

## 1. Introduction: High Tech or Human Capital?

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Is a trend visible towards sterile economics? Is the Queen of the Social Sciences becoming a science that can be characterized by the triad 'pure, abstract and essentially aesthetic'? Are we moving towards a new style of economic analysis? The superfluous use of mathematics, the relative importance of theory *vis-à-vis* empiricism, education, and training of economic doctorates have been critically discussed in leading journals such as the *Journal of Economic Literature*, the *Journal of Economic Perspectives* and the *European Economic Review* and in books such as *The Making of an Economist* (Klamer and Colander 1990).

American economics has been contrasted with European economics which is said to be more policy oriented and to pay more attention to institutional and historic aspects of the economy (Portes 1987, Kolm 1988; in 1995 a special issue of *Kyklos* was devoted to this topic). The argument is that European economists play an important role in the policy process, whereas their American colleagues are confined to academia.

A discussion that is cast in terms of American economics versus European economics runs the risk of making a caricature of much of the economic analysis that is taking place on both sides of the Atlantic. Indeed, the utility of geographically determined archetypes or role models is questionable. It is probably more appropriate to discuss the future development of economics in terms of 'high tech' and 'human capital' economics. With 'high tech' economics we mean a sterile, formalistic non-contextual approach. The 'human capital' approach involves high quality applied research that is transparently linked to the 'real world'.

Many economists have expressed concern with the present situation and we are now all quite familiar with discussions about the merits of the two archetypes of economics. Economics is not the

home of a happy family: theory and practice are divorced (or at least living apart). Is the breach permanent or can the spouses be reconciled? And why did the breach occur in the first place?

### 1.1 Academics and Policy Advisers

Central to any analysis of the relationship between policy and science is the exchange of ideas between the academic (the scientist, the tool-maker, the discoverer) and the policy-maker (the decision-maker, the tool-user, the practitioner). On the one hand, this is a symbiotic relationship because well-trained economists and well-founded economic research are important inputs in the process that transforms economic knowledge (together with other scientific achievements and political constraints) into policy. Moreover, academic economists and economists in government fight essentially the same battles against economic twaddle (that is, lay beliefs, opinions and perceptions that ignore scientifically established empirical regularities and relevant theoretical insights). Henderson (1986) attacking 'do-it-yourself economics', van Sinderen (1992) confronting 'pre-economic thinking' and Krugman (1996) castigating 'pop internationalism' are all part of the same mission, namely to drive out prejudice, superstition and metaphysics from the policy debate. Academic economists and policy-makers are thus natural allies to some extent.

However, the symbiosis is far from perfect. There is a wide gap between the focus, emphasis and tone of the academic side of our profession and that in the trenches (Harberger, 1993). Indeed, frictions exist between these different breeds of *homo economicus*. These frictions constitute the *leitmotiv* of this book. It should be clear by now that we will not be concerned with situations in which academic economists reveal faulty reasoning or ideology on the side of the policy-makers or where policy-makers point out the irrelevance (both empirically and politically) of specific theories and theorems. In those cases policy-makers and academics communicate and the market for economic ideas functions well.

In contrast, we are interested in situations where communication is lacking, where academics are disinterested and policy-makers ignorant. In those cases frictions between policy-makers and academic economists develop into barriers to exchange (of ideas, of

policy questions, of facts, of visions). Let us consider some factors that may explain these frictions in a bit more detail.

*The different roles of economists*

Frictions between policy-makers and academics partly originate in confusion about the different roles that economists play in society. Scientists have a different function than the policy-makers and the two roles require different skills. The policy-maker typically cannot make a useful analysis by considering the implications for a narrow field only. To function effectively the policy maker has to efficiently synthesize and integrate existing knowledge. In order to put forward policy advice that is both rational and relevant, one has to be a philosopher, one has to be 'learned'. Relevance, rather than logic, ultimately drives the argument.

The expected benefits of the division of labour are an important incentive to specialize in the economic profession (just as in ordinary life). According to Stigler (1963, pp. 10-11), specialization is the royal road to social and scientific recognition. Indeed, the complexity of economic issues may have encouraged 'high tech economics'. Incidentally, the resulting pattern of specialization does not assess individual or national capabilities. People specialize according to their *comparative* advantage. Hence economists may specialize in a subfield in which they have an absolute disadvantage. Alternatively, an economist may choose not to specialize in a field in which he or she has an absolute advantage. Consequently, some policy-makers are excellent theorists while some academic economists provide excellent policy advice.

Galbraith (1972) offers a more sociological explanation for the lack of communication between practitioners and academics. Building on the sociology of tribal groups, Galbraith argues that there is a natural desire to delineate insiders and outsiders. The prestige system of economics assigns the lowest position to economists that are dealing with practical issues while, according to Galbraith, at higher levels in the pecking order economics divorces itself fully from practical questions and from the field of other scholarship.

This puts [the man who deals with everyday policy] in communication with the world at large. As such he is a threat to the sharp delineation which separates the tribal group from the rest of society and thus to the prestige

system of the profession. Moreover, his achievements are rated not by his professional peers but by outsiders. This causes difficulty in fitting him into the professional hierarchy and argues strongly for leaving him at the bottom. (Galbraith 1972, pp. 40-42)

Intensive specialization is thus necessary if one wants to be a successful academic economist (but it is obviously not sufficient). An economic practitioner, however, has to be a generalist. Policy problems of modern society are so complex and academic specialization has gone so far that a team of specialists would probably become unmanageably large and at some point a generalist is needed. Who ensures that the team of specialists is well-composed? Who manages the team? Who explains the results to the decision makers (especially if they are not trained in economics)?

*The lost art of economics*

Somewhere along the tracks we have lost the art of economics out of sight. Colander (1992) uses Keynes's (1891) three-part distinction between positive economics, normative economics and the art of economics to argue that positive economics is not the appropriate methodology for applied economics (that in Keynes's definition comprises policy advice). In addition to the traditional textbook exposition that makes the positive-normative distinction, it is useful to distinguish the art of economics as a separate methodological category:

- a positive science (a body of systematized knowledge concerning what is);
- a normative science (a body of systematized knowledge discussing criteria what ought to be); and
- an art (a system of rules for the attainment of a given end; its object is the formulation of precepts).

According to Keynes, confusion between these three methodological categories is common and the source of many mischievous errors. Colander (1992) argues that the advance of economic science is hindered by the binary positive-normative distinction that characterizes economic methodology since Friedman's (1953) 'Methodology of Positive Economics': 'Positive economics suffers

from the lack of an art of economics because, if a separate art is not delineated, positive economic inquiry faces pressures to have policy relevance, which is constraining to imaginative scientific enquiry' (Colander, 1992, p. 194). Also economic policy-making, however, is hindered by this misunderstanding of the proper place of applied economics. Due to uncertainties and the importance of non-economic aspects, applied work, which is policy relevant, often involves a substantial extent of judgement. Consequently, many academics perceive such work as being subjective:

That's wrong. All economic analysis - positive, normative and art - should be as objective as possible. Good applied economic work tells people how to achieve the goals they want to achieve as effectively as they can. No normative judgments about those goals need be made, and the analysis should remain objective. (Colander 1992, p. 195)

Indeed, the art of application should not be met with academic disdain. Whereas both positive and normative analyses are probably best pursued in academic freedom, an intensive communication between practitioners and academics might provide the most fruitful soil for the art of economics.

#### *Fogging*

A lack of communication between academic economists and policy-makers is a matter of bad marketing. The academic discourse is not cast in a language that policy-makers appreciate. The articles in the leading journals (indeed many of the profession's products) are too complex to be absorbed when policy is being formed. Academic books, reports and articles bear little resemblance to the typical work product of a non-academic economist. In order to get published, the academic economist has to conform to the style of the present economic discourse. Arthur explains that a clear writing style was a barrier to publication for his now classic 1989 *Economic Journal* article 'Competing Technologies, Increasing Returns and Lock-in by Historical Events':

I was at pains to keep the ideas in the forefront and not buried under a lot of theorems and pseudo-mathematical verbiage. I [...] decided to write the paper in an accessible, informative style. Given the current economics editorial process, this proved to be disastrous [...] I put the paper through eight rewrites

[...]; each time it became stiffer, more formal, less informative and possibly as a result more publishable'. (quoted in Gans and Shepard 1994, p. 173)

As a consequence of the implicit style guide of the top journals, many papers in economics can be characterized by the following model:

- facts are stylized facts, not broad uniformities;
- formal structure is emphasized;
- the 'interpretation' of the theory (that is, how it links up with the 'real world') is not provided; and
- predictions are not confronted with the data.

This suggests that theory has become detached from the real world and hence from policy. This distance between policy and science has increased over time. It is not a natural division, because economics was born in the policy debate. In fact, many top economists have been policy-makers. Ricardo (who is often seen as the prototype of the neoclassical economist) actually may have served as a role model for European economists such as de Grauwe or van der Ploeg who presently are Members of the Belgian and Dutch Parliament, respectively.

#### *Mental inertia*

Harberger (1993, p. 1) defines the policy economists as 'the ones who struggle in the field to harness the knowledge and insights from economics science to help improve the economic organization of their countries and the economic life of their peoples'. He writes (p. 3) that 'the life of the economic policy practitioner is very demanding, and requires sharp eyes, subtle perceptions and artfully moulded prescriptions'. Helping one's country must be a highly satisfactory activity because most policy-makers, according to Harberger (1993, p. 1) 'have to endure in frustration, waking up every morning to go out and fight battles they rarely expect to win'.

Indeed, as Tinbergen (1952) already pointed out, the execution of rational policies is often impeded by the tendency to maintain the *status quo* and by personal and institutional inertia. An 'aversion of the complex' may influence economic policy wrongly:

Many officials ... dislike to accept somewhat more complicated reasonings or the results of calculations even if from the scientific point of view they are decidedly better than the rules of thumb often accepted before. (Tinbergen 1952, p. 77)

Tinbergen's observations suggest that *new* insights are rather difficult to implement, because policy-makers both need to break new ground and to understand difficult analytical issues in evaluating the proposed policies. Policy-makers, however, do not hold a monopoly on mental inertia. The idea of supply side policies, for example, initially met considerable scepticism not only from economic practitioners but also from academic economists. Indeed, many viewed the idea that the distortionary effects of a tax might matter as pure ideology without a scientific foundation. Such incentive effects are now part and parcel of the economic tool box. Indeed the flows of both new theoretical insights (often developed by academic economists) to policy-makers and empirical insights (often discovered by practitioners) to academics seem to occur at a rather slow pace. This suggests that increased personal mobility between the academic spheres and the policy quarters would help to improve the communication.

*The Case of the Netherlands*

In their 1993 article on American and European Economics and Economists, Frey and Eichenberger discussed the Netherlands as an example of a European country where the influence of (former) economics professors on policy is substantial:

In December 1991, there were the following professors of economics in the cabinet of the Netherlands alone: Jacob E. Andriessen (University of Amsterdam) as Minister of Economic Affairs, Jo Ritzen (University of Rotterdam) as Minister of Education and Science and Jan P. Pronk (University of Amsterdam) as Minister for Development and Cooperation. Moreover, Wim Duisenberg (University of Amsterdam) was president of the Dutch Central Bank. (Frey and Eichenberger, 1993, p. 187)

In support of Frey and Eichenberger, we add that at the end of the cabinet period de Vries (the minister of Social Affairs and Employment) became professor at the Research Centre for Economic Policy at Erasmus University while Lubbers (Prime Minister) became professor at the Center of Economic Research at Tilburg University.

Andriessen retired and Zalm (a former director of CPB and professor at the Vrije Universiteit) became minister of Finance in the new Cabinet keeping the academic content at a high level (the other professors remained in the Cabinet).<sup>1</sup>

Does this imply that the Netherlands is developing the role model for the European way of bridging the gap between science and policy? Or is the Netherlands simply lagging behind and is the American approach creeping in? The results of van Dalen and Klamer's review of Dutch economists (Chapter 4) suggest the latter: the style of research is becoming more American and less Dutch (see van Winden 1995 for a similar opinion). Also Geelhoed's description of the Dutch situation (Chapter 9) illustrates that economic education and research are rather 'American' than 'Dutch'. Three workshops organized early 1996 by the editors of this volume revealed that a gap exists between theory and policy in the Netherlands even with respect to the very core of economics (for example, policy-makers and academics disagree on the question of whether a better functioning of the market mechanism will improve macroeconomic performance).<sup>2</sup> A recurrent theme was the difficulty of getting the economic recipe accepted by policy-makers (especially if they have no training in economics) and getting academics involved in relevant research. At about the same time, however, leading Dutch economists moved from academia to policy. The typical and unclear Dutch situation may explain why the present volume has grown from a conference held in the city of the Hague, the government centre of The Netherlands.

## **1.2 Plan of the Book**

This book is based on papers presented at the conference 'Economic Science: An Art or an Asset?' which was held in January 1996 in the Hague. The conference was organized by the Research Centre for Economic Policy (OCFEB at Erasmus University) and the Center for Economic Research (CentER at Tilburg University) in close collaboration with the Economic Policy Directorate (AEP) of the Netherlands Ministry of Economic Affairs.

Both the editors and the contributors are a balanced mix of economic practitioners, disbelievers and pure scientists. While the editors are from the Netherlands, the contributors are from both



continents, thus offering a balanced perspective on the American and European role models of economic science.

Part I deals with economic role models, thus setting the stage for the book. Two different views on the link between economic science and policy-making are presented. Frey and Eichenberger argue in Chapter 2 that economics departments are increasingly less relevant for the analysis of actual policies and institutions, that economists do not face sufficient incentives to conduct policy-oriented work, and that the globalization and Americanization of economics harms the contribution of economics to the art of policymaking.

Portes (Chapter 3) disagrees on all these three fronts. Modern economics has produced insights that eventually became very relevant to policy-makers, economists are pushed too much to produce applied research that is useful in the short term, and the standards set by the global and US community of economic scientists help to produce the best results in the long-run, also for those interested and involved in policy-making.

Van Dalen and Klamer more closely explore the differences between European and American economists in Chapter 4. They distinguish three different characters: the 'researcher', the 'policy adviser' and the 'academic professional'. Typically, the 'researcher' applies existing knowledge and techniques to real world problems and is willing to compromise but unwilling to sell his product (that is, to put it to the market test). The policy adviser aims to enlighten the policy process with scientific insights. The third archetype, the 'academic professional', is committed to the academic game, which is not set up with the intention to serve society. Their survey of Dutch economists shows a remarkable difference with Klamer's earlier findings during his 'conversations' with US economists. For example, in contrast to their American counterparts, Dutch economic PhD students consider a good working knowledge of the economy, its (recent) history and its institutions important for becoming a 'good' economist.

Theeuwes (Chapter 5) argues that economics is the art of persuading one's audience. Our understanding of a complex world is at best very limited. Hence Truth does not exist. Economics is rhetoric; economics is about making a good case. The successful

economist does not strive for a balanced view: he develops one side of the argument by selecting appropriate examples and arguments and by leaving out any evidence that might damage the case. To maximize the benefits of specialization, economists should specialize in particular views. Theeuwes expects policy-makers and politicians to judge which economic advocate has the most convincing case.

Part II provides two case studies of the interaction between policy and economic science. One of these studies takes the European perspective, the other one illustrates the American perspective. Jacquemin explores in Chapter 6 how the modern theory of industrial organization has contributed to European competition policy. In his view, this theory has provided a rich framework for discussing the problems and trade-offs that policy-makers face. However, due to a lack of observations, policy-makers have to make presumptions and shortcuts on the basis of their beliefs when facing these trade-offs.

Schelling (Chapter 7) sees the main role for economists as helping public policy to arrive at rational choices by making transparent the costs and benefits of considered policy actions. Schelling is rather sceptical about the impact of economic thinking on public policy in the US, with the exception of defence policy where game theory made a major contribution.

Part III addresses the roles of applied and theoretical economics in modern society, from the academic and the policy point of view.

In Chapter 8, Malinvaud (while recognizing the limitations of economics) stresses that modern economics has made major contributions to economic policy-making. He argues that academic economists should refrain from taking sides in debates if conclusions are not clearly determined. Given the state of economic science, economists (both in academia and in policy-making) should be eclectic and draw on various theories. Malinvaud stresses the merits of the Tinbergen view that the choice of policy objectives should properly be in the domain of the politicians, but that the results from economic research should not be unduly influenced by policy-makers. The royal road to better economic science and economic policy is more balanced teaching that stresses economic intuition.

Recognizing the importance of academic independent judgement as a major force against ideological policy-making, Geelhoed in Chapter 9 argues that the globalization of economics and the resulting dominance of the US role model are a threat to the quality of policy-making outside the US. Conforming to the standards and requirements of the US market, European academic economists have lost touch with the institutional context of their own countries. This is a pity because they educate new generations of policy-makers that are increasingly trained to solve the problems of the US at the cost of neglecting the macroeconomic problems and specific distortions of the European economy.

In Chapter 10, we argue that diversity in economic analysis is beneficial: it is the logical consequence of the principle of the division of labour. The demand for the services delivered by economists has grown tremendously; economics has developed into an industry and there has been a continuous increase in the degree of specialization of economists. Some economists mainly focus on the building of new specialized tools and models while others mainly devote themselves to providing policy advice. Extensive specialization, however, is possible only to the extent that communication is swift and intensive. Robinson (1933, p. 1) already noted that 'The gap between the tool-makers and the tool-users is a distressingly wide one' and she suggested that 'The practical man must be asked to have patience, and meanwhile the economist must perfect his tools in the hope of being able sooner or later to meet the practical man's requirements'. Meanwhile, the practical economist has waited for 65 years, the market for economic ideas has grown, specialization has increased further, and the gap has widened (possibly due to a longer chain of intermediaries between theorists and practitioners).

We venture to state that the problem is that most academic economists are in close contact neither with experts in other fields nor with the practitioners. Like Duisenberg (1997), we believe that the world will end up a somewhat better place to live in when we succeed in linking the academic profession more closely with the world of the practitioner. It will enrich the discipline of economics and lead to better policy.

**Notes**

1. It should be noted that the market position of Dutch economists in polity is not as strong as the quote from Frey and Eichenberger suggests. For example, one of our contributors, Ad Geelhoed, secretary-general of the Netherlands Ministry of Economic Affairs and former chairman of the EU's Economic Policy Committee is a lawyer by training.
2. The Research Centre for Economic Policy Research (OCFEB) Rotterdam simultaneously publishes a report on the workshops that were organized as part of the conference and that deal with the case of the Netherlands more specifically (van Bergeijk, Bovenberg, van Damme and van Sinderen 1997).