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African Association of Agricultural Economists. *Shaping the Future of African Agriculture for Development: The Role of Social Scientists.* Proceedings of the Inaugural Symposium, 6 to 8 December 2004, Grand Regency Hotel, Nairobi, Kenya

Expanding the Frontiers of Agricultural Economics to Meet the Future Challenges of Agricultural Development

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Abstract: In this paper I challenge the theoretical building blocks of agricultural economics and then provide some indication of how the discipline has rectified some of its shortcomings. The introduction of the New Institutional Economics into our discipline has been a major improvement. I have then argued that the challenges facing our profession are so huge that we need to think about further adaptation by making more use of other social sciences such as sociology and anthropology. This could help us understand the major complexities of dealing with the challenge of black economic empowerment in agriculture. This will however, also be necessary for us to adjust our research paradigm. This argument is well articulated by Doyer and Van Rooyen (2001) when they motivated a research method to study agribusiness supply chains. The challenges highlighted that for agricultural economic analysis to capture complex business reality and decisions to explain and predict the institutional and governance structures and optimal resource allocation behaviour of firms, approaches to research that combines positivist and constructivist are the most sensible. The combination of these approaches enables a holistic approach to the research problem. Positivism's strong explanatory and prediction capabilities are combined with the strong understanding and reconstructive capabilities of the constructivist approach. Throughout this process, qualitative and quantitative data can be used in combination. Since our research work also needs to focus more on structural and institutional issues it seems quite evident that we have to adopt a more eclectic research approach making much more use of case studies. The skills from the other social sciences will desperately be required here to advance our discipline into previously untreated terrain. This is necessary to make sure we make the important contribution to the task of building Africa's Agriculture.

1. Introduction

Agricultural Economic scholarship in Africa always had the luxury of problem solving and applied research. Living up to the challenges facing farmers, agribusiness and rural communities has ensured that our work remained relevant and focussed on the needs of our different countries, but took our time away from the "frontier-pushing" research and theoretical work of our colleagues in the US and Europe. In this sense agricultural economics in Africa often borrowed from these scholars and applied the models and methodologies to local problems.

The influence from scholars from abroad has also highlighted what many of us perceived as limited quantitative skills and application in our discipline in Africa. The examples set by leading journals such as the American Journal of Agricultural Economics, Journal of Agricultural Economics, Agricultural Economics, World Development and Development and Cultural Change have put agricultural economists in most countries in Africa in pursuit of more quantitative and perceivably more 'rigorous' output. As a result there has been a continued jockeying for position in terms of the institution or researcher with the 'best' analytical tools or models. This was despite the fact that data has always been a problem. Analytical work and modelling in agricultural economics are often associated with 'good' or 'solid' and many of us fell in this trap by doing poor research and analysis but with seemingly good mathematics. This is often the problem with economists, which Bromley (1990) highlighted – we offer bad economics as being superior to politics. More 'rigour' (read math!) is often considered to mean more precision and more scientific and

more value free and will therefore produce more respect and reward. But in order to do the mathematical analysis economists make many unrealistic assumptions in terms of the new classical economic paradigm.

Parallel to the move towards greater rigour has been the increased application of the principles of the New Institutional Economics (NIE) in agricultural economic research in Africa. Much of the research applications made use of the Transaction Cost Economics paradigm to explain economic behaviour, choice of organisation forms, etc.

It is important to stress that the NIE is not only about transaction costs economics. It is a vast and relatively new multidisciplinary field that includes aspects of economics, history, sociology, political science, business organisation and law. In Kherallah and Kirsten (2002) I argue that the expansion of economics into these other social sciences has made NIE by definition a multidisciplinary field of study comprising several branches. It is the use of economic-type methods in politics where economists and political scientists have created the growing field of collective choice, and it is in the study of law that the ideas from economics led to the major field of “law and economics”. Economists’ ideas and methods also found their way into sociology, demography and into studies of the family and crime. Whereas economists traditionally studied prices, quantities and fluctuations, they now also study the governance structures and dispute-resolution mechanisms of societies. It is to these studies that the label “New Institutional Economics” is attached, but according to Olson and Kähkönen (2000) it sometimes also refers to the expansion of economics as a whole. The influence in other social sciences of the deductive methods of economists has been so far reaching that there is, in some sense, a theoretical integration of the social sciences under one overarching paradigm. Whether this new paradigm will be the new institutional economics, remains to be seen because there is still some debate as to what falls under the NIE banner.

In the rest of the paper I am trying to go beyond the NIE as we know it and argue for further adjustments in the way we organise our agricultural economic “tool box”. Although I argue that the NIE is a fascinating and interesting development, we need to take stock and ask whether we are on the right track and whether we should not adopt other ideas, paradigms and principles and thoughts from other social sciences to address the challenges in African agriculture. This is the theme of the rest of the paper but first I need to remind us of the traditional critique against mainstream economics.

2. A critique of Mainstream Economics

African agricultural economists – and for that matter most agricultural economists in the world – use the neo-classical and welfare economics (known as mainstream economics) as their reference framework. This is mainly due to the nature of their academic training and political orientation (Kassier and Kleynhans, 1989). Consequently much of the theoretical building blocks of agricultural economics suffer the same problem as mainstream economics, i.e. being removed from reality. Although we have been doing work on relevant problems our approaches and research methodology suffer from assumptions and constructs that are not related to the way business and markets are actually working. The economic system is a complex network of markets, organizations, and contractual relationships. While neoclassical economic theory provides a sound basis for our understanding of market behaviour, our understanding of the economic system itself is under-informed due to a lack of systematic, theoretical analyses of how economic exchange is structured and how the surrounding institutional structures (legal, political, and social) affect those decisions.

A series of papers in a recent issue of *World Development* (Harris, 2002; Jackson, 2002; White, 2002; and Kanbur, 2002) provide additional criticism by showing how mainstream economics, despite its considerable strengths is incapable on its own of adequately addressing central issues of development and how development analysis and policy would benefit greatly from treating other disciplines and methodological approaches as equal partners in tackling tough issues. The move to more quantitative analysis in agricultural economics makes the same critique also applicable to our discipline. There is still today the perception amongst (agricultural) economists that quantitative techniques provide more “rigor” than qualitative techniques. Hence it is often felt that economics, with its more rigorous footing, is a sounder basis on which to formulate policy advice (White, 2002). The point here is that quantitative analysis is possible given the models often rely on a set of simplifying assumptions such as that all agents

pursue their short term interests, that market transactions are “arms-length” transactions, and the market transactions are impersonal (Kanbur, 2002; Milberg 2001). The new classical economists often profess the concept of the ‘atomistic’ *homo economicus* and therefore ‘economic rationality’ to enable them to construct ‘models of the economic universe in the image of Newtonian mechanics’ (Fullbrook, 2002).

Samuels (1997) provides an additional point of critique by arguing that some danger can be encountered when economists ignore process and mishandle interdependencies between endogenous and excluded variables. The main problem Samuels has with the application and use of mainstream economics in disciplinary (basic and applied) or multi-disciplinary work of agricultural economists is that mainstream economic theory ignores the ‘process’ whereby a market mechanism move to equilibrium and how that changes. The point he is making (Samuels, 1997:229) is that the pursuit of determinate solutions has led economic analysts to substitute themselves for both actual economic actors and actual economic processes. What happens in reality by real economic actors are excluded and replaced by imaginary, often question-begging and presumptuous constructions by the economic analysts. This constrains to a large extent the practical problem solving and subject matter or issue oriented work of agricultural economists.

Much of the work of agricultural economists remains however applied mainstream determinate economics. Without further improvements, applications of mainstream equilibrium economics allow agricultural economists to do price analyses, supply and demand analyses, investment analyses, spatial analyses, comparative static analyses and linear programming. Glen Johnson (1997) also notes that there have been a number of extensions and improvements by agricultural economists to overcome the deficiencies of mainstream economics by developing theories through relaxing the assumptions of fixed populations and skills, technology and institutions. These include theories of human capital formation and induced technical and institutional change. Bacquet (1997) argues that agricultural economists have been successful in making improvements to mainstream economic theory, which increased our understanding of agricultural supply response, changes in demand factors for farm production and cash flow and bankruptcy problems of farmers. These and many other extensions of the mainstream theory are very useful. There is therefore tremendous scope for agricultural economists to do basic disciplinary work to remedy the deficiencies of mainstream economics that constrain the usefulness of economics of agricultural economics and limits the ability to tackle the real problems of agriculture and rural communities (Johnson, 1997).

One example of such disciplinary improvements by economists has been the development of the New Institutional Economics (NIE) and especially the application of the NIE in agricultural economics. NIE addresses some of the concerns and restrictive assumptions of standard new classical economic theory (mainstream economics) and acknowledges the important role of institutions, but argues that one can analyse institutions within the framework of neoclassical economics. In other words, under NIE, some of the unrealistic assumptions of neo-classical economics (such as perfect information, zero transaction costs, full rationality) are relaxed, but the assumption of self-seeking individuals attempting to maximize an objective function subject to constraints still holds. Furthermore, institutions are incorporated as an additional constraint under the NIE framework. As Langlois (1986, p.5) puts it, “the problem with many of the early institutionalists is that they wanted an economics with institutions but without theory; the problem with many neo-classicists is that they want economic theory without institutions; what the New Institutional Economics tries to do is provide an economics with both theory *and* institutions.”

The changes in agricultural and food markets have also led to a situation where we now find economic actors engaging in transactions rather than a large number of atomistic firms constituting a ‘market’. This renders a limited applicability of mainstream economics due to its assumptions of homogeneity and rationality. This also has major implications of how we analyse the problems of market access. It is these types of problems that can only be addressed by the extensions of the neo-classical economic theory such as the New Institutional Economics.

Technological advances, specialization and the rise of impersonal exchange in the late 1800s increased transaction costs in the market place. One aspect from this is the increasing uncertainty about product quality, which increases the likelihood of moral hazard and adverse selection problems as illustrated by Akerlof’s (1970) ‘lemons problem’. In the market for foods the ‘lemons’ problem manifested itself in the adulteration (cheapening) and false representation of food products. The applications of the principles of

NIE provide us with an understanding why there is a need for increased co-ordination. As a result of the demands from consumers for tailored foods and food safety processors/marketers have avoided traditional spot markets and have engaged in more direct market channels such as market and production contracts, full ownership or vertical integration. These more personal relations and transactions are best analysed by applying the principles of NIE.

It should however be indicated that the NIE is also not without its flaws. In much of the NIE and specifically in the transaction cost economics (TCE) paradigm the 'transaction' is the unit of analysis. The problem is though that the TCE analysis has limited relevance to those that are not in the market – those that are still not able to make a transaction. Traditional transaction cost applications would thus not help us much but we still need to find policy and business solutions for the problem.

For sociologists the rational choice tendency still contained in transaction costs economics, remains a major problem. Sociologists are critical about the fact that economists attribute human interaction to individual rationality and are abstracting away from fundamental aspects of social relationships that characterise economic as well as other actions (Richter, 2001).

To conclude this section I return to the concept of 'self-interest' that drives rational behaviour. Self-interest seeking behaviour of individuals link up with the concept of 'economic man' discussed earlier and assumes that individuals act to maximise profit or maximise utility. In an environment of perfect information the standard theory shows us that the economy will through the working of the 'invisible hand' achieve a competitive equilibrium. But the main defect of a strictly competitive market (even if it can be realised) is its severe moral weaknesses. For even if competitive markets were to produce efficient outcomes (which is highly unlikely), these efficient outcomes would in all probability not be justifiable and also fail to coincide with the allocation that society as a collectivity prefers on the basis of its definition of social welfare as expressed through the democratic process. In an environment of asymmetric information it might be that people are constantly looking for opportunities to steal and to cheat. It is only penalties and sanctions that prevent individuals from doing so. We can therefore understand why Okun (1975) argued that "...the market needs to be kept in its place ... [because] given the chance, it would sweep away all other values, and establish a vending machine society".

It is very easy to adopt the model of uncompromising 'economic man' but Ben-Ner and Putterman (2000) argue that this will ignore the realistic complexities in human behaviour and psychology. They argue that there is no scientific basis for the assumption that self-interest or own-well-being is the only concern of individuals. Ben-Ner and Putterman (2000) list evidence from evolutionary biology and other social and behavioural sciences that suggest individual human beings may be genetically inclined toward concern not only with their own success but also with the success of their offspring and other kin. It is further suggested that individuals will be inclined toward co-operation with others. These are some of the arguments Ben-Ner and Putterman use to show that values of people matter in economics and that it should be endogenised in economic analyses. Ben-Ner and Putterman argue therefore that human values could be an important force to keep "the market in place". This is contrary to Okun's (1975) plea for democratic capitalism where the state has to play a role in such a process.

The subject of values was once considered to lie beyond the purview of economic science but industrial civilisation has now a rising anxiety over its social health and cohesion and now we see the subject of values seeping into economic discourse. The work of Ben-Ner and Putterman (2000) is one of the more recent pieces of literature highlighting this trend. In addition the recent World Food and Agribusiness Forum hosted in the Netherlands in June 2002 had "Food Chains: Connecting value with values" as its theme. Here the values of ecology and ethics and social accountability were discussed and suddenly values have now also entered the business arena. A further illustration of the increasing importance of 'values' is the discussion and agenda points during the World Summit on Sustainable Development held in Johannesburg. It is clear that more changes in economics are on the cards and it could be that economics would become a much 'softer' and humane science thereby getting rid of the label of 'dismal science'.

3. Beyond the New Institutional Economics: Elements of a New Paradigm for Agricultural Economists

The discussion immediately above provided an overview of the standard (and recently expanded critique) of mainstream economic theory and in the process I have already alluded to some extensions of the standard theory. In this section I take this argument further and debate the elements from other social sciences that could be applied to ensure that we as agricultural economists are in a position to address the challenges facing agriculture in Africa. It is therefore appropriate to consider this first in order to provide the context in which to debate the appropriateness of our current conventional wisdom.

It will probably not be difficult to develop a long list of challenges and issues that will influence the work of agricultural economists. To name a few:

- The agricultural issues emanating from the world summit on sustainable development.
- Rural poverty
- The agricultural agenda for a successful implementation of the new partnership for Africa's Development (NEPAD)
- Food security
- The Doha round of world trade negotiations and the broader issues of globalisation
- The competitiveness of African agriculture.

For me to discuss all of these would not be proper because it will take another paper to do justice to all of them. I will briefly run through the issues related to the challenge for agriculture in sub-Saharan Africa since it relates very well to the challenge facing NEPAD. The discussion of these challenges will then lead us into the critical assessment of our agricultural economics paradigm.

Pro-poor agricultural growth in sub-Saharan Africa

Within sub-Saharan Africa 70% of the poor are in rural areas. Alleviating poverty is thus a major challenge requiring interventions to stimulate to political development and economic development. In the literature there is a general consensus that in many of the poor rural areas of sub-Saharan Africa increasing agricultural productivity will have the greatest potential for poverty-reducing growth, either through direct benefits, indirect expenditure linkages or through local consumer benefits. The argument is also that via linkages, growth in the non-farm economy is the most vibrant when farming is thriving. Successful agricultural development will stimulate diversification in the non-farm rural economy. Despite this consensus agricultural growth in sub-Saharan Africa has been disappointingly slow and years of interventions by donors and governments had very little impact. Despite the agreement on agriculture's importance we have seen over the years that agriculture's share of government and development agency investments have been falling. This paradox is what Dorward et al (2002) call the "agricultural investment dilemma". These authors also argue that the policy prescriptions for Africa embedded in what they call the 'Washington Consensus on Agriculture'(WCA)¹ are partly responsible for this problem in African agriculture. The basic policy prescriptions emerging from the Washington Consensus are essentially based on recommendations of decentralisation, deregulation and market liberalisation². A key requirement according to the WCA is agricultural systems intensification implying increased productivity through increased technology. Other elements include:

- Expansion of production in non-traditional crops
- Improvement in economy wide policies – mainly through structural adjustment programmes.
- Reviewing barriers to entry in input markets
- Land reform and secure property rights
- Reforms on tax policy is needed

¹ The Washington Consensus refers to a set of analyses and prescriptions considered being World Bank/IMF orthodoxy. The Washington Consensus on Agriculture is extracted from reports by the World Bank, UNECA, IFPRI and more recently the IFAD 2001 poverty report. This section is a largely summary from the arguments in Kydd and Dorward (2001) and Dorward et al (2002).

² The flaws in these policy recommendations for many developing countries are well articulated in the controversial book by Stiglitz (2002).

- Better government services in the delivery of public goods and services
- A challenge to OECD governments to reform their agricultural policies to reduce distortion in world commodity markets.

Although many of these prescriptions can be applauded there remain a number of gaps and inconsistencies mainly in terms of institutional analysis (Dorward, et al. 2002). Very little is said about institutions (specifically related to agricultural finance for poor farmers). In addition the WCA writers tend to overstate the advantages of smallholders without taking account of disadvantages smallholders will face in liberalised global markets.

The critique by authors such as Stiglitz (2002), Dorward et al (2002) and Kanbur (1999) is much related to the point of poor institutional analysis. Liberalisation policies and institutional changes are often recommended without taking account of the particular country's systemic approach to dealing with economic co-ordination problems.

To unpack this point we need to distinguish between different forms of capitalism (or different sets of institutions). For our purposes it is sufficient to distinguish between the version of the British-American (BA) world that is based on, and legitimised by, the ideology of *liberal capitalism* and the version of Continental European (CE) countries that is based on, and legitimised by, the ideology of *social democracy* (Terreblanche, 2002). In their book *Varieties of Capitalism* Hall and Soskice (2001) make a comparable but very interesting distinction between the institutional framework of the liberal market economies (LME) – Britain and America – and that of the Co-ordinated Market Economies (CME) of continental Europe. In the liberal market economies, firms co-ordinate their activities primarily via hierarchies and competitive market arrangements with market relationships characterised by arm's length exchange of goods and services in a context of competition and formal contracting. In co-ordinated market economies there is a greater prevalence of non-market relationships to co-ordinate endeavours with other actors and to construct their core competencies. These non-market modes of co-ordination general entail more extensive relational or incomplete contracting, network monitoring based on the exchange of private information inside networks and more reliance on collaborative relationships.

It is evident from most of the WCA writings that the recommended institutional changes always resemble the institutional framework for most of the liberal market economies (LME) such as Britain and the United States of America. This as well as the links with the previous colonial masters and the main donors has resulted in most of the developing countries in the Poor South (as well as countries that were previously part of the Soviet Union) including Anglo-Phone Africa, imitating the LME or liberal capitalism model. It is, however, debatable whether that model really suits the developmental needs of these countries. (Is this perhaps why lagging countries will never catch-up?). We can make a strong case that if these countries were to adopt the social democratic version of democratic capitalism, their developmental needs would be much better served. This links to the point Kydd (2002) makes that despite the fact that LME institutional framework can be very effective in certain cases it is true that in many cases it would not apply and be relevant in many other countries.

Polanyi (quoted by Boyer, 1997) demonstrates in his classic 1946 work, *The Great Transformation*, that most markets for commodities call for highly sophisticated institutional arrangements for their efficiency and self-adjusting property to be obtained. This again strongly argues the case against liberal market ideologies.

Boyer (1997) argues that there is a need for institutional transition and organizational innovations that will provide a significant but ancillary role to markets, provided they are embedded in a set of social relations providing trust, loyalty and commitment. Without these basic ingredients markets will not be efficient.

Kydd (2002) continues this line of argument and makes a very strong case that the LME institutions are not appropriate for the development of smallholder agriculture in Africa and it would therefore be unlikely that agriculture would perform its pro-poor role. Thus the institutional challenges required by liberalisation measures within the WCA may be 'taking poor farmers down a blind alley'. For poor farmers in Africa the key challenge is to devise institutional arrangements, which are able to reduce transaction costs and also

induce much stronger commitment to investing in needed specific (and co-specific) assets. Kydd therefore argues that the characteristics of poor farmers are such that the liberal capitalistic (LME) institutional framework is unable to solve the very particular co-ordination problems that arise. This notion that the market (central to the liberal ideology) is not always (and especially not in developing countries) the most efficient institutional form for economic co-ordination, is supported by many other scholars (see Hollingsworth and Boyer (1997) for a discussion on this). From this it is concluded that CME-type institutions tend to be more appropriate and needed to develop smallholder agriculture in Africa. Ideally these would be based on deliberative institutions, working horizontally inside a sector and also vertically along the supply chain to ensure a just and fair outcome.

Implications for the agricultural economics paradigm

All these arguments have important implications on how we as agricultural economists get involved in policy prescriptions for the development of agriculture in Africa. It is critical that policy be developed on the basis of an understanding of what are likely to be broad outlines of appropriate institutional arrangements, i.e. arrangements that will be transactions cost reducing and specific asset investment inducing. The question is whether this is enough to make a meaningful difference. The bottom line is that our research on poverty and the agricultural development challenge in Africa needs to be institutionally informed. The challenge is to be able to provide insights on how to design non-standard institutional arrangements, non-market co-ordination and the role of government.

In the final instance it is important that our institutional analysis take cognisance of the fact that the institutions of a country or a region are *embedded* in the culture in which their logic are symbolically grounded, organisationally structured and politically defended. All the different institutions and structures of a country are integrated into a nation's social configuration (influenced by culture, history) to shape the social system of production (Hollingsworth and Boyer, 1997). The argument is this that the way a nation organises its economic activity and how transactions are taking place is a function of culture and society. Thus it is important that we be sensitive to the social context in which transactions are embedded and that we understand the degree to which social bonds exist between transacting actors. Given that there is a large array of institutional arrangements for effectively organising modern societies, the challenge for us in the African context is to find, and understand, the institutional arrangements that will deliver viable economic performances.

4. The Case for New Ideas and New Principles?

In light of changing circumstances in world agriculture and agricultural markets as result of the process of agricultural industrialisation there is the danger that small farmers will be marginalised and excluded from high value markets (Reardon and Barret, 2000). Poor farmers from disadvantaged regions on the continent face a double challenge to enter a very competitive and deregulated domestic market as well as having to deal with the challenges posed by the process of agricultural industrialisation. It is therefore a major challenge in Africa to prevent marginalisation and exclusion of poor farmers and to find ways to link small growers to high value markets.

The only way empowerment of these farmers could take place is to ensure some form of linkage with agribusiness (including traders, market agents and the traditional range of value adding enterprises in the food chain), which will secure market access for them on a sustainable basis.

Some earlier efforts by parastatal development corporations and some agribusinesses to open agricultural markets for poor rural communities are commendable but the challenge is so huge that much more needs to be done. Improving on-farm productivity for increased sales could be one way of stimulating commercial activity and thereby linking them to markets. However our experience with development efforts over the years has clearly shown that this approach is not sufficient because access to markets (and finance) seems to be more important for economic success. Poor developed links with markets (and thus with agribusiness per definition) have reduced incentives in agriculture to such an extent that farmers in many cases have abandoned farming activities. This has been a major problem not only amongst farmers of perishable commodities such as dairy, fruits and vegetables but also amongst grains, oilseeds and beef. The lack of

market access is often attributed to poor infrastructure and communication. But sometimes it is just poor quality or quite often lack of trust that creates the perception that these farmers' products do not comply with the basic minimum requirements in order for it to be sold.

Non-market co-ordination mechanisms

The background and context provided immediately above provides enough justification for the ideas on the changes in thinking with regard to institutional analysis that is required for more appropriate institutional design to solve the problems of smallholders. The implication of looking at institutions that are more non-market orientated requires that we need to take note of a number of aspects that need to become part of our 'tool box' to help us putting these institutional arrangements together.

Given the context and the understanding that the market will not provide a satisfactory outcome we will have many more personal transactions, between big business and small farmers and between different cultures. There would be very few at arms-length transactions. This is partly a function of poor market access but also a function of the change in food markets and the need for stricter co-ordination. So what are the new ideas we need to take note of in order to deal with this challenge?

The new economic sociology and the concept of intersubjectivity

Following on the critique of the *homo economicus* and the atomistic agent provided earlier, it is necessary that we realise that in dealing with the problem of empowerment we work with different agents - non-atomistic and non-homogenous agents. Each agent is shaped and influenced by social, cultural and economic structures and this needs to be analysed and understood. There is a strong interface between the individual and society confirming the point earlier that economic agents are socially embedded. So what we are arguing is that individuals are not acting individually but act socially or as members of a group. Davis (2001) therefore introduces the concept of the socially-embedded agent by showing how individuals and their institutions and social values influence one another. So when different agents with different social values engage in transactions this could provide interesting challenges for the selection of the co-ordinating mechanism to ensure an efficient outcome.

In mainstream economics it is considered that individual actors (or agents) make independent decisions and are uninfluenced by other actors. In sociology other actors influence actors. As economists began to recognise that actors are influenced by other actors as described earlier we see economics infiltrating sociology under the banner of NIE (Richter, 2001). The New Economic Sociology (NES) paradigm was the response from the sociologists to this infiltration. The NES again take onboard the concept of embeddedness discussed earlier by arguing that 'economic action takes place within the networks of social relations that make up the social structure'.

The NES is critical of the naïve construct of the NIE by only focusing on transaction costs. They argue that issue of power, trust, embeddedness, social relationships and networks are much more important – especially in the African context where we have inequality in (economic) power. The NIE, as we mentioned earlier still focus on economic rationality and ignore issues such as fairness, trust or power. If we just look at how business is done today in Africa a lot relies on sociality and friendship or just plain good contacts you have made through related activities, such as the church, society, sport, etc. Getting into the 'social network' is not easy for those not sharing the same society and the same culture and these actors are thus often excluded from business deals. The role of culture in economic behaviour should therefore be more understood.

A number of the concepts from sociology such as power, fairness, social networks, altruism and status can become very useful when we have to analyse and provide solutions to the process of economic empowerment.

Social capital and trust

Social capital is also a term that is borrowed from Sociology and has become of increasing interest to economists (Peterson, Robison and Siles, 1999) to explain choices that are made outside the market and that were previously not addressed by neo-classical economics. Robert Putnam's (1993) work on social capital also falls within this framework, but social capital is also incorporated in transaction cost economics as an important element to cut-down on the costs and uncertainty of market exchange thereby increasing the efficiency of transactions. Social capital refers to social connections or networks, norms and trust, all of which can facilitate co-operation in society and ultimately have effects on economic performance (Putnam, 1993; Ensminger 2000). It is now increasingly being recognised that social connections and networks should be studied to explain economic behaviour and organisation.

Social capital consists of relationships found in social structure that are appropriate for productive use by an actor. Peterson, Robison and Siles, (1999) adopt the definition of Robison, Schmid and Siles (1999): 'social capital is the sympathy or sense of obligation that a person or group receives from another person or group that may produce a potential benefit, advantage, or preferential treatment from that other person or group beyond that which might be expected in a selfish exchange relationship'. Under this notion of social capital, the basis for mutual interest is the sympathy of obligation of one transacting partner for the other. The origin is the social connectedness of the two parties and from self-interest or authority. The potential of social capital is that each partner will forego opportunistic behaviour and thereby lowering transaction costs. Krug and Polos (2000) also argue that the building of social capital is seen as urgent and crucial

investment for new firms where the building of personal relations is more crucial for the survival of a firm than direct access to resources. Here again we emphasise the importance of social networks for successful business and thus successful economic empowerment.

The issue of social capital becomes very important in trying to understand and analyse the many failed empowerment initiatives and failed transactions and linkages between agribusiness and poor farmers in Africa. These initiatives or transactions often performed poorly because of cultural misunderstandings, suspicion, limited attempts to create effective interpersonal relationships, missed opportunities to understand the nuances of communication, friendship and partnership. Or sometimes it is just a general lack of understanding of how business is done.

The concept of social capital therefore gives an underlying rationale to the importance of studying culture and relationships in our empirical work. This is even more true in the multi-cultural context of South African agriculture and also within the context of our historical legacy where mistrust between different groups have been the order of the day.

In terms of the concept of social capital we can argue that trust is the single most important aspect. It is recognised that trust seems essential to commercial transactions that are not fully controlled by either legal constraints of contracts or the economic forces of markets. From the literature it also appears that trust plays an important part in the formation of relationships. There is literature that links trust with transaction costs by arguing that when exchanges take place in an atmosphere of trust, transactions are less costly to complete. There are now many initiatives in Africa from donors, agribusiness and economic consultants to build linkages and to make agricultural commodity markets work for the poor. I would argue that the building of social capital is a crucial prerequisite for success in these efforts.

How do we build social capital? Peterson, Robison and Siles (1999) argue that this can be done through repeated transactions between partners. During the transactions expressions of friendship, common values, common goals and mutual respect would all be appropriate for building social capital. Establishing trust will be the key to building social capital. On the other hand trust is an act that evidences the existence of social capital in a relationship. High trust relationships between partners result in less searching for alternative partners, more commitment, etc.

Direct social capital – mentioned here – takes much time and effort to create due to the fact that a lot of attention should be paid on trust over many personal interactions and many economic transactions. Indirect social capital arises from ones reputation for trusting relationship with others (Peterson, Robison and Siles, 1999).

5. Synthesis: The Case for Cross-Disciplinarity

The above arguments probably presented a number of fairly foreign and probably provocative ideas. My basic point is that if we as agricultural economists want to become useful by making a contribution to the process of agricultural development we need to make some adaptations. First of all we need to urgently start questioning our standard recipes and policy prescriptions for agricultural development, which to my mind is largely based on the British-American philosophy of liberal capitalism. The question is whether this approach to development is relevant and appropriate for our circumstances and for our challenges.

I have also made the case for some important sole searching amongst our profession to show a much greater interest and activity in the two main challenges I have singled out in this paper. Some new values and understanding of the principles of humanity and dignity is urgently needed.

Finally, I have made the case for agricultural economists to focus on the strengths of sociology, anthropology and political analysis in order to be better equipped to tackle the challenge of agricultural development in Africa. The point that was made throughout this paper is that economic theory sacrifices far too much relevance in its pursuit of ever-greater rigour. Given the challenges, we need to see stronger efforts to integrate the building of theory in economics with the study of reality. Here some contributions from the other social sciences could be very helpful (Harriss, 2002).

Harris (2002) and Kanbur (2002) make useful arguments to illustrate how cross-disciplinarity (defined as the analysis and methods of more than one discipline) and the combination of qualitative and quantitative approaches can be used to inform policy on development and poverty alleviation much better. These are the challenges in African agriculture and one can thus make the same case for applications in our profession. Kanbur (2002) warn however that cross-disciplinarity is not easy and there is the danger that we could only pick-up the weaknesses instead of the strengths of each discipline. There are already examples of works applying the principles of cross-disciplinarity or interdisciplinarity. A case in point is Mantzavinos' (2001) book on 'Individuals, Institutions, and Markets' in which he integrates the latest scholarship in economics, sociology, political science, law, and anthropology to offer a theory of how the institutional framework of a society emerges and how markets work within those institutions. These are interesting developments and I look forward to see how we could apply these principles in agricultural economic scholarship in Africa.

6. Conclusion: Implications for Research Methodology and Approaches in Agricultural Economics

In this paper I challenged the theoretical building blocks of agricultural economics and then provide some indication of how the discipline has rectified some of its shortcomings. The introduction of the New Institutional Economics into our discipline has been a major improvement. I have then argued that the challenges facing our profession is so huge that we need think about further adaptation by making more use of other social sciences such as sociology and anthropology. This could help us understand the major complexities of dealing with the challenge of black economic empowerment in agriculture. This will however also be necessary for us to adjust our research paradigm. This argument is well articulated by Doyer and Van Rooyen (2001) when they motivated a research method to study agribusiness supply chains:

' ... the complexity of the business and institutional environments facing business firms in the new global economy extend beyond the scope of neo-classical resource allocation economics and should be augmented by a holistic application of various economic theories from a constructivist paradigm. Conventional agricultural economic analysis is bound by the positivistic inquiry paradigm. This paradigm approaches reality with in a deterministic view where clear and linear assumptions apply'.

Given the challenges I highlighted earlier and the challenge for agricultural economic analysis to capture complex business reality and decisions to explain and predict the institutional and governance structures and optimal resource allocation behaviour of firms, makes the combination of a positivist and constructivist approaches to research quite sensible. The combination of these approaches enables a holistic approach to the research problem. Positivism's strong explanatory and prediction capabilities are combined with the strong understanding and reconstructive capabilities of the constructivist approach. Throughout this process qualitative and quantitative data can be used in combination as we have argued earlier.

Since our research work also needs to focus more on structural and institutional issues it seems quite evident that we have to adopt a more eclectic research approach making much more use of case studies. The skills from the other social sciences will desperately be required here to advance our discipline into previously untreated terrain. This is necessary to make sure we make the important contribution to the most important task of building Africa's Agriculture.

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