in the absence of increasing return activities, normally manufacturing. Schumpeter indeed discusses Justi's work under the heading of 'Justi: The Welfare State' (Schumpeter 1954: 179)

Indeed, we would claim that in terms of relevance for qualitatively understanding the multiple facets of the process of economic development when starting from scratch, the period between 1750 and 1775 was probably the highest point ever reached in the economic science. James Stueart's *Principles of Political Economy* (1767), highly influenced by German cameralism, is a manual for nations catching up. Adam Smith's becomes the manual for how hegemony wishes the world was working: the nations which monopolised industrial knowledge and increasing return industries, pretending these factors do not matter. When the same nations were catching up, they used a very different ideology. England clearly did this. The best example of such an ideological switch, however, is the extremely strong resistance to the theories of Adam Smith and David Ricardo in 19th Century United States – when the US followed a set of policies inherited from Justi and his colleagues – and the subsequent change to neoclassical theory when the United States had reached world industrial hegemony.

Interestingly Holland, the world hegemone before England, also had its own 'A. Smith' more than 100 years earlier: Jean de Wit, alias Pieter de la Court (de la Court 1662). As already Friedrich List pointed out, there is a strong historical tendency for nations that profit from strong oligopolies in manufacturing and monopolies in trade to produce theories, for export, in which *trade rather than production*, and *perfect competition rather than dynamic quasi-monopolies* are the true causes of wealth. The important elements that Adam Smith left out of economics – those which are necessary to create national innovation systems – are central to the economics of Johann Heinrich Gottlob von Justi, and, like Steuart and List, he should be required reading in the many small and medium sized nations who are presently only falling further behind in the process of globalisation.

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