



This is the author's version of a work that was accepted for publication:

BERRY, H., BOTTERILL, L., Cockfield, G., & DING, N. (2016). Identifying and measuring agrarian sentiment in regional Australia. *Agriculture and Human Values*, 33(4), 929-941. <https://doi.org/10.1007/s10460-016-9684-5>

This file was downloaded from:

<https://researchprofiles.canberra.edu.au/en/publications/identifying-and-measuring-agrarian-sentiment-in-regional-australi>

©2016 Springer

Notice: This is the authors' peer reviewed version of a work that was accepted for publication in the *Australian Agriculture and Human Values*. The final publication is available at Springer via <http://dx.doi.org/10.1007/s10460-016-9684-5>.

Changes resulting from the publishing process may not be reflected in this document.

Identifying and measuring agrarian sentiment in regional Australia

Helen Berry • Linda Courtenay Botterill • Geoff Cockfield • Ning Ding

Accepted: 9 December 2015

Abstract In common with much of the Western world, agrarianism—valuing farmers and agricultural activity as intrinsically worthwhile, noble, and contributing to the strength of the national character—runs through Australian culture and politics. Agrarian sentiments and attitudes have been identified through empirical research and by inference from analysis of political debate, policy content, and studies of media and popular culture. Empirical studies have, however, been largely confined to the US, with little in the way of recent re-evaluations of, or developments from, early work. This paper reports on research that seeks quantitative empirical evidence for the existence of agrarianism in the Australian community and seeks to identify its core characteristics. Using a purpose-designed sub-set of items within a large, omnibus-style survey of regional and rural Australia, we demonstrate that agrarianism exists as a scientifically quantifiable concept identifiable through responses to four key propositions: that Australians should support policies aimed at improving the position of the agricultural industries; that working in agriculture and associated industries brings out the best in people; that agricultural producers make a major contribution to environmental protection and biodiversity conservation; and that the development of agriculture in Australia contributed to the development of the national character. We found very little variation in the degree to which different demographic groupings agree with agrarianism. Older people, farmers, and non-Indigenous Australian-born respondents were among those who were statistically significantly more likely to agree with the defining propositions of agrarianism, but their scores were only very slightly higher than those of other sub-populations in the sample.

Key words Agrarianism · Australia · Agrarian index ·

Helen Berry, Helen.Berry@canberra.edu.au

Faculty of Health, University of Canberra and The Australian National University, University of Canberra, ACT, 2617

Linda Courtenay Botterill (corresponding author), Linda.Botterill@canberra.edu.au
School of Government and Policy, Institute for Governance and Policy Analysis, University of Canberra, University of Canberra, ACT, 2617

Geoff Cockfield, Geoff.Cockfield@usq.edu.au
School of Commerce, Institute for Agriculture and the Environment, University of Southern Queensland, Toowoomba, Queensland, 4350, Australia

Ning Ding

Faculty of Health, University of Canberra and School of Public Health, China Medical University

Author Biographies

Helen Berry, PhD, is a psychiatric epidemiologist and Professor at the University of Canberra and Adjunct Professor at the ANU Climate Change Institute. She has won over \$6M in research funding, is widely published, and has led influential policy-applied research initiatives. Her personal research focus is on health and wellbeing in the context of climate change, social capital, and complex disadvantage in Australia, Europe, and Asia. She is supported by funding from the NHMRC, ARC, and other awards. Her research career builds on a previous career in public policy and program development

Linda Botterill, PhD, is Professor in Australian Politics and Head of the School of Government and Policy at the University. She is a Fellow of the Academy of the Social Sciences in Australia. Her research interests include the role of values in policy and politics and Australian rural policy.

Geoff Cockfield, PhD, is Professor of Government and Economics at the University of Southern Queensland. His research interests include rural policy, natural resources management policy, and values in public policy.

Ning Ding, PhD, studied and took his doctoral degree in Economics at the Australian National University. He worked on the topic of agrarianism, climate change, social capital, and mental wellbeing in Australia at the University of Canberra and is now working in the School of Public Health, China Medical University.

Acknowledgments

This research was supported under the Australian Research Council's Discovery Projects funding scheme (project number DP140100311).

Introduction

Australia is one of the most urbanized countries in the world and yet there is strong anecdotal and qualitative evidence that, in common with much of the Western world, sentiment and attitudes that can be broadly characterized as agrarian continue to have a powerful hold on the community. Sentiment as used here means feelings with a strong values base that influence attitudes. Politically, Australian agrarianism manifests in the continued existence of an agrarian party, the National Party,¹ which has been in a stable coalition with the larger right of center Liberal Party and its predecessors for almost the entirety of the past 100 years. In spite of the strength of the coalition, the National Party has, at the national level and in most states in which it has a presence, steadfastly resisted amalgamation, maintaining its distinct agrarian identity. Culturally, agrarian sentiment is evident in popular culture and in the close linking in the national

¹ The National Party was established in the Commonwealth Parliament in 1920 as the Country Party. It was known as the National Country Party (1975–1982) and branded as The Nationals from 2003.

self-image between the “bush”² and the ANZAC³ legend (Botterill 2006). Australian television programs continue to romanticize rurality through “reality” shows such as *The farmer wants a wife* (which originated in the UK and has screened in local versions in over 10 countries) and *Jillaroo School*; that all present a picture of rural life that is tough but character-building and rural folk as stoic, practical, and reliable. Over the years, there has been a number of soap operas that have been set in rural towns with stereotypical newcomers from the city being won over by the essential goodness and sense of community of rural folk (e.g., *Country practice*; *Sea change*). These images are reinforced in media reporting, particularly of drought, with the coverage tending to be superficial and to contain a “mythical element” related to the particular hardships faced by farmers (Ward 2005).

The Australian variant of agrarianism has been labeled “countrymindedness,” a term whose origins are uncertain but that has been associated with the National Party since the 1920s (Wear 2009). A set of themes from countrymindedness were proposed by Aitkin (1985), based on his reading of political and cultural material. These were somewhat similar to those identified in US agrarianism by Flinn and Johnson (1974) in their seminal empirical work. Craig and Phillips (1983) adapted Flinn and Johnson’s work to compare the attitudes of South Australian farmers with those in Iowa and Idaho. Cockfield and Botterill (2012) synthesized the ideas from Aitkin, US and European surveys (respectively W.K. Kellogg Foundation 2002; Eurobarometer 2008) and Flinn and Johnson, effectively drawing on three item sets from three culture sets, to create an exploratory survey of attitudes to agricultural industries and practices. Their results (Cockfield and Botterill 2012) suggest that countrymindedness remains strong in Australia across different demographic groupings, party identification, and location and correlates systematically with various attitudes towards agricultural and rural issues.

The present paper reports on a project to deepen this form of analysis by seeking quantitative empirical evidence of an agrarian construct or constructs, with a view to developing an agrarian index that indicates a tendency within individuals to endorse the construct; and then testing the usefulness of that index as a predictor of attitudes to particular issues. This project is

² The bush is the colloquial term for rural areas, especially those inland and away from urban areas.

³ Formally, the “Australian and New Zealand Army Corps,” but refers to the cultural narratives around overseas military engagements, from and especially in, World War I.

part of a broader study of the role of societal values in public policy debates and is the first stage in a comprehensive study of the nature, extent, and implications of agrarian sentiment in contemporary Australia. The output from this study is a core set of statements that aggregate to an index which can be used by researchers, policy-makers, and interest groups to quantify and track agrarian sentiment and its relationship to policy issues. We suggest that, with appropriate adjustment for particular agrarian narratives, this same approach could be used in other countries for similar purposes.

Agrarianism in Australia

Australian agrarianism, or countrymindedness, appears to share many of the characteristics evident across the Western world; it is a set of sentiments, sometimes characterized as a cultural and political myth (see Wear 2009), that dates back centuries and attributes to farmers certain virtues and idealized characteristics that generally place them in a position of moral superiority compared with other people. Montmarquet (1989) tracks agrarianism and its many interpretations from the early classical thinkers, through the French physiocrats and Thomas Jefferson, to Wendell Berry in the 20th century. As the special issue of *Agriculture and Human Values* in 1990 and Montmarquet's (1989) book illustrate, agrarianism has attracted the attention of a number of key intellectuals in the US (including, apart from Jefferson, Ralph Waldo Emerson, and John Dewey). This was also the case in Europe, and J.S. Mill (1893, p 358), for example, argued that small-scale agricultural production was "propitious to the moral virtues of prudence, temperance, and self-control" of the peasantry and that "no existing state ... is on the whole so favorable both to their moral and their physical welfare." The French physiocrats argued that agriculture was both the only true wealth-generating activity and also the basis of the most stable and socially desirable societies (Montmarquet 1989). Unlike in the US and Europe, there has not emerged an Australian philosophical agrarian tradition. Agrarian sympathy is more of the nature of a cultural truism (Maio and Olson 1998; McGuire 1964) that is implicit and subconscious in political culture, rather than a value set that is clearly articulated and acknowledged. Discussions of the importance and worth of agriculture rarely went beyond government-driven marketing efforts aimed initially at encouraging inland settlement and, later,

at expressing solidarity with farmers. Some limited attempts have been made at description and measurement (for example Aitkin 1985; Craig and Phillips 1983; Cockfield and Botterill 2012), but there has been little conceptual development or systematic measurement.

Agrarianism as a concept has the virtue of malleability and has been used by different groups for quite different purposes. Beus and Dunlap (1994) describe it as “multifarious” and Govan (1964) has suggested that the terms “agrarian” and “agrarianism” “carry a penumbra of undefined meaning.” In spite of this malleability, the five tenets of agrarianism identified in the US by Flinn and Johnson (1974, pp189-194) have been widely accepted as the seminal elements of the concept. These are that:

1. *Farming is the basic occupation on which all other economic pursuits depend for raw materials and food;*
2. *Agricultural life is the natural life for man [sic]; therefore, being natural, it is good, while city life is artificial and evil;*
3. *Farming delivers the “complete economic independence of the farmer”;*
4. *The farmer should work hard to demonstrate his [sic] virtue, which is made possible only through an orderly society; and*
5. *Family farms have become indissolubly connected with American democracy.*

Evident in these is the assumption of agriculture as the base of the economy (point 1), the attribution of virtue to rural life (points 2 and 4), some notion of farmers earning and thus deserving their reputation for good character (point 4) and the positive equating of farming, especially family farming, with national traits or aspirations (point 5, and also the second part of point 4).

There are similar themes, with local variations, in Don Aitkin’s (1985, p35) conceptualization of the Australian idea of “countrymindedness.” From Aitkin’s analysis of culture and politics, the tenets are:

- (1) *Australia depends on its primary producers for its high standards of living, for only those who produce a physical good add to a country’s wealth.*

- (2) Therefore all Australians, from city and country alike, should in their own interest support policies aimed at improving the position of the primary industries.
- (3) Farming and grazing, and rural pursuits generally, are virtuous, ennobling and co-operative; they bring out the best in people.
- (4) In contrast, city life is competitive and nasty, as well as parasitical.
- (5) The characteristic Australian is a countryman [sic], and the core elements of the national character come from the struggles of country people to tame their environment and make it productive. City people are much the same the world over.
- (6) For all these reasons, and others like defence, people should be encouraged to settle in the country, not in the city.
- (7) But power resides in the city, where politics is trapped in a sterile debate about classes. There has to be a separate political party for country people to articulate the true voice of the nation.

Compared to Flinn and Johnson's list, this set is more explicitly about political power (point 7) and even includes some policy implications (points 1, 6, and 7), particularly of the need for state support and decentralization, a focus that is perhaps shaped by Aitkin's political science background. Aitkin's conception has largely been taken as the seminal description of countrymindedness, with only Cockfield and Botterill (2012b) attempting some empirical testing. Their work found correlations between responses to statements based on Aitkin and other sources (as above) but did not test to see if or how the individual statements cohered around a single construct, and more importantly, if such a construct could reasonably be described as agrarianism. That is the primary objective and overall purpose of the research reported in this paper.

The second objective, assuming that the construct of agrarianism can be quantitatively identified, is to develop a parsimonious agrarian index from the least number of statements needed to adequately measure the strength and distribution of agrarian sentiment. The third objective is to assess any relationship between scores on the index and a sensible range of demographic and geographic variables. This follows from propositions that the strength of attachment to agrarianism could vary according to location, cultural background, gender, generation, income, and other social variables. It might be expected that those with greater

exposure to Australian rural life and associated activities would be more “country-minded” than those with less exposure, hence the location variable. Those born overseas may, in contrast, lack such exposure, at least to Australian agrarianism, while Indigenous Australians were only partly engaged in Australian rurality, having been effectively excluded from farming, but with some engagement in pastoral industries work (Waterhouse 2005). It has also been noted (and is self-evident from Aitkin’s language) that the Australian construction of rurality has been very masculine (see for example Davidson 2001), hence our interest in investigating gender. Finally, there may be generational differences in agrarian sentiment, given its expected declining influence due to urbanization, cultural change, the reducing economic dependence on agriculture, and the heyday of agricultural settlement becoming an increasingly distant memory (see for example Aitkin 1985; Cockfield 2009b; Duncan and Epps 1992; Wear 2009).

Australian (colonial and then state) governments were long engaged in the establishment of farms from early efforts at self-sufficiency (Shaw 1990), through to the irrigation schemes of the 1960s and even the 1980s. Along the way, there were variable policy goals, including reforming emancipated convicts through agricultural labor (Connors 1970; Ward 1975); counterbalancing the power of the “squattocracy” (the class of large-scale livestock producers) (Roberts 1924); the civilization of the frontier (Johnston 1988; Pike 1962; Waterson 1968); offsetting the effects of the economic depression of the 1890s (Connors 1970); supplying resources to the industrial hub of the British Empire (Schedvin 1988); and managing social unrest after the gold rushes and the First World War (Callaghan and Millington 1956; Connors 1970; Lake 1987; Ward 1975). There were therefore early and very strong policy, political, and economic reasons for promoting the virtues and importance of agriculture. In addition, there was a considerable rural population in colonial Australia, following the demand for pastoral labor, farm settlement schemes and gold rushes. Furthermore, there was strong cultural support for family farming, which in part was a social construct imagined and promoted by city-based writers (Davison 1992). Finally, as Waterhouse (2005) has illustrated, agrarianism has been reinterpreted over time to fit more comfortably with the agrarian yeoman ideal (of small farms). The egalitarianism and collectivism that had characterized narratives of early settlement, with their reliance on itinerant, single male workers and traditions of offering hospitality to sundowners and swagmen, were replaced as the centerpiece of the story by the pioneer family.

The yeoman ideal was, however, tenuous in reality. There were high rates of attrition from many of the government schemes to establish small-scale farmers (Connors 1970; Lake 1987; Pike 1929) and with that, land redistribution by governments became less common, with notable exceptions in what are now the western and northern grain belts up to the early 1970s, along with the development of public irrigation schemes up to the 1980s. The policy focus shifted to supporting existing farmers, notably through extensive post-war (World War II) government programs (Cockfield 2009a; Cockfield and Botterill 2012), but, as in all developed countries with agricultural histories, there has been significant structural change. In 1964–65, the more than 198,000 farm businesses provided 9% of all Australian employment and contributed 63% of exports by value (Australian Bureau of Agricultural and Resource Economics and Sciences 2010). By 2014, however, there were fewer than 129,000 businesses and the proportions of employment and exports were 2.3 and 12% respectively (Australian Bureau of Agricultural and Resource Economics and Sciences 2014). In 1954 almost 22% of the population were classified as living in rural areas (Hugo 2000, Table 2), but by 2012 this was less than 13% (Hugo 2012). By 2012 approximately 64% of the population lived in (state and the national) capital cities and 81% of people lived within 50 km of the coast (Hugo 2012), mostly on the eastern and south-eastern coastal fringes. Any modest population growth in more remote inland areas is largely due to either higher than average reproduction rates in particular Indigenous peoples' communities or from the start-up phase of mining enterprises.

These trends suggest that Australian people would likely be increasingly disconnected from Australian agriculture. Agrarianism remains however, a strong thread in political rhetoric, especially during climatic or political “crises.” During a major drought in the mid 2000s, the then Liberal Prime Minister John Howard (cited in Peatling 2006, p1) speaking of farming and rural towns, stated that “[I]t is part of the psyche of this country, it is part of the essence of Australia to have a rural community.” Referring to the possible loss of farm businesses due to drought, the Prime Minister argued that “[N]ot only would we lose massively from an economic point of view [but] we would lose something of our character. We would lose something of our identification as Australians if we ever allowed the number of farms in our nation to fall below a critical mass.” Similarly, Opposition Leader and later (Liberal) Prime Minister Tony Abbott (2012), in talking to the National Farmers Federation, said:

... Australia's farmers are not just a vital part of our economy. Australia's farmers are a part of our psyche. Farming is part of our soul, not just a part of our economy, as is testified to by the poems of Lawson and Paterson and ballads such as *Waltzing Matilda*. An Australia without a vibrant, dynamic, growing farm sector wouldn't be the country that we all know and love.

This language is not just targeted at the Coalition's rural constituency as agrarian rhetoric, while strongest in the Coalition, runs across the political spectrum. In forging an agreement to govern with the support of independent rural politicians in 2010, the Labor Party's then leaders set out a preamble (Gillard et al 2010, Annex B, p2) that noted that rural Australians "... generate wealth from our natural resources" and "[T]heir labors drive our nation's prosperity," but "... they have not been given their fair share of Australia's successes." Dalecki and Coughenour (1992) have also noted in the American context that "policy makers, organizational leaders, and activists alike who choose to utilize agrarian images in support of particular causes tap a broad public base of potential supporters."

The notion of special roles and particular disadvantages for rural people was, and to some extent still is, manifest in policies of agrarian "exceptionalism" (see for explanation Coleman 1998; Skogstad 1998). Successive Australian governments have, however, increasingly emphasized or at least implied that living in rural areas is a choice, that farming is a business and that rural landscapes are "multi-functional." In international trade negotiations, Australia has criticized the US and, more particularly, the European Union for farm policies that are seen as trade distorting and economically inefficient, so that Australia has chosen the path of deregulation and free markets, partly to try and be a policy leader (Cockfield 2009a; Cockfield and Botterill 2012). Ironically the motivation behind the European policies is much the same agrarian sentiment that motivates sympathy in Australia for farmers in difficulty and which provides the basis for the image cultivated by the National Party in differentiating itself both from its opponents and from its coalition partner.

On the other hand, there are those who argue that agrarianism can persist despite "normalizing" policy, the relative growth of secondary and tertiary industries and urbanization. Stehlik et al. (1996) argue that Australians are

essentially rural creatures transplanted against our will in urban metropolises around the eastern seaboard of the continent. To many of us “the bush” evokes a natural, pristine essentially good place which may be less than the city we live in, but somehow it is still morally our national conscience. We respond emotionally to the ideology of the pioneering spirit, the challenge against the unknown, the concept of “the rural”...

Other forces for the preservation of agrarian sentiment include the importance of the ANZAC legend, with the questionable assumption that Australia’s diggers in World War I came disproportionately from the “bush” (Botterill 2006) and the persistence of agrarian motifs in popular culture. There are the television programs noted above and also a heavy influence in advertising (Finkelstein and Bourke 2001) and sporting events, for example, when Australian athletes dressed in Drizabones⁴ (albeit yellow) at the opening of the Seoul Olympics, and the use of rural iconography in the opening ceremony of the Sydney 2000 Olympic Games.

Our research seeks to address the empirical gap in our understanding of agrarianism by identifying whether it exists in quantifiable, scientifically definable form in the Australian community and, if so, its key characteristics. As an initial step, the research reported here primarily reflects the views of people living in rural and regional Australia (including its large towns). Although the dataset we used includes some participants from medium and large metropolitan centres (including Australian capital cities), the large majority are from small rural towns and rural and remote settlements, including farms. A more detailed survey of the whole Australian population exploring attitudes towards rural Australia across a broader range of locational and demographic categories is underway and will add depth and nuance to our understanding of Australian agrarianism. We note that Flinn and Johnson’s original (1974) survey from which their tenets of agrarianism were derived was exclusively of farmers and used a much smaller sample than that reported in the present paper. As Coughenour and Swanson (2002, p. 104) note of the 1974 study, “the question of whether agrarian images motivated nonfarm Americans was unanswered,” although Flinn did follow up with a later, broader survey with Buttel and found that “there was little difference between the rural and urban subsamples” (1975, p. 148). To begin the task of untangling these issues, we have included a large sample of

⁴ An Australian full length waterproof riding coat

non-farm Australians in this survey, and a small sample of city-dwellers, and will be able to report further on how widespread agrarianism is in this group on conclusion of the larger survey.

Methods

Data were taken from wave 1 (2013) of the *Regional wellbeing survey*, a survey of health, wellbeing, and life in regional, rural, and remote Australia (for details, see <http://www.canberra.edu.au/murray-darling-crn/regional-wellbeing/about-the-survey>).

Participants were a sub-sample of the dataset that included 3,493 respondents who had been randomized into an embedded sub-study on agrarianism. These participants indicated (on a 7-point format) their degree of (dis)agreement with nine statements: “City people understand what life is really like on the land” (abbreviated in tables to: “City understands life on land”); “Rural people are resistant to change” (“Rural people resist change”); “Agriculture is no longer important to the Australian economy” (“Agriculture not important”); “All Australians should support policies aimed at improving the position of the agricultural industries” (“Must support agriculture”); “The family farm is the backbone of rural Australia” (“Family farm rural backbone”); “Agricultural producers make a major contribution to environmental protection and biodiversity conservation” (“Farmers protect environment”); “The development of agriculture in Australia contributed to the development of the national character” (“Farming built national character”); “Australia depends on its primary producers for its high standard of living” (“Farmers create high standard of living”); and “Working in agriculture and associated industries brings out the best in people” (“Farming brings out best in people”). These statements were derived from Flinn and Johnson (1974), Aitkin (1985), and Cockfield and Botterill (2012). Some of the latter were derived, in turn, from the Eurobarometer (2008) and the W.K. Kellogg Foundation study (2002), updated for modern Australian meaning and language. The survey items were pretested in a general community sample of 1,200 respondents before further refinement.

There were very few missing data (at most, 3–5% for any variable, with the exception of household income which had about 10% missing values). To be able to utilize the full sample, missing values were imputed using multiple imputation, a three-step simulation-based method

which: (1) estimates missing values from multivariate linear regression analyses; (2) repeats these calculations 10 times; and (3) to reduce estimation uncertainty, combines the results of the ten calculations to yield a single summary score for each missing item (see Little and Rubin 1987). In preliminary analyses and post hoc sensitivity testing, the dataset with missing values and the imputed dataset produced identical patterns of results (details available from the authors), so the imputed dataset was used in all analyses.

Analytic approach

The first stage of the research was an exploratory factor analysis (maximum likelihood extraction with oblimin rotation) (1) to provide a preliminary indication of whether or not the nine agrarianism statements formed a unitary concept and (2) then to guide the second stage of construction of a confirmatory model. Exploratory factor analysis examines patterns of covariance among variables and shows which of them are highly inter-correlated, “sticking together” to form a coherent theme, or “factor.” We then tested the resulting exploratory factor solution using one-factor congeneric modeling (for methodological details see Berry et al. 2007; Berry and Shipley 2009), an advanced analytic technique that combines exploratory factor analysis, linear regression analysis and error modeling to deliver very accurate results. The robustness of the model is revealed through multiple fit indices (see results below). This form of modeling is used to confirm whether or not an apparently coherent set of items does indeed form a unitary factor, to identify whether or not any items are redundant and to show which items are the most important in defining the factor. A further advantage of this analytic approach is that accurate item weights can be derived from one-factor congeneric model solution; these were generated and used to create a weighted summary score for agrarianism. Bivariate correlations and multivariate linear regression models were then calculated using the agrarianism weighted summary score to describe bivariate and multivariate associations respectively between agrarianism and the following demographic and socioeconomic factors: gender, birth generation (e.g., “Baby Boomers”), cultural background, educational attainment, household structure (e.g., living alone), annual household income, employment status, and housing tenure.

An additional robustness check was conducted using Bayesian estimation methods that allowed us to relax the assumption that the responses to all the nine statements were normally distributed (which they were not). This made very slight changes to our estimates but, because it did not substantively modify our conclusions and because this approach is complex and infrequently used, it was not further used (details available from the authors). One-factor congeneric modeling was undertaken using SPSS Amos version 21 and all other analyses were conducted using Stata version 13.0.

Results

In the first stage, the exploratory factor analysis produced two factors, the first of which contained five items that reflected country-minded attitudes. The remaining four items either described negative attitudes towards rural people or were city-focused, and are thus statistically and substantively redundant to capturing the core concept of agrarianism. This result suggested that the following items from the first factor could be sufficient and appropriate to measure agrarianism: *must support agriculture; farming brings out best in people; family farm rural backbone; farmers protect environment; and farming built national character*. We tested this proposition in a second stage by attempting to fit a single one-factor congeneric model using all nine items (see Figure 1a); as expected, even with extensive model modification (see Berry and Shipley 2009), the model did not fit the data (Table 1). The regression weights of three items (*city understands life on land; rural people resist change; and agriculture not important*), while statistically significant, were very small and of negligible importance. As these items were also missing from the agrarianism factor produced by the exploratory factor model, they were deleted, one by one, with the model fit comprehensively re-evaluated between each deletion. The model improved substantially with these item deletions but still did not fit the data well. Among the remaining six variables, significant but relatively low regression weights for two items (*farmers create high standard of living and family farm rural backbone*) and their very strong correlations with the other four items indicated possible collinearity (excessive correlation), suggesting that these two items might be redundant. The exclusion of these two items, one by one, delivered a strong and parsimonious (one less item than suggested by the exploratory

analysis) final model containing four items that fit the data very well: *must support agriculture*; *farming brings out best in people*; *farmers protect environment*; and *farming built national character* (Figure 1b and Table 1).

<INSERT FIGURE ONE AND TABLE ONE ABOUT HERE>

We calculated the item weights for these four items from the final fitted one-factor congeneric model and used them to calculate a weighted summary score for agrarianism (the weights were: *must support agriculture*=47.74; *farmers protect environment*=19.10; *farming built national character*=19.10; and *farming brings out best in people*=14.06). Because the individual item weights are arbitrary numbers and not intuitively meaningful, we transformed the final weighted scores to a 1–10 scale in which higher scores indicated greater country-mindedness, i.e., stronger agreement with the tenets of agrarianism. We then calculated mean scores and standard deviations for agrarianism and compared these scores across a number of socio-demographic groupings (Table 2). Compared to other respondents, men, older generations, Australian-born non-Indigenous people, those with the lowest categories of income and educational attainment, those not in the labor force, those without children (couples and singles) and those owning (or buying) their own home returned higher scores on agrarianism and were, therefore, more country-minded than other survey participants.

<INSERT TABLE TWO ABOUT HERE>

Although these direct between-groups comparisons were informative, they did not take account of multivariate relationships that could confuse the results (e.g., home-owners are likely to be older than renters; those not in the labor force are likely to have lower incomes, and so on; and these variables co-vary systematically). To account for this likely overlap and to isolate the most important predictors of agrarianism, we deployed multivariate linear regression analyses in which we regressed all the socio-demographic variables simultaneously on agrarianism (Table 3). Taken together, older birth generation, non-Indigenous Australian-born cultural background, lower educational attainment and renting/other housing status were independently significantly associated with greater agrarianism. That is, allowing for their overlap with each other and with

all the other variables, these four variables each made a unique contribution to explaining people's degree of country-mindedness. In combination, they explained 4% of this variance in agrarianism.

<INSERT TABLE 3 ABOUT HERE>

Discussion

This survey confirms the conclusions drawn from earlier work that a form of agrarianism or country-mindedness exists in Australia as a measurable value set that can be precisely defined. We know this because we can fit a single one-factor congeneric model (OFCM) that has four coherent, internally substantively consistent items and the statistical model fit is very strong. Our analysis suggests that agrarianism is primarily about farmers and farming; it is therefore a very traditional form of the idea with its focus on agricultural activity and those who engage in it. It has, as expected, a moral component in that it includes the notion that working in agriculture and associated industries brings out the best in people; but it also has, perhaps surprisingly, an environmental component in that modern Australian agrarianism includes seeing farmers as making a major contribution to environmental protection and biodiversity conservation. This may distinguish Australian country-mindedness from what Wunderlich (2000) describes as "new agrarianism" that has "faced the reality that agriculture is not always friendly with nature." It may also extend the moral component of modern Australian agrarianism to include farmers caring responsibly for the land. However, by far the strongest component of the modern evolution of the concept is the idea that farmers and agriculture must be supported, perhaps a reflection of the broadening of the idea that farmers are morally good: not only does agriculture bring out the best in people; it makes them responsible caretakers of the land. There could also be a fairness aspect, with government policy recognizing the sacrifice and contribution of farmers and perhaps even a concern about food security, with support for farmers ensuring supply. Such speculations require further examination however.

The participants in the present study showed clear support for the idea that the development of agriculture contributed to the development of the Australian national character

and they supported policies to improve the position of the agricultural industries. This strong affirmation of traditional agrarianism is perhaps surprising in a modern setting. Molnar and Wu (1989) concluded from their study of agrarian attitudes in the US that, over time, some social groups and cohorts would be at an increasing social and physical distance from agriculture, likely leading to an overall reduction in support for favorable (to farmers) government intervention. Perhaps somewhat against Molnar and Wu's expectations, agricultural support in the US is relatively generous, at least compared to the relatively rapid and extensive deregulation of support in Australia, second only in scope and speed to that in New Zealand. Given Australia's high level of urbanization (more than 75% of Australians live in its 20 largest cities (Australia. Department of Infrastructure and Regional Development 2015) and reduction of support to agriculture (with little direct opposition other than from some, but certainly not all, farm groups), we expected to see a tougher, less indulgent approach to farmers (something to be investigated across the general Australian population in future data collections). Our present finding at least questions that conclusion: agrarian sentiment seems to be relatively strong, *particularly* the view that "all Australians should support policies aimed at improving the position of the agricultural industries." It may be that agrarianism was even stronger in the 1960s than it is now, but there are no comparable measures from that time. Alternatively, perhaps the persistent agrarianism of the policy elites, at least in public, has more influence on the public psyche than does the underlying policy direction; or alternatively a shift in public attitudes may require *both* changed policy content *and* unambiguously matching rhetoric. Whatever the explanation, it is especially telling that support for increased assistance to agriculture is (statistically) the dominant one of the four defining features of agrarianism.

Having identified the existence of a meaningful and coherent set of agrarian beliefs, we can also claim that people-in-general in rural and regional Australia identify with these ideas, as do the many sub-populations that comprise the whole, all of which reported high mean scores for agrarianism, i.e., people know (if not consciously) what agrarianism is and they agree with it. Among the groups we tested, some are more country-minded than others, for example, males, older people, those with lower levels of formal education, Australian-born, non-Indigenous people, and those with low incomes. These differences are highly statistically significant (meaning that there is almost no chance that they are due to error) but they are very small and *substantively trivial*. Elements of the socio-demographic patterning that we found are consistent

with Flinn and Johnson's (1974) conclusions about agrarianism among their sample of Wisconsin farmers. They concluded that

agrarianism was high among farm operators who were relatively (1) older; (2) less educated; (3) low income earners; (4) owners; (5) long-time farmers; (6) small farm operators; (7) debt free; (8) seldom in contact with the extension agent or other agricultural college specialists; and (9) negative toward collective bargaining.

Although we did not collect views on point 9, it is worth noting that opposition to collective bargaining, particularly on the part of trade unions, is an important part of the policy approach of the National Party and antipathy between farmers and trade unions in Australia has a long history dating back to the shearers' strike of the 1890s. On the other hand, some of the most extensive systems of farm support in Australia were undertaken through collective marketing arrangements, some of which involved the compulsory acquisition of produce such as wheat, sugar and dairy products.

There are a number of areas that could be, and will be, further investigated. First, this is a regional sample and the work needs to be further extended to urban areas to test more fully for locational differences. Second, it would be desirable, though not easy, to test the closeness of respondents' connection to and identification with agriculture. For example, people connected to farming could include current farmers, those from farming families and those in rural towns who were on farms or have close connections to farms. At the other end of the spectrum are categories of disconnection from agriculture (for example, people who have never been on a farm or who are highly identified with city life) that should be tested to establish whether there is a "farming identity" gradient in agrarianism. Third, it is important to capture data regularly and over long periods of time to test for four potentially confounding components of the passing of time: the gradual evolution of the concept of agrarianism in Australian society (to further examine the decline of country-mindedness thesis); any impact of major relevant events (such as the world wars, publicized portrayals of poor animal welfare, both on-farm and further along the supply chain, and droughts that frequently affect parts or much of Australia and the world); developmental change within individuals as they age (perhaps, as people age, they become more country-minded); and inter-generational differences, in which the common experiences that are

unique to particular cohorts, such as the “Baby Boomers,” shape attitudes characteristic of their generation alone. Sentiment may vary according to each of these conditions. Desirably, studies would include a set of unchanging core items as well as adding new items to capture shifts in attitudes as time passes.

Finally, and unrelated to historical events and the passing of time, there is a need to better understand the values that underpin agrarianism and its impact on decision-making (such as voting), as well as rural people’s wellbeing. Though we found significant differences in levels of countrymindedness between various socio-demographic sub-populations, these overall sub-population differences had little power to predict why some individuals were more country-minded than others: countrymindedness has little to do with age, gender, education, income, and housing tenure. We must look to other explanations, perhaps to possible psychological or locational foundations of agrarianism, to understand countrymindedness. These could be tested through an examination of value orientations, general political attitudes and attitudes to cities and city life in the context of where people live. The present findings, from a large sample of mainly regional Australians, form an important base for needed future studies: countrymindedness is a real and coherent concept; it is validly and accurately measured in surveys; it is alive and well in regional Australia; and it has little to do with people’s socio-demographic characteristics.

As noted at the beginning of this paper, qualitative analysis suggests that countrymindedness in Australia is closely related to agrarian sentiments evident across Western-style cultures, though the expression of particular details is necessarily nuanced for cultural considerations. In light of this and given the origins of our survey items in similar studies in the US and Europe, there is clear scope to test this construct beyond Australia to investigate whether our findings are particular to Australia or are more broadly applicable. One area worthy of further investigation is whether the favorable view of farmers’ sustainable management of the land holds in wider, international samples. Were similar items to reveal similar constructs in other cultural and political settings, this would provide an opportunity for comparative research similar to the kinds of analyses conducted in the World Values Survey and the European Values Survey.

References

- Abbott, the Hon. Tony 2012. Transcript of the Hon. Tony Abbott MHR Address to National Farmers' Federation National Conference 2012, Canberra: National Farmers Federation.
- Aitkin, D. 1985. "Countrymindedness": the spread of an idea. *Australian Cultural History*: 34–41.
- Australia. Department of Infrastructure and Regional Development 2015. *State of Australian cities 2014–2015: progress in Australian regions*. Canberra: Australian Government.
- Australian Bureau of Agricultural and Resource Economics and Sciences 2014. *Australian commodity statistics 2014*. Canberra: Australian Bureau of Agricultural and Resource Economics and Sciences.
- Australian Bureau of Agricultural and Resource Economics and Sciences 2010. *Australian commodity statistics 2010*. Canberra: Australian Bureau of Agricultural and Resource Economics and Sciences.
- Berry, H.L., B. Rodgers, and K.B.G. Dear 2007. Preliminary development and validation of an Australian Community Participation Questionnaire: types of participation and associations with distress in an Australian coastal region. *Social Science & Medicine* 64 (8): 1719–1737.
- Berry, H.L., and M. Shipley 2009. Longing to belong: social capital and mental health in an Australian coastal community. Social Policy Research Paper 39. Canberra: Commonwealth of Australia.
- Beus, C.E, and R.E. Dunlap 1994. Endorsement of agrarian ideology and adherence to agricultural paradigms. *Rural Sociology* 59: 462–484.
- Botterill, L.C. 2006. Soap operas, cenotaphs, and sacred cows: countrymindedness and rural policy debate in Australia. *Public Policy* 1: 23–36.
- Buttel, F.H., and W.L. Flinn 1975. Sources and consequences of agrarian values in American society. *Rural Sociology* 40: 134–151.
- Callaghan, A., and T.A. Millington 1956. *The wheat industry in Australia*. Melbourne: Angus and Robertson.
- Cockfield, G. 2009a. Remembering agrarian collectivism. In *The National Party: prospects for the great survivors*, ed. L.C. Botterill and G. Cockfield, 116–136. Crows Nest: Allen & Unwin.

- Cockfield, G. 2009b. A rural party in an urban nation. In *The National Party: prospects for the great survivors*, ed. L.C. Botterill and G. Cockfield, 42–80. Crows Nest: Allen & Unwin.
- Cockfield, G., and L.C. Botterill 2012. Signs of countrymindedness: a survey of attitudes to rural industries and people. *Australian Journal of Political Science* 47: 609–622.
- Coleman, W. 1998. From protected development to market liberalism: paradigm change in agriculture. *Journal of European Public Policy* 5: 632–651.
- Connors, T. 1970. Closer settlement schemes. *Australian Quarterly* 42: 72–85.
- Coughenour, C.M, and L.E. Swanson 2002. The agrarian mosaic in American society. In *The social risks of agriculture: Americans speak out on food, farming, and the environment*, ed. R.C. Wimberley, C.K. Harris, J.J. Molnar, and T.J. Tomazic, 103–116. Westport, Connecticut: Praegar.
- Craig, R.A., and K.J. Phillips 1983. Agrarian ideology in Australia and the United States. *Rural Sociology* 48: 409–420.
- Dalecki, M.G., and C.M. Coughenour 1992. Agrarianism in American society. *Rural Sociology* 57: 48–64.
- Davidson, A.P. 2001. Farming women and the masculinisation of farming practices. In *Rurality bites: the social and environmental transformation of rural Australia*, ed. S. Lockie and L. Bourke, 204–231. Annandale, NSW: Pluto Press.
- Davison, G. 1992. Sydney and the bush: an urban context for the Australian legend. In *Intruders in the bush*, ed. J. Carroll, 109–130. Melbourne: Oxford University Press.
- Duncan, C.J., and W.R. Epps 1992. The demise of “countrymindedness”: new players or changing values in Australian rural politics. *Political Geography* 11: 430–448.
- Eurobarometer 2008. Europeans, agriculture, and the Common Agricultural Policy 2007. In *Europeans, agriculture, and the Common Agricultural Policy 2007, Special Eurobarometer 294/ Wave 68.2*: European Commission.
- Finkelstein, J., and L. Bourke 2001. The rural as urban myth: snack foods and country life. In *Rurality bites: the social and environmental transformation of rural Australia*, ed. S. Lockie and L. Bourke, 45–51. Annandale: Pluto Press.
- Flinn, W.L., and D.E. Johnson 1974. Agrarianism among Wisconsin farmers. *Rural Sociology* 39: 187–204.

- Gillard, The Hon. Julia, The Hon. Wayne Swan, The Hon. Tony Windsor, and The Hon. Rob Oakeshott 2010. *The Australian Labor Party & the Independent Members (Mr. Tony Windsor and Mr Rob Oakshott) ("the Parties")*: Agreement. Canberra: Australian Labor Party.
- Govan, T.P. 1964. Agrarian and agrarianism: a study in the use and abuse of words. *The Journal of Southern History* 30: 35–47.
- Hugo, G. 2012. Population distribution, migration, and climate change in Australia: an exploration. ACCARNSI Discussion Paper: Node 2 Urban management, transport, and social inclusion. National Climate Change Adaptation Research Facility.
- Hugo, G. 2000. What is happening in rural and regional populations? First National Conference on the Future of Australia's Country Towns. Bendigo: The Regional Institute Ltd.
- Johnston, W. 1988. *A documentary history of Queensland*. St Lucia: University of Queensland Press.
- Lake, M. 1987. *The limits of hope: soldier settlement in Victoria 1915–1938*. Melbourne: Oxford University Press.
- Maio, G.R., and J.M. Olson 1998. Values as truisms: evidence and implications. *Journal of Personality and Social Psychology* 74: 294–311.
- McGuire, W.J. 1964. Inducing resistance to persuasion: some contemporary approaches. In *Advances in experimental social psychology*, ed. L. Berkowitz, 191–229. New York: Academic.
- Mill, J.S. 1893. *Principles of political economy*. New York: D. Appleton and Company.
- Molnar, J.J., and L.S. Wu 1989. Agrarianism, family farming, and support for state intervention in agriculture. *Rural Sociology* 54: 227–245.
- Montmarquet, J.A. 1989. *The idea of agrarianism*. Moscow, Idaho: University of Idaho Press.
- Peatling, S. 2006. I'll never shut failing farms, Howard vows. *Sydney Morning Herald*, 17 October.
- Pike, D. 1962. The smallholder's place in the Australian tradition. *Tasmanian Historical Research Association, Papers and Proceedings* 10: 28–33.
- Pike, Mr. Justice 1929. Report on losses due to soldier settlement. Commonwealth Parliamentary Papers. Canberra.

- Roberts, S. 1924. *History of Australian land settlement (1788–1920)*. Melbourne: Macmillan and Co.
- Schedvin, C.B. 1988. *Australia and the Great Depression*. South Melbourne: Sydney University Press.
- Shaw, A. 1990. Colonial settlement 1788–1945. In *Agriculture in the Australian economy*, ed. D. Williams, 1–18. Sydney: Sydney University Press.
- Skogstad, G. 1998. Ideas, paradigms and institutions: agricultural exceptionalism in the European Union and the United States. *Governance* 11: 463–490.
- Stehlik, D., H. Bulis, I. Gray, and G. Lawrence 1996. Rural families and the impact of the drought of the 1990s. Australian Family Research Conference: Family Research: Pathways to Policy. Brisbane.
- W.K. Kellogg Foundation 2002. Perceptions of rural America. <http://www.wkkf.org/resource-directory/resource/2002/12/perceptions-of-rural-america>
- Ward, I. 2005. Drought, news media, and policy debate In *From disaster response to risk management: Australia's national drought policy*, ed. L.C. Botterill and D.A. Wilhite, 85–97. Dordrecht, The Netherlands: Springer.
- Ward, R. 1975. *Australia: a short history*. Sydney: Ure Smith.
- Waterhouse, R. 2005. *The vision splendid: a social and cultural history of rural Australia*. Fremantle: Curtin University Books.
- Waterson, D. 1968. *Squatter, selector, and storekeeper*. Sydney: Sydney University.
- Wear, R 2009. Country-mindedness and the Nationals. In *The National Party: prospects for the great survivors*, ed. L.C. Botterill and G. Cockfield, 81–99. Crows Nest: Allen & Unwin.
- Wunderlich, G. 2000. Hues of American agrarianism. *Agriculture and Human Values* 17: 191–197.

Table 1. Summary of fit indices for one-factor congeneric models comparing the hypothetical model and the fitted model for agrarianism in Australia (N=3,493)

Selected fit indices (absolute, then incremental)	Acceptable values	Hypothetical model		Fitted model	
		Sample statistic	Meets criterion	Sample statistic	Meets criterion
CMIN (Chi-squared)	p>.05	0.00	X	0.16	✓
CMIN/DF (Normed Chi- squared)	1 to 2	15.58	X	1.83	✓
RMSEA (Root mean square error of approximation)	<.05-.08	0.07	✓	0.02	✓
RMR (Root mean square residual)	<.05	0.17	X	0.02	✓
GFI (Goodness-of-fit indicator)	>.90	0.95	✓	1.00	✓
AGFI (Adjusted goodness-of-fit indicator)	>.90	0.92	✓	1.00	✓
TLI (Rho2/Tucker Lewis Index)	>.90	0.59	X	0.99	✓
CFI (Comparative fit index)	>.95	0.70	X	1.00	✓
NFI (Normed fit index)	>.90	0.68	X	0.99	✓

Table 2. Summary statistics and mean scores of agrarianism (and standard deviations) by various demographic and socioeconomic characteristics in Australia (N=3,493)

Variables	n	(%)	Mean score	(S.D.)	F-statistic	p-value
Gender					4.01	0.04
Male	1415	(40.51)	8.06	(1.56)		
Female	2078	(59.49)	7.95	(1.60)		
Birth generation					29.03	<0.001
Long Civic Generation (1926–1945)	553	(15.82)	8.32	(1.52)		
Baby Boomers (1946–1965)	1710	(48.95)	8.08	(1.56)		
Generation X, Y and i (1966–2005)	1230	(35.23)	7.74	(1.61)		
Cultural background					11.44	<0.001
Indigenous Australian	65	(1.86)	7.47	(2.07)		
Australian born (non-Indigenous)	2982	(85.38)	8.05	(1.56)		
Born overseas	446	(12.76)	7.73	(1.59)		
Highest education level					40.77	<0.001
None or part high school	1138	(32.59)	8.28	(1.51)		
Completed high school	861	(24.65)	8.08	(1.50)		
Diploma, university, higher degree	1494	(42.77)	7.73	(1.64)		
Household structure					4.64	0.001
A couple without co-residing children	1580	(45.22)	8.07	(1.53)		
A couple with co-residing children	818	(23.40)	7.89	(1.59)		
Single parent	113	(3.25)	7.63	(1.73)		
Living alone	605	(17.33)	8.11	(1.61)		
Other	377	(10.79)	7.86			

				(1.66)		
Household income					5.08	0.002
\$31,199 or less	721	(20.64)	8.19			
				(1.56)		
\$31,200 – 77,999	1138	(32.57)	7.99			
				(1.57)		
\$78,000 – 102,999	842	(24.09)	7.88			
				(1.55)		
\$103,000 or more	793	(22.70)	7.96			
				(1.64)		
Labor force participation status					6.44	<0.00
						1
Employed	2067	(59.18)	7.92			
				(1.58)		
Unemployed	67	(1.90)	7.66			
				(1.64)		
Not in labor force	868	(24.85)	8.11			
				(1.56)		
Other	491	(14.07)	8.19			
				(1.55)		
Current housing					11.72	<0.00
						1
Renting	512	(14.66)	7.38			
				(1.65)		
Own home with a mortgage	1233	(35.30)	7.92			
				(1.55)		
Owning own home outright	1505	(43.10)	8.15			
				(1.56)		
Other	243	(6.94)	8.11			
				(1.62)		

Table 3. Multivariate associations between agrarianism score and demographic and socioeconomic characteristics (N=3,493)

Variables	B	S.E. B	β	P-value
Male	-0.05	(0.06)	-0.02	0.39
Birth generation (Ref.= Long Civic Generation)				
Baby Boomers	-0.18**	(0.09)	-0.06**	0.04
Generation X, Y and i	-0.44***	(0.12)	-0.13***	<0.001
Cultural background (Ref.= Indigenous Australian)				
Australian born (non-Indigenous)	0.53***	(0.20)	0.12***	0.008
Born overseas	0.24	(0.21)	0.05	0.27
Highest education level (Ref.= None or part high school)				
Complete high school	-0.12	(0.07)	-0.03	0.11
Diploma, university, higher degree	-0.44***	(0.07)	-0.14***	<0.001
Household structure (Ref.= A couple without co-residing children)				
A couple with co-residing children	0.07	(0.08)	0.02	0.38
Single parent	-0.16	(0.16)	-0.02	0.32
Living alone	0.08	(0.08)	0.02	0.28
Other	-0.11	(0.10)	-0.02	0.27
Household income (Ref.= \$31,199 or less)				
\$31,200 – 77,999	-0.08	(0.08)	-0.02	0.32
\$78,000 – 102,999	-0.11	(0.09)	-0.03	0.24
\$103,000 or more	-0.06	(0.09)	-0.02	0.47
Employment status (Ref.= employed)				
Unemployed	-0.29	(0.20)	-0.02	0.15
Not in the labor force	-0.06	(0.08)	-0.02	0.46
Other	0.11	(0.08)	0.02	0.20
Current housing (Ref.=renting)				
Having a house with a mortgage	0.23**	(0.09)	0.07**	0.01
Owning at least a house outright	0.27***	(0.09)	0.09***	0.003
Other	0.43***	(0.13)	0.07***	0.001
Constant	7.83***	(0.23)	0	<0.001
Adjusted R ²	0.04			

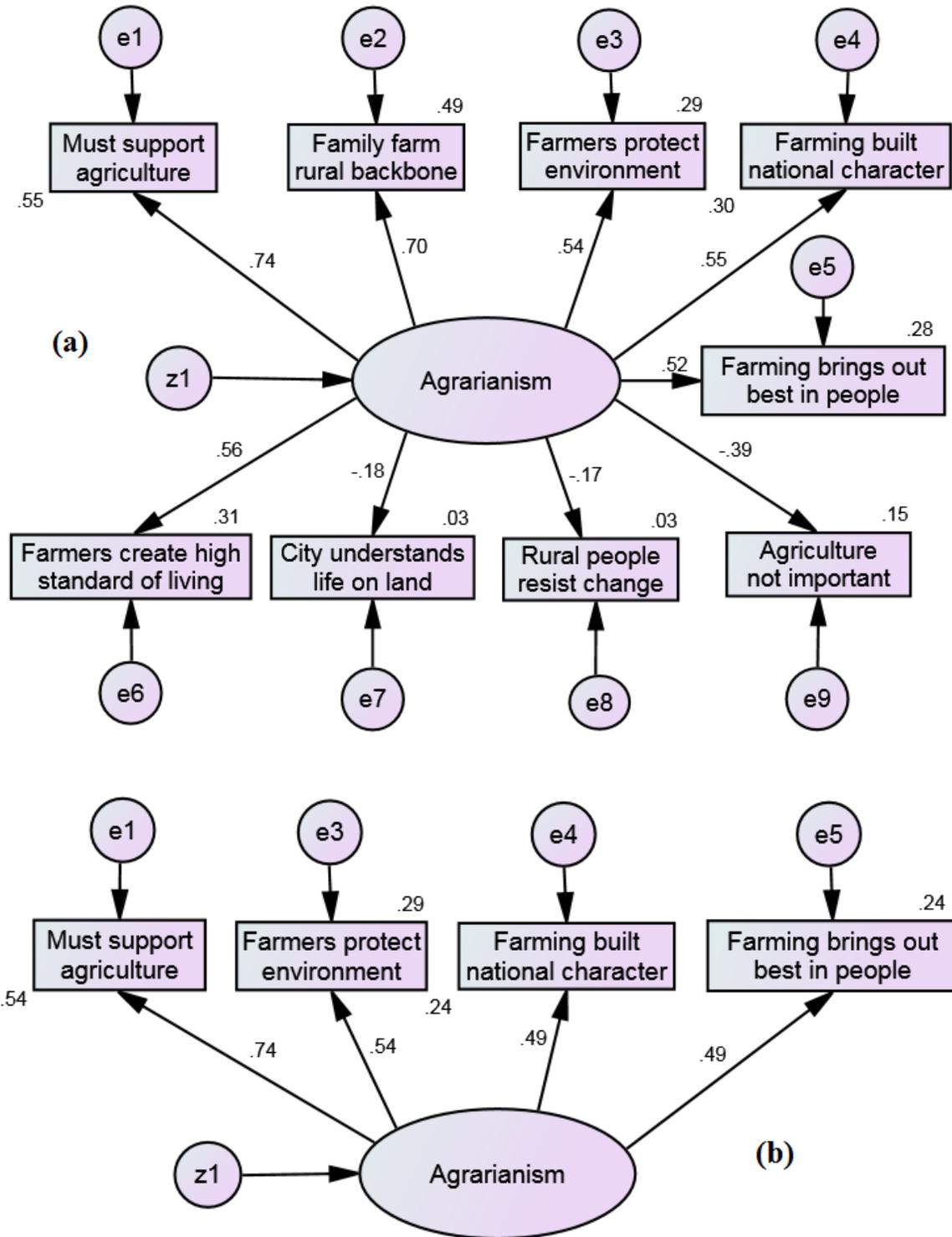


Figure 1 (a) and (b). Hypothetical (a) and fitted (b) one-factor congeneric model of agrarianism