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PROBLEMS OF CHANGE IN AUSTRALIAN AGRICULTURAL ECONOMICS

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There has been a low level of methodological controversy within the Australian agricultural economics profession. Johnson's 1963 paper is the most significant and in it he passed criticisms on agricultural production economists not unlike those currently being made by political economists of economics in general. These past criticisms have in the main been ignored by the Australian profession but it is suggested that they are now being pushed with renewed vigour and they can no longer be ignored. It is argued that our policy work has by and large been successful and effective except for significant areas where our methodology was of restricted usefulness. In farm management the Johnsonian strictures would seem to apply but a more charitable interpretation is provided which should meet the approval of the political economists. Our almost complete neglect of development economics must soon draw to an end and we will find that the methodologies which we have relied on heavily and fairly successfully must be augmented as we become more involved in this field. The political economics challenge should be recognized and accepted with relish because the nature of our work is changing and will continue to change in the future. We have adapted fairly well as adjustment and equity have become major policy concerns. Meeting the political economics challenge will help this process of adaptation.

Introduction

Over the 20 years that this Society has been in existence Australian agricultural economists have displayed a significant and productive involvement in policy debate, considerable enterprise in the development and application of techniques, a relative neglect of theoretical issues [13] and a low level of controversy within the profession itself. Corden both flattered and criticized us when he remarked that agricultural economics in this country is ' . . . along with . . . wages policy, the most impressive branch of economics, though more for its usefulness and its technical competence than its originality' [4, p. 120]. Certainly we seem to be more remarkable for our willingness to roll up our sleeves and get on with the job than for staring at our collective navel thinking high and disquieting thoughts about the concepts we are using.

Controversy in the Profession

The low incidence of intradisciplinary controversy and appraisal is perhaps surprising in a sub-branch of a discipline as contentious as economics is. Only five of the 18 presidential addresses to date could

* Presidential address to the Twentieth Annual Conference of the Australian Agricultural Economics Society, University of New England, February 1976.

be regarded as appraising the state of the discipline while the most outstanding paper of the type to appear in our Journal was written by a foreigner, and was published 12 years ago.¹

Johnson's paper was an important one and, on re-reading it, one finds a freshness and a contemporary relevance. It was prompted by the tenth anniversary and publication of the second edition of Heady's 'blue brick' on production economics [6] which was once the bible of agricultural economics and with which many of you will be familiar. It is an assessment of the status of the farm management-production economics branch of American agricultural economics but it contains a message of far wider relevance geographically, methodologically and temporarily.

The paper commences with a description of the struggle in the U.S. between the economic theoreticians and the technical farm management workers who dominated the field prior to World War II. Johnson depicts this latter group as becoming stereotyped, sterile and having serious methodological weaknesses while the rising tide of economists believed that they possessed the apparatus necessary to define and analyze the problems confronting U.S. agriculture.

That the economists won the day is now history with which any agricultural economist worthy of the name should be familiar. The contemporary importance of Johnson's article lies in his assessment of the subsequent achievements of the victors.

He maintained that farm management became a narrow problem-solving subfield of production economics where once it had ranged from 'the technological and institutional through accounting to the sociological' [8, p. 15]. In identifying the trends since the triumph of the theorists he remarked on

- (a) the increase in theoretical and methodological research,
- (b) a shift in research interest toward 'macro and policy work',
- (c) decreasing use of the output of the researchers by extension workers, and
- (d) a lack of contact between the production economics oriented farm management workers and those, represented by the *Journal of Farm Managers and Rural Appraisers*, who have maintained an interest in the practical problems of farmers.

Johnson then went on to express some disillusionment with the achievements of the 'new wave' and even went so far as to say that '... neither public nor private decision makers have had much direct help from production economists in solving problems' [8, p. 18]. He suggested that this failure was due to specialization and to being too positivistic.

The specialization is depicted as a concentration on the correction of disequilibria in the belief that the attainment of equilibrium will denote solution of the problem. Johnson argued that this specialization leads to the neglect of problems due to the distribution of assets and income, the need for institutional change, and the possible need to disturb existing equilibria. On the other hand positivism, which eschews the knowledge of normative facts, leads to the neglect of 'problems

¹ This paper was written prior to the appearance of the first explicit criticism of the Australian profession [14]. The present paper is not a response to that one.

involving institutional changes, redistribution of property rights and income streams, technological advance, and education advances' [8, p. 21].

Johnson concludes his paper by suggesting that the continued productivity of production economists depended on their ability to use their tools 'without being confined to them and without becoming unduly positivistic as our account keeping and/or surveying forbears did before us' [8, p. 26].

In further articles in the *Journal* Johnson's arguments were repeated or supported by Healey [7] in 1966 and Mellor [11] in 1969. Within the context of northern development, Healey attacked Australian agricultural economists for being too obsessed with allocative questions to the neglect of institutional arrangements, political including ethical considerations, and non-measurable variables. He also argued that we permitted the restrictions of the new welfare economics to box us into a narrow Paretian view of our ability to provide policy advice. He asked whether it could '... not be legitimately maintained that it's the claim of welfare economics to be a positive science that has engendered so many disputes in the policy field?' [7, p. 186].

For his part Mellor repeated, within the context of economic development, Johnson's complaint about the obsession of production economists with disequilibria. He argued that production economists working in developing countries were not concentrating enough attention on the potential returns from deliberately changing the static environment.

Enter Political Economy

In advancing these arguments Johnson, Healey and Mellor seem to have anticipated some of the views of contemporary political economists. Indeed, the conflict between the technical farm management workers and the economic theorists would seem to be an outstanding example of the Kuhnian process of the succession of paradigms so frequently referred to by political economists. It is interesting that the young Turks who were the victors in this particular battle were working within a sub-branch of a paradigm which is currently under attack by contemporary political economists, particularly, within Australia, at the University of Sydney.

According to Butler [1] of that university, political economists are concerned with the fact that neo-classical economics is '... anchored in the notion of competitive equilibrium . . . It concerns itself with material wealth but not with the rights of property and the interpersonal distribution of a community's wealth . . . It ignores the political contracts and social conventions which preserve and extend an individual's wealth. It identifies market power with cash income but not at all with assets . . . It can cogently explain the outcome of free exchange in those few markets within which there are many atomistic buyers and sellers but can say nothing that is not tautological about other transactions. It is so preoccupied with mutually advantageous exchanges that it virtually ignores exploitation and the existence of conflict between people, as opposed to conflict between occupations, in the distribution of scarce resources . . . (it) recognizes the state in only a

very limited fashion' and it does not recognize the varying extent to which people have recourse to the authority of the state.

The arguments of the political economists range beyond those of Johnson, Healey and Mellor but there can be no doubt that the methodology which we have lived with since the establishment of our profession in Australia is under attack. This attack is taking place on a broad front and is being carried out with vehemence and conviction. The past criticisms of those such as Johnson, Healey and Mellor have tended to be ignored, particularly in Australia, but the nature of the current conflict within the body of economics itself must be taken seriously by all of us. We agricultural economists must expect to justify, if only to ourselves, our past, present and future preoccupations. It is my hope in this address, to contribute to the initiation of this process with a brief examination of some fundamental aspects of our work and our attitudes over the last 20 years.

In doing this I do not wish to be taken as an uncompromising critic of the profession. I believe we have given substantial help to both private and public decision makers, particularly the latter, even though sometimes the help was not sought and on other occasions was acted upon only after a long lead time. My remarks are prompted by the belief that the received neo-classical methodology of western economists is under attack and that this attack is prompted by a change in the perception of the nature of the problems confronting economists. The attack grows from a concern for inequities in the distribution of wealth and power and the pervasive phenomenon of market failure. As applied economists we must share these concerns and assess our approach to them if we are not to be swept aside by the tide of history.

An Overview of Policy Work

Australian agricultural economics came on stream at a time when, as Corden [4] points out, the emphasis was on the failure of agriculture to expand output sufficiently to cope with the demands which the universally desired economic growth imposed. Mainly for this reason the first two post-war decades were devoted to a concern for trade policy, price policy, farm and regional development and the efficient growth of agricultural output. It could be said of those days that a career in agricultural economics could be based on a flair for budgeting and a sound grasp of agricultural technology. Some of us were no more economists than we were agronomists but we occupied an important half way point between the technologists and the economists² as Australian agriculture entered on a growth phase based on the falling prices of purchased inputs, particularly energy and fertilizer.

The theoretical underpinning of the profession was production economics followed, sometimes a very bad second, by price theory. This was overlaid by knowledge of the issues, institutional arrangements and trends in international trade. There was little call for the recognition of welfare economics as a coherent and relevant body of theory while macro-economics was a strange unexplored territory to some practitioners. We were often neither particularly economic nor agricultural,

² Dillon [5] has referred to our bio-economic approach.

but we possessed important saving graces in the form of a knowledge of agricultural technology and institutions, a certain fearlessness when it came to empirical issues and an avoidance of sloppiness in the use of the theoretical concepts which were judged to be relevant.

In this environment the seeds sown by recruits to the profession trained in the American mid-west fell on fertile ground. Economic efficiency was pursued with a single-minded earnestness which was powered by the concepts of perfect competition. The fact that this pursuit was compatible with the goals of a growth-oriented society in which agriculture played a pivotal role meant there was general consensus within the profession as to the direction it should take. Our work was predominantly directed toward the determination of optimal productivity increasing policies. Agricultural economists became known for the way in which they were prepared to commit themselves to clear-cut recommendations for improvements in the allocation of agricultural resources.

We were successful in our attacks on closer settlement, irrigation, price policy and so on, perhaps because of the appropriateness of our methodology but certainly because the policies we were attacking were, by and large, bad policies from quite a number of standpoints. We were effective because our efficiency analysis had the virtues of coherence and cogency together with an appearance of being less value laden than some alternative arguments. However, it is arguable whether our success should be taken as a demonstration of the 'correctness' of a neo-classical, efficiency-oriented stance, even at that time, and certainly in general.

Perhaps we were guilty of the sins of omission of which Johnson complained but we were dealing with a generally prosperous agriculture where questions of income distribution did not loom large but where resource allocation and growth did. In general, discussion neglected the distributional consequences of policy or these were pointed to as consequential inefficiencies which, when added to the more serious allocative inefficiencies, made the policies under attack even less desirable. Maybe questions of income distribution were too value laden for our positivistic heads but our implicit values were sufficiently close to those of society as a whole for our work to affect public decision makers in a significant way. Even so, on occasions, questions of income distribution were important and then our efficiency blinkers did reduce our effectiveness.

Thus, in the case of that running sore of Australian agriculture, the subtropical dairy industry, the literature displays an excessive concern for disequilibrium. Resource productivities were spoken of as being below opportunity cost and it was concluded that desirable resource reorganization, either on or off the farm, was possible. To an extent this diagnosis may have been true but, by virtue of hindsight, it is probably also true that many firms were in fact in equilibrium but had opportunity costs which were so low that the problem for many operators was not one of resource allocation but one of poverty.

We could also be accused of being selective in our choice of problems like the well known drunk who, having dropped his keys one dark night was found searching for them under a street light, not because he had dropped them there but because that was where he could see.

So did we tend to look for problems which could be illuminated by the light of our methodology.

Thus, along with Johnson's colleagues, we have avoided problems where markets are highly imperfect and where the study of institutions and their behaviour could be important. In this regard one could point to the relative neglect of the markets for the three major inputs of land, labour and capital. Similarly, I am struck by the neglect of the legal and institutional implications of our frequent calls for greater use of the price mechanism in allocating irrigation water.

In our policy work our bridge building with other disciplines has been poor. We are a proud, independent and mistakenly self-sufficient lot and, in this respect, our neglect of the rural power and political structures, particularly as sociological and political phenomena, is an indictment of a group of professionals calling themselves agricultural economists.

Finally our ventures into agricultural marketing have been quite limited. This contention is in line with the comment by Dillon [5] in his presidential address in 1972 but is inconsistent with the very high proportion of articles which Phillips [13] classified as falling into the marketing bin. The point is that our deductive, model building, hypothesis testing approach has taken us a long way in respect to the analysis of price formation in certain markets, the forecasting of prices and the study of location of processing plants, but it falls down with regard to the part of marketing which has come to be called agribusiness. Our neoclassical apparatus does not work well in this area which is characterized by a concentration of a few corporate firms. It is in this area that the more inductive case study approach³ of modern business schools, which is rather alien to our traditional, analytical model building approach, comes into its own. This area, which could reasonably be regarded as falling within the ambit of modern agricultural economics, now looks as if it will be preempted by the growing field of business studies. This is a development we could come to regret, both in terms of our future viability and in terms of the effectiveness of our research in what we call marketing.

An Overview of Farm Management Work

What then of the field of farm management which is regarded as falling within the domain of agricultural economics and which has always had reserved for it a significant proportion of academic resources? Has this field shared the fate which Johnson described as befalling farm management in the United States? The answer to this question must be an unequivocal yes. We may have been spared the early battle which Johnson described but I think we have not been spared the aftermath. Farm management barely exists as a branch of agricultural economics providing advice which influences the decisions of farmers.

Apart from the problems already defined by Johnson which are associated with the methodology of the production economists and

³ It is interesting and perhaps paradoxical that farm management is taught, to a very large extent, by means of such an inductive case study approach. We cannot claim that the approach is new to us.

which undoubtedly have been present in Australia I believe this situation can be explained in a number of ways. For one thing agricultural economists are induced to work elsewhere. The personal rewards for working in farm management are generally less than in other areas. Not many of the farm management workers of 10 years ago have been able to resist the lures of better paid fields such as administration or selling, or policy research or advising. Many of those remaining in the field have found better pickings with international agencies than in Australia. Further it is now difficult to build a professional reputation on the basis of farm management work, and for academics in particular, the accolades lie elsewhere.

However, these are minor considerations and a number of more important points remain.

John Dillon has separated farm management workers into a practical group and a theoretical group with the former looking to help farmers here and now and the latter to a 'normative scientific technology of management whose payoff lies in the future' [5, p. 78]. The extent of the division between these two groups is exemplified by the establishment of a separate and vigorous Farm Management Society in Australia. However, Dillon did not see any disadvantage for agricultural economics in this split as long as sufficient economists kept a foot in both camps.

Dillon was more sanguine about the split than was Johnson about the comparable split in the U.S. Yet I believe the division is somewhat greater in this country than in that one. Perhaps this is because we do not have institutions like the land grant colleges where the occupants of the ivory tower have the labourers' muddy fields continually in sight. Possibly more significant though is the fact that intellectually difficult problems to do with risky decision making loom larger in this country and they make it harder for the theorists to contribute to the work of the practitioners.

If the payoff from a normative scientific technology of management lies in the future it would be wrong to judge present work on the basis of present results. On the other hand it is reasonable to look for a present-day payoff from work done in the past. Probably such a search would prove to be disappointing. The contributions of management theoreticians to the journals and conferences of this Society and of the Farm Management Society appear to be restricted in the main to the development and refinement of techniques, while practical farm management still appears mainly to rely on budgeting and the techniques of accounting. Very few of the techniques and concepts of the management theoreticians have found an enduring place in the tool kit of the practitioner.

In the field of farm management many techniques have been called but most have been found wanting. Superficially the impression could be gained that, after the first ecstatic breakthrough with the application of budgeting procedures, there has been a sustained rummaging through a job lot of techniques, mainly of a programming nature, which, while producing many masters and Ph.D. theses and perhaps a few unthinking technicians, has not produced many useful farm management recommendations of either a general or a specific nature. It is not surprising that, outside the unilluminating category of 'research technique', most

of the concentration on methodology, which so disturbed Phillips [13] in his recent paper, was in the field of farm management.

This impression of the work of farm management theoreticians would suggest that they have fallen into the trap which Johnson described and that their work is sterile and consists of manipulating techniques for their own sake. However, occasional incidents of mindless number crunching aside, I believe a more charitable interpretation of their work is possible.

The conceptual apparatus which production economics provided for the guidance of resource and product combinations was very powerful indeed. The techniques of regression and linear programming, coupled with computers, enabled the empirical testing of these concepts in an increasingly ambitious way. However, with the passage of time it became obvious that the concepts and techniques were not powerful enough in relation to the managerial problems which their use had enabled us to define. The restricted information content of the various deterministic models which had been developed did not warrant the expenditure of more than small sums of money on their use in practical farm management.

Following these discoveries there has been a search for ways of overcoming these problems posed by time and the refusal of decision makers to restrict their objectives to profit maximizing. This has led, increasingly, to the study of the role of uncertainty in decision making. As a result the door has been opened on a vast and complex field well beyond the neoclassical starting point of the profession in Australia. Progress has been such that we are a lot closer to being able to advise farmers how to play percentages than we were when Campbell in 1958 [3] urged that this be done, though I cannot suggest how close we are to concepts and techniques which have an information content high enough to justify their widespread use in practical farm management. All I know is that we are not there yet and so the gap at the practitioner level remains. My point is that we have worked our way forward in this very difficult field. Maybe our sense of direction has been lost from time to time but the split between the practical men and the theoreticians exists, not because the theoreticians have failed, but because they have yet to succeed. Maybe success when it arrives will be somewhat anti-climatic for it is possible, as Anderson and Hardaker [2] suggest, that the scope for intuition will always be high in farm management and that our techniques will be restricted to the definition of efficient solution sets.

The International Dimension

Despite the significance of international trade to both Australia in general and Australian agriculture in particular it would be fair to say that, outside the secretive area of government, our work on international markets and the policies of foreign countries has been negligible. Viewing our major export industries as price takers would seem to justify this neglect though, with an increasingly decommercialised world trade in agricultural products, the level of our intelligence on the policies of other countries must be maintained at a high level. However, at the moment, I am more concerned with what should be, but has not been, a major preoccupation of the Australian profession, that is development economics.

Apart from ad hoc individual forays we have successfully stood aside from the great post-war development effort. Just as we have avoided the temptation to expand into resource economics or agribusiness and have concentrated our attention on the farm sector.

Outside the Australian National University, any agricultural economists who wanted in the past to make a career in development economics virtually had to leave the country and join an international agency. Many outstanding Australian agricultural economists have, in fact, done that. Apart from the Research School of Pacific Studies, there has been no institutional commitment to working in poor countries as we have wallowed in a sea of national introversion. All of this will inevitably change. A number of the exiled expatriates will return to work in their chosen field in their native country. Academics will experience increasing pressures to teach in the area. More and more agricultural economists will find attractive career opportunities in the field while discretionary research resources will move into an area which will be easier to fund than will traditional research. There will even be those who will believe themselves to be more useful in this field of endeavour than in attacking the problems of a rich, complacent and conservative homeland.

We will find this the most rapidly developing area of activity in Australian agricultural economics. We will also find that it is an area where the restricted allocative or productivity methodology which we found so fruitful in the early years of the profession is potentially damaging. Value judgements must be made, political and power profiles must be studied and their influence recognized. Customs, institutions and law will not be taken as implicit givens but will become an explicit part of the analysis.

Synthesis

I have argued that in our non-farm management work we have in the past displayed a strong tendency toward the positivistic, efficiency oriented approach which Johnson viewed with such alarm and which is currently under attack by political economists. However, while there have been excesses, I believe that, in the case of the Australian profession, the alarm would be ill-founded. Perhaps this has been for the wrong reason, but in the two decades since the end of World War II Australian agricultural economists have been very productive indeed.

In the field of farm management proper I have argued that the profession, while not being directly productive at the farm level, has not engaged in a sterile and repetitive use of irrelevant techniques. Rather it should be regarded as having been engaged on a long search for theories and models of the managerial process which will reinforce budgeting as the most important technique in the field. Rather than remaining trapped in a sterile positivistic trap it has been in the main conditionally normative and I would say that the main thrust in the field is now distinctly normative and that the political economists would applaud this development. However, it cannot be denied that a theoretician-practitioner gap remains.

I detect a feeling among workers in farm management that the problem is too great and the potential rewards too few for a more analytical approach to replace or strengthen significantly the present inductive, intuitive approach. Even if this is true, the work must be continued

because of the conceptual basis it provides for practical farm management workers. The problem is that material support for such work may become attenuated because its shadow price is less immediately obvious to the allocators of research funds.⁴

While recognizing that conventional economic methodologies are being challenged, I am confident that the profession, despite its several weaknesses, omissions and failures will, warts and all, prove itself equal to the challenge. Indeed, I think that we have moved in directions which anticipate the challenge. I have already described the strongly normative orientation of contemporary farm management theorists. I have yet to refer to the important changes in the non-farm management fields in the last decade. The naïve productivity model⁵ is now reduced in importance and problems of equity, change and institutional arrangements have joined allocative problems on centre stage.

McKay's presidential address [9] in 1967 provided a watershed for the profession. It, together with the Makeham-Bird workshop [10] at the University of New England twelve months later, marked the initiation of a period in which rural poverty and adjustment are policy issues in their own right, not just a by-product of a more worrying resource misallocation. The welfare of farm people has now joined the productivity of those people, and of the resources they control, as a major issue for the profession. Australian agricultural economics is getting a human face. Who knows, the breach between us and the farm community may eventually come to be healed.

We still have some distance to go along the path of change. However, it is clear that the profession has been moving into a more complex world. In that world our analysis will be more difficult and probably less elegant. Further, our values will have to be made more explicit. Increasingly agricultural economists will have to be aware of the nature and content of welfare economics and of the crucial role value judgements must play in economic analysis. Because we are practical people we are also pragmatic. We have shown a capacity for adaptation and change in the past; I see no reason why we should not continue to be productive in the new and complex policy world in which we now operate.

Our progression into this world will be assisted by an increasing involvement in development economics. The expansion of the Australian aid budget and the establishment of the Australian Development Assistance Agency⁶ meant that this expanded professional involvement will be inevitable, as is shown by the programme of this Conference.

Conclusion

If Australia is the 'lucky country' then perhaps Australian agricultural economics is the lucky profession. We were launched on the sea of social criticism and public and private policy advice equipped with the methodological strengths and weaknesses of the production

⁴ It is probable that support for this type of work is currently more readily available in relation to developing countries. The reasons for this probably lies in the imperfect understanding of the motives of the peasant farmer and of the crucial role of peasant decision makers in such countries.

⁵ The phrase comes from Ross Parish [12].

⁶ The recent act of political vandalism whereby the Agency was made a Bureau of The Department of Foreign Affairs and Australia lost its independent aid policy may slow the process down but I cannot see it being reversed.

economists who Johnson criticized. While agreeing with much of what Johnson had to say in attacking the production economists in U.S. farm management and believing that many of these faults have also been present in the Australian profession, I also believe that the resulting potential limitations of the profession were concealed by the relevance of our work in relation to the export sector of an economy which was oriented very much toward growth. I have argued that our efforts have met with a commendable measure of success and that the new directions our work is taking as problems of equity become increasingly important are encouraging signs that we are not 'captives' of the productivity paradigm. I can see that we will have to continue moving in these directions and I am concerned that we should move fast enough. It is in this respect that the critics of neoclassical economics will be very useful.

If social justice is to be of greater concern to us then it will pay us to examine closely what these critics have to say. We must incorporate what is useful and reject what is dross. We have important methodological lessons to learn, particularly in relation to the role of value judgements and of our traditional analytical, deductive approach to problem solving. We must be receptive to alternative approaches and we must accept that the predominant methodology of the first two decades of our existence has its blinkers which reduce our effectiveness in important problem areas. These problem areas promise to become increasingly important to us and so, in the years ahead, we will become increasingly aware of these blinkers and will either discard them or become a group of technicians specializing in an area of declining social significance. That work will continue to be important but our abilities are such that it would be criminal to restrict ourselves to it.

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