Working with the Grain: Farming styles amongst Australian broadacre croppers

by Peter Howden, Frank Vanclay, Deirdre Lemerle and John Kent

Introduction: van der Ploeg's farming styles theory

Farming styles theory of J.D. van der Ploeg represents a promising method for conceiving and understanding diversity in agriculture, even if there are some theoretical contradictions and questions about its practical application and operationalisation (see Vanclay, Mesiti and Howden, preceding paper). The intention of this research was to test the applicability of farming styles theory in the Australian context, as a suitable classification procedure to assist in the targeting of extension of the products of agricultural research - particularly the research of the Cooperative Research Centre for Weed Management Systems (CRCWMS). A major concern of the CRCWMS is the development of resistance of some weed species to commonly used herbicides. By using a farming styles conceptualisation, the weed management strategies of the different styles of farmers might be identified, with possible targeting of extension to encourage the wider adoption of improved weed management to reduce the reliance on agricultural chemicals - at least to prevent the development of resistance.

In this study, focus groups were conducted in the Riverina region of southwest NSW to identify the possible farming styles that may exist in broadacre cropping. By focusing on its practical application in the broadacre cropping context, this paper reflects on the theory of farming styles; discusses problems in the methodology; and addresses some of the key questions about the farming styles concept as raised in the previous paper. We also present a description of the styles that were identified by farmers, and the wordcrafted 'portraits' which will be used in further research.

Methodology

Ten focus groups were conducted within a 200 km radius of Wagga Wagga between March and May 1997. Nine sessions were with farmers, six with farm men, two with farm women, and one mixed. The final group consisted of government and private agronomists and a rural counsellor. Farmer participants were selected by a variety of methods, including contacting the coordinators (usually farmers) of existing Landcare and farm-walk groups. These coordinators contacted and organised participants for the focus groups. Some participants were recruited by contacting farmers in a locality from a list provided by agronomists. Working with existing groups, or with those from a small locality, was considered desirable because it overcame some of the problems of getting farmers together in an agreed location, at an agreed time.

The general focus group methodology was adapted from that developed by Mesiti and Vanclay (1996) for their use amongst grape growers in the Sunraysia district around Mildura (and see Vanclay, Mesiti and Howden, this volume). In the focus groups, a structured participation exercise was used in which farmers were asked to write responses to three questions on to index cards: (1) Describe yourself as a farmer; (2) describe how you differ from other farmers in the area; (3) Describe all the different types of farmers in the area (one type per card). Answers to the third question were 'themed' on a pinboard with farmers asked whether each selected card was the same or different to those already on the board. Each emerging 'style' was discussed and expanded upon by the participants after the themeing process (the focus group process is described at greater length in Howden & Vanclay, 1998; and Howden, forthcoming). In addition to the three general questions, participants were asked about weed management strategies and also how these might vary according to the styles identified. The focus group process was recorded and transcribed.

Focus groups were held in community settings, usually meeting rooms in hotels and sporting clubs, in the evening or afternoon. The formal process lasted about two to three hours, and was followed by informal social discussion with liquid refreshment. This post-session discussion provided the opportunity to gain feedback on how the process worked, and more particularly how the participants related to the process, and to the emergent styles.

Focus group outcomes

There was a general willingness and interest by farmers in being involved.

Farm group organisers had relatively little trouble in assembling participants for focus groups, and there was a high level of acceptance from those farmers contacted individually.

Some early indication of the acceptability of the concept came from the responses of contact farmers, a number of whom asked if a 'range' of types of farmers was required. This indicates acceptance by farmers that there is some obvious diversity present in the farming community. It should be noted that no mention of the ultimate purpose of the focus groups was indicated, with the emphasis instead on the general goal of the research – the need to develop a general picture of the farming community in farmers' own words.

Most groups were able to relate to the concept in a general way, but were unable to identify a wide range of styles. However, in the informal discussions that took place after the formal process, farmers were accepting of the styles that were mentioned as having arisen from other groups. Thus there is an acceptance of the existence of 'styles', but it is clear that farmers are not conscious of their own style, nor do they routinely or systematically classify other farmers in terms of styles.

A problem that emerged in the process was the prevalence of extension language, with adopter categories frequently being mentioned as groups or styles – as occurred in similar research conducted in viticulture (see Mesiti & Vanclay, 1996; and previous paper). The focus group facilitators (Howden and Vanclay) made a special effort to emphasise that what they were after was not necessarily extension categories, but the way farmers thought about other farmers in their own terms.

The issue of the different meanings individuals attach to labels also became important during the focus group process. Farmers were asked to write a name (label) for each style, followed by a brief description of farmers in that style. It was noted on several occasions that differing style descriptions were placed together in the themeing process, based on the group understanding of the meaning of the style label. Inevitably, the themeing process worked at the label level, rather than at the level of the description. Group dynamics, often manifested in such processes, meant. that the individual contributors often did not attempt to point out these irregularities.

Other issues related to the ability of farmers to articulate their understanding. Those who seemed more able to articulate styles appeared to be farm women, and the better educated male farmers. These people also identified 'extension' categories more frequently, possibly because of their greater exposure to extension literature. Generally, farmers became more confident with the styles concept as the focus group process proceeded.

Each group identified a number of styles. Some groups identified as many as 16 discrete styles, while one group identified only eight styles. While the styles identified varied between groups with different styles being identified in each group, there was also a degree of consistency especially in relation to the certain major styles. Some of the styles mentioned were poorly described and not uniformly accepted by all group members. Furthermore, there was some disagreement within groups about how mutually exclusive the styles were, and it was suggested that some contributed cards could belong to a number of the themed styles.

Aggregating the results of all groups revealed in excess of 20 styles, however, the degree of inconsistency in terms of the styles reported, as well as different language (labels and descriptions), made a simple aggregation process difficult. To resolve this, an expert panel was established to theme the results of the focus groups.

Expert panel

The 'expert' panel comprised seven people including the authors of this paper. Panellists possessed a range of expertise including rural sociology (and specifically farming styles theory), agricultural science, education and extension. The purpose of this group was to consider all the styles that had been mentioned by the focus groups, and to conduct a themeing process (similar to that undertaken in the focus groups themselves) to aggregate the identified styles into one comprehensive set. This was done by utilising the same cards (retyped for legibility) that were submitted by the participants in the focus groups, augmented by comments and quotes made in relation to that card during the focus group process.

There were relatively few problems in assigning each card to a style. In a few cases, however, there were differences of opinion among the 'experts' about the 'meaning' of a style or style label. This tended to occur with cards that contained very little description of the style other than the style label, and when labels were highly emotive or pejorative. This highlights that words (labels at least) do not have a consistent meaning across different groups of people.

Farming styles in broadacre cropping

As already suggested, farmers are not conscious of farming styles, although they can relate to the concept and to specific styles when they are raised. Each focus group only identified a few styles, but across all groups a wide range of styles emerged. After deliberation on the outcome of all farmer focus groups, the expert panel identified a total of 27 styles (see Table 1). This large number of styles raises serious questions about exactly what constitutes a style, and how styles can be determined and identified.

In terms of the styles that were identified, there was reasonable consistency across the focus groups about the major styles. According to the focus group participants, the six major styles probably account for about 80 per cent of all farmers. A number of clearly identifiable minor styles also existed, each probably accounting for only a very small percentage of all farmers. A small

number of poorly defined styles also existed. These styles are poorly defined because it would be difficult to distinguish farmers in this style from farmers in other styles. Some of these were only mentioned in passing (in postfocus group discussion), and probably constitute only a very small percentage of farmers.

Farming styles - descriptions

Descriptions were constructed from the styles identified by focus group participants, including the transcribed data from the discussion about the styles that occurred in the focus groups. To some extent they contain the language used by farmers, and are often disparaging of farmers in that style because that is how farmers themselves described many styles. The style descriptions presented may not be coherent and may not be sufficiently clear to uniquely identify a particular farmer. It is important to note that these descriptions are not the styles, nor the description of those styles, that the

Table 1: Farming style labels

Major styles	Minor styles		Poorly defined styles
Innovative Middle of the road Progressive Resource limited – personal Resource limited – structural Traditional	Autocrat Developer Diesel burner Doom and gloom Expansionist Grazing emphasis Hard driver Lazy Lifestyler	 Old rich Opportunist Organic Perfectionist Risk taker Secret farmer Skite Tinkerer 	Committee person Lucky Mediator Safety-net farmer

authors of this paper are advancing as being descriptive of broadacre cropping farmers. These are the words of farmers.

Innovative:

These farmers are at the forefront of agricultural change. They are seen as always looking at the 'big picture' of farming and not afraid to spend money on inputs. They are usually first to take on innovations, often running test strips or trial plots in conjunction with agricultural researchers or extension officers. They are viewed by some farmers as risk takers, although consensus was reached in most groups that farmers in this style take 'calculated' risks, often after consultation with researchers. It was also thought that with the increased risk these farmers take comes a higher rate of 'failure' (often seen as resulting from 'bad advice'). Innovative farmers are regularly involved in trialing some of the newest technological innovations such as GPS/infra red paddock mapping, satellite technology or computer decision support systems, even if the benefits of implementing such technology are long term or even uncertain.

Progressive:

These farmers are similar to the Innovative style in that they are up to date with the latest in farm innovations and plan over a longer period than most farmers. They conduct gross margin analysis, utilise forward contracts, and closely watch commodity markets. Progressive farmers, however, are described as being generally more cautious (or perhaps less risk oriented) than Innovative farmers. They are seen as 'watching' the Innovative farmers and adopting those practices that are suitable to their farming system after they have been 'proven' (in trials, for example). Farmers in this group may

also run their own trials and test plots, but usually only for chemical spray rates, fertilisers, etc, and generally not innovations that require a large capital outlay (such as infra red paddock mapping), and/or those that require a significant change in their current rotation practices. Some view these farmers as the 'best' farmers because they only adopt those practices that are 'proven' or not seen as subject to high risk.

Middle of the road:

Middle of the road (MOR) farmers were variously described as the 'average farmer', 'genuine triers', 'follow along', or 'practical' farmers. They are seen as progressively cautious, and often three to ten years 'behind' in the adoption of significant agricultural innovations. Farming to them is more likely to be a way of life as opposed to a job or a business, and usually there are strong family ties to the land. While some see them as struggling to keep up with changes, others see them as just 'plodding along', but generally contented (in good seasons!). These farmers are also viewed as skilful farmers in terms of agronomic, pastoral or husbandry skills, but lacking in the high level business skills that constitute a Progressive farmer. They generally run mixed enterprises and may more readily take on innovations that do not significantly alter their current farming practices and/or those that have a demonstrable yield benefit. MOR farmers can be torn between past (perhaps inherited) practices and more recent innovations, the likelihood of adoption possibly depending on the influence of neighbouring farmers or those farmers they associate with.

Traditional:

Although generally viewed as being only older age farmers, some younger

farmers also belong in this group usually because they were following their fathers' practices. Described as 'stuck in their ways', 'scared of change', 'old fashioned', or 'living in the past'. most thought that farmers in this style work the land too much, and utilise simple rotations (if any at all). Many focus group participants suggested that these farmers see themselves as having been reasonably successful for many years (and even generations), and therefore they see no need to change. It was also thought that farmers in this group were not able to adapt to recently emerging farming trends such as new weeds or improved pasture management techniques or fertiliser rates.

Resource limited - structural:

These farmers were viewed as 'good' farmers with some financial impediment to their progress, sometimes regarded as 'being dealt a bad hand'. Also called 'battlers' or 'trapped' farmers, it was suggested that the property that these farmers inherited, or own, may no longer be big enough to be viable, and they lack the financial backing to expand. While some suggested that these farmers could be on the way to bankruptcy, most thought that these people were 'survivors' who would always 'make ends meet'. Farmers in this style are limited in the inputs they can afford and perhaps restricted to 'older' farming methods. Based on farmers' descriptions, it is difficult to separate from this group, those lacking the business skills to progress. Many groups spoke about the burden of the huge increase in the amount of information that farmers have to process, and the extra skills that they have to learn. Farmers in this style, though, are not seen as lacking in basic agronomic skills.

Resource limited - personal:

Also described as 'ostrich' farmers. 'useless farmers', 'followers' or 'muddlers', many factors were suggested as indicative of this group, such as: lack of efficiency; lack of vision; lack of decisiveness; and/or lack of timing. Some felt that this group consisted of older, poorly educated, farmers who could not keep pace with change, though most felt that neither youth nor a good education excluded farmers from this group. Generally these farmers are viewed as 'hard workers' who never quite get a grasp of basic agronomic/ husbandry skills or cope with the complex needs of modern farming. One farmer described them as being on an 'exercise bike' (pedalling furiously but getting nowhere). While 'learners' were initially linked with this group, it was felt that learners or young farmers are 'pre-style', and most will eventually develop the necessary skills. Farmers restricted in their farming skills are seen as very slow, or, not able to learn. and perhaps destined for bankruptcy.

Risk taker:

Although this style was described in most groups, there are varying and conflicting definitions of the notion of 'risk'. Farmers in many groups suggested that most/all farmers were risk takers, although after discussion it was agreed that some were 'mad risk takers'. Also described as 'gamblers', it was agreed that these farmers were generally not the 'best' farmers and their success often depended on luck. It was suggested that these farmers would adopt an innovation without adequate research or consultation; try any idea no matter where it came from; put in entire paddocks of a new crop without first trialing it; or perhaps persist/ experiment with an innovation previously rejected by the wider farming community.

Old rich (gentleman farmers, landed gentry, squattocracy):

It was suggested that these farmers were almost remnants of a bygone era. Farming had been in their family for a long time and they are now living on the off-farm investments of their family. Some suggested that their lifestyle does not match their income, and that their fortunes were being eroded under current economic conditions, but this was not a common theme. Generally this style was seen as conservative because they are comfortable; perhaps 'semiretired at 35!'; and often with staff to run their properties. It was also suggested that many farmers in this style have a more conservative approach because there may be no heir on the farm to implement a more progressive strategy. Implicit also in the label 'squattocracy' and perhaps true to a more conservative farming strategy, is the suggestion that these farmers usually run stock and only occasionally crop.

Lifestyler:

'Lifestyler' is a broad label which includes hobby farmers with a 'weekend' farm, part time farmers who work off the farm, and 'city' people who have retired with 'a package'. The common theme defining this style is that the main source of income is (or was) off-farm and therefore there is not an absolute need to profit from farming. The practices of this group can be varied. Hobby farmers were generally seen as adopting the more bizarre practices and commodities (relative to the normal practices for the broadacre cropping area) such as grapes, exotic cattle, mohair and/or Angora goats. Others, perhaps the retirees, were understood as having generally larger properties and less diverse commodities, and perhaps as being more permanent residents on their property. Most in the Lifestyler group

are seen as lacking in basic agronomic skills and experience, and are often seen as being a 'nuisance' because they fail to control weeds or pests. There are also 'boundary issues', such as their animals escaping onto neighbouring farms, and restrictions on neighbouring farmers in terms of chemical use (because of spray drift affecting grapes, etc).

Expansionist:

This style was seen as 'expand at all costs' farmers and were variously called 'corporate' or the 'big acre farmers'. These farmers were described as just waiting to swallow up neighbours and as eroding the 'community' of farming by buying out family farms. One group explained that often the business strategies of this style make it difficult for other farmers to stay on their land because they make offers too big to refuse, or buy out all the neighbouring properties, making staying uncomfortable or difficult. These farms are usually owned by companies or individual off-farm investors, and, although they put on staff to manage their properties, often this is not seen as a replacement for the families lost to the region. Issues of economy of scale were perceived as important, such as being able to afford to improve herds by culling poorer animals, or able to endure bad yields because of the size of their production. On the negative side, it was felt that these farmers place different emphases on certain important agronomic practices, for example, it was suggested that these farmers do not adequately control weeds because of their threshold calculations or the sheer size of the land being managed.

Hard driver (hungry):

This style was described as comprising farmers who pushed their land and/or their stock too hard. Making a profit was seen as their primary objective and the 'size of the wallet' and/or the size of the property as the measure of success for this style, with sustainable land management and good animal husbandry being sacrificed for short term profit. They were also described as 'arrogant' and 'too cunning for their own good', because they were mercenary in their dealings. Like Secret farmers (below), these farmers were accused of not being sharers of information or contributors to the community of farming.

Organic:

Farmers in this group have made a conscious decision not to use chemicals in the production of their crops or animals. While it was suggested that all organic farmers believed the new age bullshit', discussions with organic farmers revealed a diversity of motives. However, it was thought by some focus group participants that some farmers may claim to be organic only to justify not spending money on controlling weeds. The wider intention of this style, though, was to include only those farmers who have taken on true organic production techniques. Not much information on this style came out of the focus groups, aside from a label, as most farmers could only identify one or two organic farmers. Most thought these farms could not be viable.

Grazing emphasis:

Also called the 'shrewd stockman' the common notion behind this style is that these farmers have taken a more conservative approach to farming. Although they own land that is considered good for cropping, they have chosen not to lock themselves into high finance machinery, chemicals and fertilisers. Stock are seen as less affected by the wild fluctuations in the market and environmental conditions which make cropping a more precarious and risky business. Many suggested

that these farmers may have owned their land for a while and are unwilling to go back into debt. It was also suggested that farmers in this group may 'opportunity crop' when grain prices are expected to be high, when they expect a good season producing a bumper crop, or perhaps if they are forced to by continuing low stock prices. It should be noted that growing fodder crops for grazing is not regarded as cropping by farmers in other styles.

Autocrat:

Farmers in this group were identified as being (usually) male Traditional farmers, in absolute control over the business/agronomic decision making on their properties. These farmers feel that they know all there is to know about farming their land and that their heir (always a son or son-in-law) has to earn the right to take control. Some groups suggested that the only way that these farmers' sons will get control is when the Autocrat dies. Anecdotal evidence included that of a 55 year old farmer who still has no say in the running of the farm, and where an 80+ years old father still has an iron hold on the farm chequebook.

Secret farmer:

Farmers in this group are described as always pumping other farmers for information while giving little back. Generally there was agreement that they were successful farmers but not active participants in the 'community' of farming. It was considered that these farmers would go to farm walks and field days where they would stand at the back and absorb information, but would not attend a function where they would have to share information. Although not frequently identified in the focus groups, when raised in post-focus group discussions, this style generated much discussion and mirth. One suggestion was that these farmers were ultracompetitive. Another explanation was that farmers perceived as being Secret were either quite happy keeping to themselves, (perhaps they were introverts), or that they themselves were tired and burnt out from getting no feedback from farmers they dealt with in a previous style.

Diesel burner (machine men):

Although this type was poorly represented in the number of cards contributed, this style was well understood when mentioned at post focus group discussions. Descriptions of this style included that of a farmer always spending time polishing the tractor, and 'pub farmers' boasting in the local hotel about how fast they can plough a paddock. Another group spoke of farmers in this style as 'consumers' who like the idea of sitting in the cab of a new piece of machinery. It was suggested that farmers can become instant Diesel Burners when they buy a new tractor, but the essence of this style is an innate fascination for machinery. Diesel Burners are likely to have a high number of cultivations. These farmers were seen as impulsive in that they would buy a new tractor during a good season without regard to the possibility of a bad season following, and possibly ahead of other more pressing needs on the farm.

Tinkerer (frustrated engineer, gadget guy):

The archetypical story that describes this style is that these farmers 'spend all their time in the shed'. They would rather make a new machine or modify an existing one than buy a new one. One farmer noted that this type of farmer could be very useful in a large family unit where 'he' could be responsible for farm maintenance with others responsible for other aspects of farm management. On their own Tinkerers may not be very efficient. For

example, it was suggested that they spend so much time tinkering that it often impinges on the time they should be spending doing other important farming tasks. Others denied that this was the case, stating that the efficient ones did their maintenance in the off-season. Generally this group is admired for their mechanical skills.

Opportunist:

Not a clearly defined style. One group spoke of a number of properties that rarely, or seemingly never, grew a crop suddenly producing wheat in a recent season. The notion is that these farms persist with stock until the season indicators suggest good grain prices. Others suggested that farmers in this style put in whatever crop was 'fashionable' or likely to fetch a good price whether or not it fitted well into a rotation. It was also suggested these farms may put in a crop if stock prices have been low for a while. The implication, therefore, is that farmers in this style are not long-term planners. There was no suggestion that these people were risk takers in all farm practices, just opportunists in their cropping enterprises.

Perfectionist:

Farmers in this group were seen as being pedantic to the point of letting the completion of minor tasks interfere with the broader needs of farming. For example, they were viewed as often being late putting in crops or harvesting because they are too busy fiddling around perfecting aspects of the running of their enterprise. All their fences have to be in order, their farm neat and tidy, and weeds are sprayed immediately on identification. Specific examples included waiting too long for the 'best' sheep prices or overworking a paddock to get it 'just right'. These farmers have no concept of optimality

and have never considered economic thresholds.

Developer:

Not necessarily a 'farmer' as such, this style usually is a business/company which is playing the property market. Often the land is left sitting until it is sold, or they may have a manager to do rudimentary maintenance and/or run farming activities in the interim. They differ from the Expansionists in that they get their money from the land rather than from the products of the land. Farming practices are secondary to the future sale of the land, and therefore do not have the long term viability of the farm as a concern. These properties are recognised by local farmers, both as a waste of good productive land and as a source of problems such as weeds and pests.

Skite:

Also described as 'liars', 'wankers' and 'blow-hards', there seemed to be two themes in this style: farmers who exaggerate the truth, and farmers who are simply 'loud'. The main theme behind the first group is overstatement of yields/yield potential or boastfulness about other production achievements. The suggestion is that neighbours and other farmers know the actual production abilities of this farmer and are aware of the exaggeration. Anecdotal evidence suggests that, aside from annoying other farmers and getting them 'off-side', farmers in this group are prone to over estimation of their own, or their land's, capabilities (in one case leading to bankruptcy).

Lazy:

The central element of this style was that the farmers comprising this group did not work as hard at farming as other farmers thought they should. Consequently, the farms of those in this

group often exhibited obvious signs of neglect such as fences falling over, too much dead wood, firebreaks not maintained, inadequate control of weeds and rabbits, old erosion gullies that had not been restored. The expert panel assigned many cards to this group suggesting that it was a frequently identified style, but on examination of those cards, it was clear that this grouping contained a collection of themes. In addition to the actual description of laziness, other ideas expressed were pessimism, daydreaming, lack of care, indifference, and being laid back. A more precise definition of this group is difficult because of the emotive nature of the word 'lazy' and various opinions about what constitutes being lazy.

Doom and gloom:

These farmers were seen as constantly complaining about the weather, markets and other aspects of farming. While some suggested that these farmers were blaming markets or the weather for their own inadequacies, others insisted that they were just 'moaners'. The bulk of the cards, though, suggested that the cynical attitude of these farmers manifested itself in actual practices in that these farmers would not spend money on inputs because of their pessimism about the worth of that outlay. Another farmer suggested that these farmers were not 'good' farmers because their attitude 'can get other farmers down.'

Portraits

The pejorative language used by farmers in describing the styles prevents any use of these farmers' descriptions in any process of farmer identification from a list of styles. Instead, portraits must be wordsmithed reflecting the concept embedded in each style. The following

portraits are written in the first person because they are to be presented to farmers on individual cards (without the label!) for farmers to assess their likeness to each portrait. Because the existence of the poorly defined styles is debatable, and because further research in the form of case studies will only take place with a limited number of styles, portraits have not been written for all styles. Portraits were also not written for those styles which embodied a large amount of negative language and seemingly lacked any positive aspects (eg, Doom and gloom, Skite and Lazy).

Innovative:

I like to be at the cutting edge of agricultural change. I am constantly seeking new technical information, and new ideas about ways of doing things. I experiment with these new ideas to find the best way they can be implemented on my farm. Sometimes they do not work out, but experimenting is important to get the best ideas. I maintain close contact with local Agronomists and agricultural resellers and I belong to at least one farm organisation such as AgBureau, Farm 500, Top Crop, etc. I attend most field days and read the latest Agricultural journals and newsletters from New South Wales Agriculture very soon after receiving them. I believe that the technology of farming is growing at a fast pace and if you do not keep up with it you will be left behind.

Progressive:

The modern business of farming requires that you put a lot of effort into running the farm at an optimal level, conducting gross margin analysis, watching the markets, keeping the books up to date, and planning into the future. I keep up with all the latest innovations and regularly seek information from a wide range of sources, including New South Wales

Agriculture, Agronomists, or farming organisations such as the Kondinin Group and Top Crop, or, by attending field days. I will adopt a new practice if there is a demonstrated benefit, but I generally like good evidence that a new product is going to be appropriate for my farm. I like to run my farm at maximum efficiency, but I am careful that the changes I make are appropriate for my farm system.

Middle of the road:

I enjoy farming, even though it can be tough at times. I am good at what I do and feel it is a good lifestyle for my family and I. Other farmers have more modern machinery and spend more money on inputs, but that does not make them better farmers. Being a good farmer means doing the right thing as much as possible, making a living, and providing for your family. Sometimes I would like to make more money out of farming, but I feel that there is no need to place my farm or family at risk by taking unnecessary chances. I run a mixed enterprise, wheat and sheep, and feel that I manage both well. Farming is my life and I cannot see myself ever doing anything else.

Traditional:

Farming has been in the family for a long time. I was born to be a farmer. Farming is in my blood. Sometimes I wonder if some farmers today are moving too fast and are not developing an understanding of their land. There is no substitute for experience and I am wary of outsiders who tell me that there is a better way of doing things and that I should change my practices. They do not know my land. You don't need bigger, newer, tractors, complicated rotations, or fancy crops that require more chemicals, in order to be a good farmer. You need to get the basic things right first and not be afraid of hard work. I know my land from years of

experience and I know how to make my soil produce.

Resource limited - structural:

Farming today is getting more and more complicated and keeping up with all the changes can be difficult and expensive. I would like to be a successful modern farmer, but the increasing cost of farming is making it difficult to keep up. My farm isn't big enough to be viable and much of my equipment is too old. I can't afford to borrow any more money, and I am concerned that I am so much in debt that if I have another bad season, it may be my last. My soil can be difficult to manage, however, I am doing the best I can with what I have. I know I could improve my soil, get better vields and maximise profits, if I wasn't being held back by the current economic climate in agriculture.

Resource limited - personal:

Farming is my life, but somehow I just can't keep up with all the changes that are happening. There is so much information to go through that sometimes it is difficult to make the decisions that are necessary to run a viable farm. Farming is too complicated now. I sometimes feel that I am going backwards even though I work hard. I like farming and I care about the land, but now you have to spend so much time catching up with all the changes that there is less time for doing the important things.

Risk taker:

The only way to make money at farming is to take risks. In order to keep ahead you have to try new and different things. The technology of farming is growing at a fast pace and if you do not keep up with it you will be left behind. Some farmers are scared to take a chance with new ideas, but I like to give them a try. Sometimes I try to make things

work that other farmers have rejected, or that have not been approved of. Persistence can sometimes pay off. Other farmers think that I take too many risks, but, you cannot succeed in this business without taking a few chances or spending some money on inputs.

Old rich:

My family has been farming for a long time and I am considered to be a member of the established farming elite in the area. I feel however, that the golden era of farming has gone. Farming today is more complicated than it was, and you need to know so much more about so many things now. Consequently, it is harder to make as much money. Fortunately, we have investments other than this farm. Even so, it seems that we are eating up our financial reserves. Being a farmer used to be very pleasant especially at farming activities, such as those at the salevards, but today there are fewer opportunities for social interaction. I also find that I don't get the respect I used to.

Expansionist:

In farming, bigger definitely is better. In today's agro-economic climate, small farms are going to the wall because they do not have enough land to be viable. I am continually seeking to expand the size of my farm so that I can spread my risks. In the past, you could get by farming on a small block, but the reality of today's farming is that if you don't get big the increasing cost of inputs will eat up all your profits. I am not going to be left behind.

Hard driver:

The Australian environment is tough, and its variable climate can make profitable farming difficult. You have to push your land hard to make it produce. Successful farmers make money by making the most of their opportunities and getting the maximum profit out of their land and their stock. If you are too cautious and worry too much about every weed or every possible disease your crop or your stock can get, you will never get anything done. In order to make a decent living you have to accept that you can't do everything to look after the land. When there is more money in the future, then things can be put right. Some people will think that I push too hard but it is the only way I can see to keep ahead.

Organic:

Concerns about the effects of farm chemical contamination of our food are increasing. I believe that there are better, more environmentally friendly ways of controlling weed and insect pests. I have made a decision that my farm environment would not be exposed to potential contamination by farm chemicals. Some conventional farmers think I am mad, and sometimes it is difficult to find people who support my way of thinking, but running a chemical free farm is important to me. Perhaps my crops are not always as clean as those of other farmers, but at least I have the satisfaction of knowing that I am doing what is best for the soil and for the people that are consuming its products.

Grazing emphasis:

I like working with stock. Dealing with animals is much more like real farming than driving around on a tractor, especially these modern airconditioned machines. Also, stock is a much less risky enterprise than grain which is more subject to wild fluctuations in markets and the climate. Cropping has also become so much more complicated today and I don't like to be locked into high finance machinery, chemical and fertiliser budgets. While stock prices are

not always high, you can make a reasonable living. Producing prime lambs, beef, or good quality wool can be very satisfying. Anything I do make by cropping is a bonus rather than my core activity.

Autocrat:

To be a good farmer requires a lot of experience. Many young farmers of today think they can just throw money about and be successful, but they have a lot to learn. I want my son/s to be good farmers, but I am not prepared to let them take charge until I am sure that they are capable of running my farm correctly. Many farms today are going to the wall because they have not been managed properly. I know my land from years of hard work and I know how to make my land produce. Farming is not easy, you need to get the basic things right first, and I want my son/s to experience the hard work involved in farming before they take on the considerable responsibility of running a farm.

Secret farmer:

Farming today is a cut-throat competitive business. This means that you should not give your best secrets away. I seek a competitive advantage to maximise my profits and ensure I remain a leading farmer. To do this, I seek a lot of information about markets and farming methods from a number of sources. I attend the field days and farm walks that I think will be valuable but I prefer to listen rather than talk.

Diesel burner:

The modern technology of farming today is making things much easier. You can get around a paddock much faster if you have a good tractor and if you have the best machinery for doing the tasks of farming such as ploughing, planting or spraying. I like driving tractors and I

like keeping my machinery in peak condition. There is not much point in spending money on new varieties and farm improvements if your machinery is not up to scratch. I feel proud of my machinery and when I am sitting in my tractor, I feel that this is what farming is all about.

Tinkerer:

The thing I like most about farming is being in the shed and working with my farm equipment. I keep all my machinery in good condition and I spend a lot of time making sure it is all running at its best. It gives me an enormous thrill to modify and improve my machinery. I'm always welding something. I can make just about anything to do any task required on my farm. I think this is an enormously valuable skill because I have saved a fortune. Why buy new equipment when you can make it yourself or modify what you have to suit the purpose?

Opportunist:

The business of cropping is far too changeable to lock yourself into just producing wheat or canola on a regular basis. I like having a steady income from stock and I don't like to spend huge amounts of money on chemicals, fertilisers and new machinery, if there is not a good chance of a profit. I keep a close watch on the markets and seasonal forecasts and select crops that are likely to make a good price. If the season looks like it is going to be bad, I won't put a crop in at all. I am comfortable concentrating on stock and I don't see why I should go into heavy debt. If you are smart you can make a good dollar watching the markets and making the most of opportunities.

Perfectionist:

I believe in doing everything properly and in having a tidy farm. I put a lot of

effort into making sure that my property is running at its best to the extent that other farmers may think I am a bit. fanatical. But I believe you cannot make a decision about what crop to put in or what sprays to use until you have investigated all the possibilities and ensured that the decision you make is exactly right for your cropping system. I am continually seeking advice from Agronomists about such things as the best rotations, chemicals and spray rates. To get the best prices, your farm has to be very clean. You cannot afford to have contaminated grain or faults in your wool, so I make sure that I control all my weeds and that I don't miss any. I am proud of my farm and work hard to keep it looking at its best.

Discussion

There is considerable disparity between van der Ploeg's notions of farming styles and the way diversity between farmers is conceived by Australian broadacre farmers. There is no evidence that Australian farmers are conscious of their 'style' or the styles of other farmers, thus contradicting van der Ploeg's conceptualisation of styles as ethnotaxonomies (van der Ploeg, 1989: 150; 1994: 29; Leeuwis, 1993: 80, 199 and previous paper). The failure of most focus groups to identify the majority of styles does not mean that the styles do not exist, but it does mean that they are not necessarily apparent to all farmers. Clearly, in this case, the taxonomy is done by the researchers, not the participants, although based on the qualitative data provided by focus group participants. However, it is also clear that farmers do make social judgements about other farmers and can relate to the farming style concept when it is explained to them and/or when examples are given.

There are differences between farmers in the styles they identify, and the words they use to describe those styles. Some labels were used by different farmers to mean completely different things. This indicates that differences between (styles of) farmers may mean that there is not a common language. In fact, this is implicit within the styles concept anyway. At a theoretical level, since a style is possibly a subcultural grouping with its own socially constructed reality, styles potentially could include a stylespecific language. Since the range of styles may reflect class (and education) differences, language differences are likely to be expected. Research methods that rely excessively on the use of 'voice' and do not seek to interpret further what is said, have limited applicability because the words do not have a shared meaning. The full meaning can only be gauged by developing an understanding of the words used within the perspective of that style.

The frequency of identification of styles that approximate extension adopter categories, and the use of words emanating from extension discourse, reveals the hegemonic influence of extension science. Extension science language has pervaded farming discourse to such an extent that some/ many farmers are incapable of identifying their own socially constructed categories of farmers, but see social diversity in agriculture in terms of these adopter categories. Adopter categories, therefore, and extension language in general, have become a legitimate part of the social discourse of farmers.

Because farmers describe other farmers in disparaging terms, the descriptions of styles provided by farmers are greatly affected by social desirability response bias. The portraits that are used have to be constructed or word crafted by the researchers. It is not possible to utilise

farmers' descriptions, however, even when presented as portraits, they still potentially embody considerable social desirability. Not all styles can be easily described as a portrait in a way that meaningfully preserves the differences between styles.

The disagreement within focus groups about the placement of some styles (cards) in the themeing process raises the question of whether styles need be mutually exclusive categories, or whether they exist as dimensions in a multi-dimensional space. Leeuwis (1993) and van der Ploeg would argue that the styles are real, tangible and discretely identifiable. This research would seem to question this, and suggests that styles are more heuristic ideal types that farmers approximate and/or draw on as part of a 'cultural repertoire' (van der Ploeg, 1993) they use to construct - albeit subconsciously - their farm practice (see Howden & Vanclay, 1998).

Conclusion

While there are flaws in the practical application of van der Ploeg's conceptualisation of farming styles, in the Leeuwis methodology, and indeed in our own methodology, we would argue that the concept of farming styles is potentially very useful. Utilising farming styles as a form of social classification would be a more useful typology than other classifications of farmers that are usually made, such as adoption status. As the title of this paper suggests, utilising farming styles to consider social diversity in agriculture is akin to working with the grain (in the carpentry sense), and represents the utilisation of the social constructions that exist (an emic classification), rather than imposing an external structural

approach (an etic classification).
Despite our acceptance of the existence of farming styles – as ideal types – it is our assessment that the concept is not well defined, and that there are serious difficulties in its implementation.

Ultimately we hope to improve the concept and utilise it to practical benefit in understanding the diversity amongst Australian grain growers and the way in which different groups of farmers relate to the research outputs of agricultural science and extension. Potentially, research organisations such as the Cooperative Research Centre for Weed Management Systems could tailor its research and extension programs to work with the different types of farmers to assist in the transition to a more sustainable agriculture.

References

Howden, P. forthcoming (1999?). Working with the grain'. PhD thesis to be submitted to Charles Sturt University.

Howden, P. & F. Vanclay. 1998. 'Mythologisation of farming styles in Australian broadacre cropping'. Paper submitted to Rural Sociology.

Keesing, R.M. 1976. *Cultural* anthropology: A contemporary perspective. New York: Holt, Rinehart and Winston.

Leeuwis, C. 1993. Of computers, myths and modelling: The social construction of diversity, knowledge, information and communication technologies in Dutch horticulture and agricultural extension. Wageningen Studies in Sociology Number 36, Department of Sociology, Wageningen Agricultural University.

Mesiti, L. & F. Vanclay. 1996. Farming styles amongst grape growers of the Sunraysia district'. In G. Lawrence, K. Lyons and S. Momtaz. (eds) *Social change in rural Australia*. Rockhampton: Rural Social and Economic Research Centre, Central Queensland University: 55-63.

van der Ploeg, J.D. 1989. 'Knowledge systems, metaphor and interface: The case of potatoes in the Peruvian highlands'. In N. Long. (ed) Encounters at the interface: A perspective on social discontinuities in rural development. Wageningen Studies in Sociology 27, Wageningen Agricultural University: 145-163.

van der Ploeg, J.D. 1993. 'Rural sociology and the new agrarian question: A perspective from The Netherlands'. *Sociologia Ruralis* 33 (2): 240-260.

van der Ploeg, J.D. 1994. 'Styles of farming: An introductory note on concepts and methodology'. In J.D. van der Ploeg & A. Long. (eds) *Born from within: Practice and perspectives of endogenous rural development.* Assen: van Gorcum: 7-30.

R.M. Keesing (1976: 173), in an introductory anthropology textbook, describes emic and etic thus: 'An emic analysis of behaviour takes an actor's eye view and analyses the stream of events in terms of its internal structure ... [This can be contrasted] with etic analysis, where the observer uses a descriptive notation derived from comparative study and describes the behaviour from this external perspective. (The two are not incompatible, but can be used at different stages for different purposes ...).'

Vanclay, F., L. Mesiti & P. Howden. 1998. 'Styles of farming and farming subcultures: Appropriate concepts for Australian rural sociology?'. In *Rural Society* 8(2): 85-107.

Acknowledgment

We wish to thank all those farmers who were involved in focus groups, and we thank Steve Sutherland (Special Agronomist Weeds) and Luciano Mesiti (PhD Student) for their contribution.

Peter Howden is a PhD student at Charles Sturt University and is sponsored by the Cooperative Research Centre for Weed Management Systems.

Dr Frank Vanclay is an Associate Director and Key Researcher of the Centre for Rural Social Research at Charles Sturt University. He is also affiliated with the Cooperative Research Centre for Viticulture and the Cooperative Research Centre for Weed Management Systems.

Dr Deirdre Lemerle is a Program Leader of the Cooperative Research Centre for Weed Management Systems and is Senior Research Scientist with the Agricultural Research Institute, NSW Agriculture, and a member of the Farrer Centre.

John Kent is a lecturer in agricultural protection in the School of Agriculture at Charles Sturt University, and is an Associate Director of the Farrer Centre. He is a sub-program leader with the Cooperative Research Centre for Weed Management Systems.