Feature Article

Public animal welfare discussions and outlooks in Australia

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Implications

- Although most countries use animals as companions, for production and for sport and entertainment, the scale and variety of animals in Australia is unparalleled.
- Community attitudes to livestock animal welfare can impact on how Governments either react to publicized "animal welfare events" or regulate management practices in industry.
- There has been a trend for community behaviors that can impact on the livestock industries to become more prevalent over time
- The livestock industries increasingly see that changing community values need to be addressed in a proactive way in order not just to maintain markets, but also to protect license to farm.

Key words: animal welfare, public attitudes, social license, livestock

Introduction

Australian society is characterized by a pervasive influence of animals in all aspects of human life. Although most countries use animals as companions, for production and for sport and entertainment, the scale and variety of animals in Australia is unparalleled. For example, companion animal ownership in Australia is among the highest in the world with 62% of households owning a pet (Animal Medicines Australia, 2016). Australia was the highest exporter in the world of beef, lamb, and mutton and goat meat in 2015 (MLA, 2015). Australia also uses kangaroos for human and animal food and deals with pockets of kangaroo overpopulation. Feral dogs, cats, goats, rabbits, and other introduced species pose a threat to wildlife or farming. Although there have been animal welfare concerns expressed by the public in the conventional media and on social media about companion animals, wildlife, animals used in sport and recreation, this chapter will focus on livestock, it being the focus of this book.

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Although public concerns about livestock animal welfare are well documented in several countries (e.g., European Commission, 2007; Gracia, 2013), there has been an on-going interest in these concerns in Australia (e.g., Parbery and Wilkinson, 2012; Coleman et al., 2015, 2017). These concerns about the livestock industries are not the major drivers of consumer-purchasing decisions because attitudes to livestock welfare is only one of the predictors of purchasing behavior with price, healthiness, and local production being more important for consumers (Coleman et al. 2005; Coleman and Toukhsati 2006). Public attitudes to livestock farming may, however, be a threat to social license to farm (Martin and Shepheard, 2011; Coleman et al., 2015, 2017). An attempt will be made here to tease out some of the possible effects of public concerns about farm animal welfare on the livestock industries in Australia. Suggestions to facilitate discourse among the various stakeholders will be raised with a view to achieving a degree of convergence in opinions and in agreed approaches to livestock farming in the future. The relevance of public attitude to consumption of animal products and to social license to farm will now be discussed in the context of the Australian experience.

Public Attitudes and Consumption of Animal Products

Coleman and Toukhsati (2006) surveyed 516 Australian respondents about their perceptions toward farm animal welfare and meat purchases. Of these 516 respondents, 116 respondents were interviewed at point-of-sale. Attitudes, in combination with demographic variables, predicted 13.3% of the variance in self-reported sheep meat purchases but did not significantly predict point-of-sale sheep meat purchases. The results also indicated that, although welfare was moderately important, factors other than concern for animal welfare were more predictive of pork, beef, and sheep meat purchases. The fact that animal welfare attitudes play only a moderate role in predicting some consumer behaviors is perhaps not surprising considering that a host of other factors influence purchasing behaviors. Past research has shown that when food attributes relevant to meat purchasing are ranked in order of importance, freshness, taste, flavor, safety, and price are rated as extremely important, and attributes such as humane treatment and environmentally friendly are rated as very important (Curtis et al., 2011). Australian consumers rank animal welfare fifth in a list of 15 attributes (Coleman and Toukhsati,

2006) and is only weakly correlated with beef and uncorrelated with lamb purchases. Many consumers do report thinking about animal welfare when they purchase meat and meat products in Australia (Department for Environment Food and Rural Affairs, 2011) and elsewhere (European Commission, 2007), but it is the other factors that are most influential in purchasing decisions. However, that is not to say that animal welfare concerns are of limited relevance to the livestock industries, but its role is complex. Red meat consumption per capita is declining in Australia but pork and chicken consumption has been rising (Ratnasiri and Bandara, 2017) despite the fact that the latter attract the greatest public concerns about animal welfare (Coleman et al., 2014).

There is relatively little research that specifically targets consumer attitudes to sheep welfare affecting the purchase of wool products. In three southern U.S. states, consumers were willing to pay more for U.S. wool over Australian wool (Hustvedt et al., 2013). However, this research targeted ethnocentricity without reference to environmental or welfare concerns so it is not known what aspects of the Australian product were less preferred. The practice of mulesing (discussed in more detail below) has attracted considerable adverse publicity. There was considerable media reporting of calls by People for the Ethical Treatment of Animals (PETA) to boycott the purchase of Australian wool and instances where buyers did boycott the purchase of Australian wool (for example, Brennan, 2009). This boycotting was done by wool buyers, not consumers. In fact, this is a similar pattern to that observed with meat products. It is often somewhere in the supply chain that constraints on the purchasing of sheep products, not at the consumer level. Despite these boycotts, the Australian national flock numbers are higher in 2016 than they were in 2009. Also, in the 2 years, October 2014 to October 2016, wool prices have steadily risen (Australian Wool Innovation, 2016). Nevertheless, Lee (2014) used the Theory of Planned Behavior (Ajzen, 1991) approach to investigate the effects of one- and two-sided communications for and against the purchasing of fashion goods based on animal products including wool (Lee, 2014). He found that attitudes and normative beliefs predicted intention to purchase wool products. Importantly, one-sided messages that described mulesing made respondents' attitudes more negative, whereas positive messages about the superiority of wool as a fiber did not make attitudes more positive. Respondents exposed to both messages had more negative attitudes than those exposed to irrelevant or positive information, but slightly more positive than those exposed just to negative information. This indicates that for the general community to be properly informed both positive and negative information need to be addressed. The sheep industry needs to discuss sheep welfare issues transparently if it wishes to maintain trust and counter the adverse publicity that adverse media campaigns produce.

These behaviors and the public opinions driving them can have a considerable influence on how Governments either react to publicized "animal welfare events" or regulate contentious management practices in industry. This is especially the case when concerns are expressed by nongovernmental animal welfare or rights organizations. The campaign by PETA in 2004 against the practice of mulesing in the Australian sheep

industry is an example of this, where PETA demanded that the practice of mulesing in Australian sheep flocks cease. The industry response to this is discussed below, but the campaign received widespread media coverage and led to some countries banning the import of Australian wool.

Public Attitudes and Social License to Farm

There is accumulating evidence that public attitudes to animal welfare in Australia may be relevant to community behaviors that potentially impact the livestock industries than they are to purchasing and consumption behaviors. According to Coleman and Toukhsati (2006, p.21) "community behaviours that do not require public expression or public identification" are common in relation to livestock issues and "involve taking advantage of situational opportunities to express an attitude through action". Such behaviors (e.g., signing petitions, donating money, speaking to colleagues about animal welfare issues) and their associated public opinions can influence on how Governments either react to publicized "animal welfare events" or regulate contentious management practices in industry. Concerns about animal welfare together with concerns about issues relating to climate change, water scarcity, and declining biodiversity may all threaten farmer's social license to farm. Social license to farm is defined by Martin and Shepheard (2011) as "...the latitude that society allows to its citizens to exploit resources for their private purposes" (2011, p. 4). Social license is granted when industries behave in a manner that is consistent, not just with their legal obligations but also with community expectations (Gunningham et al., 2004; Williams et al., 2007). Failure to fulfill the obligations inherent to social license can lead to increased litigation, increased regulations, and increasing consumer demands all of which hamper the success of industries.

This is especially the case when concerns are expressed by nongovernmental animal welfare or rights organizations. The "Save Babe" campaign an example where community pressure, exerted by an animal rights organization, triggered industry changes. In 2006, Animals Australia, a federation of animal welfare groups in Australia, launched the "Save Babe" campaign to raise public awareness about the containment of sows in farrowing crates (Animals Australia, 2016). This campaign and the community pressure that followed, led directly to the pork industry making a proactive response whereby the revised Australian Code of Practice for pigs has included changes to the duration that gestating sows can be housed in stalls. Not only this but the pork industry voluntarily decided to phase out sow stalls entirely by 2017. Further to this, Coles, a major chain of supermarkets in Australia, subsequently announced that Coles Brand fresh pork products will come from sow stall-free farms. This practice was subsequently extended to all pork products including bacon and ham (Coles, 2016). The examples just cited have several consequences. On the one hand, producers are faced with the need to expend capital on changing their facilities and this impacts farm profitability or pricing of pork or both. On the other hand, public perceptions of pork production may become more favorable because of the perceived greater welfare friendliness of pork production.

Table 1. Percentages of community behaviors in opposition to the livestock industries.*

	Written to a	Called radio	Attended a	Signed a	Donated money to animal	Volunteered services to	Spoken to colleagues,	Written to a
	politician	talk back	public rally	petition	welfare organization	animal welfare organization	family or friends	newspaper
Study 1	4.5%	1.6%	3.1%	25.6%	35.6%	3.0%	30.1%	2.2%
Study 2	9.4%	2.3%	7.5%	36.3%	46.6%	11.7%	55.3%	4.0%

^{*}Adapted from Coleman et al. (2017a).

There has been a trend for community behaviors that can impact on the livestock industries to become more prevalent over time. Table 1 shows the changes in the frequencies with which respondents reported being engaged in community behaviors in opposition to the livestock industries between 2005 and 2014 (Coleman et al., 2017a). Most respondents engaged in at least one community behavior.

These data show that, in Australia, the community does engage in activities that may impact the livestock industries. The most prevalent behaviors (signing petitions, donating to welfare organizations, and speaking to family and friends) are those that are relatively easy to carry out and may have less impact than lobbying politicians or calling talkback radio but they do indicate a surprisingly high level of community engagement.

Coleman et al. (2016) found that information seeking and trust in information, attitudes related to animal welfare and the livestock industries, and membership of an animal welfare group, accounted for 43% of the variance in community behaviors that express dissatisfaction with the livestock industries. This study found that about 15% of 479 respondents identified themselves as opinion leaders, that is, people who tended be used as a source of animal welfare-related information by friends and neighbors. tended to be asked about livestock animal welfare and tended to tell people about livestock welfare. In general, these people held more negative views of the livestock industries, and were characterized, in particular, by more negative beliefs about livestock animal welfare, a higher self-perceived knowledge of livestock practices, but no better actual knowledge than the remainder of the population. Further, these people tended to engage in more activities in opposition to the livestock industries (Coleman, 2017b). As yet, there is no research on what, if any, role such people play in forming or reinforcing public opinions about the livestock industries.

According to Martin and Shepheard (2011), working with the community, understanding their opinions toward important issues like animal welfare and the environment, in a manner indicative of cooperation rather than working against them in a defensive manner, is the most successful means to addressing threats to social license. In this light, exploring public opinions toward the livestock animal industry and the behaviors that they engage in is an important first step to engaging with the community.

A Case Study in Threats to the Livestock Industries—Mulesing

Coleman (2017b) has discussed public perceptions of sheep welfare in some detail, but the example of mulesing is relevant to this paper. Mulesing is the surgical procedure that removes skin from the tail and breech area of sheep in order to prevent

flystrike. Flystrike, which can lead to death, is a particularly painful and stressful condition where flies lay their eggs in the soiled areas of the fleece and the maggots feed on the fleece and flesh in the area (Shutt et al., 1988; Colditz et al., 2005). Public concerns about mulesing focus not on the welfare risks of pain, stress, and mortality associated with flystrike, but on the painful and stressful surgical procedure of mulesing to prevent flystrike. As Coleman (2017b) reported, in a study that investigated the extent to which Australians approved or disapproved of mulesing, about 28% disapproved or strongly disapproved, 22% did not know and 32% neither approved nor disapproved (Coleman et al., 2014). This disapproval had increased since 2000 but has leveled out recently. In a Roy Morgan survey (Roy Morgan Research, 2000), only 3% of Australians disapproved of mulesing in 2000. By 2006, this percentage grew to 39% (Coleman and Toukhsati, 2006) but reduced to 28% in 2014 (Coleman et al., 2014). In this most recent survey, when asked to identify the correct definition of mulesing from two options presented, only 62% answered correctly. This is not much above chance.

Farmers have had varying responses to this public concern. Western Australian wool producers generally held negative attitudes to the practice, but half indicated that they would continue to mules (Wells et al., 2011). Also, about half of the farmers surveyed believed that consumers don't care about the issue. This is not too different from the survey results reported above (Coleman et al., 2014). Mulesing is still practiced. In Western Australia during 2014 to 2015, of those cases where respondents provided information (48% did not) 75% of sheep were mulesed (Lindon, 2015). The industry response to these public concerns has been to attempt to find alternatives to mulesing. There has been some progress on alternatives to mulesing (Agriculture Victoria, 2016) using intradermal technology, insecticides, targeting the sheep genome, and targeting the blowfly genome. Australian Wool Innovation (a not-for-profit company that invests in R&D and marketing to increase the long-term profitability of Australian woolgrowers) has invested substantially in alternatives to mulesing and pain relief with mulesing (Lindon, 2016). Although some may argue that the industry is slow in its response to public concerns, there are demonstrable changes. For example, in 2016, the local anesthetic Tri-Solfen was used for 73% of mulesed sheep (Lindon, 2016).

Public Attitudes to Intensification in the Livestock Industries

Most livestock industries are demonstrating a trend to greater intensification, with well-established intensive production in the swine, egg, and chicken meat industries and an

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increase in intensification in the other livestock industries feedlots becoming more common in beef and sheep production and herd sizes increasing substantially in dairy production. Outside of Australia, research has indicated that the public is concerned about intensification. On a five-point scale, stocking density was rated by the general community in Belgium as the most important of 16 housing and climate issues (mean = 4.28), but rated as the sixth most important by farmers (mean = 3.53) (Vanhonacker et al., 2008). However, available space was rated equal second most important by the general community (mean = 4.16), whereas farmers rated this issue similarly as third most important (mean = 3.69). It is noticeable that, although the rankings in regard to space were similar for farmers and the general community, the mean for farmers was somewhat lower, possibly indicating that, in absolute terms, farmers attach less importance to space allowance than does the general community.

Matthews (1996) reported that, in New Zealand, the general public perceived extensive production systems provide better animal welfare standards than do more intensive systems.

Coleman et al. (2016) found that, in Australia, public approval of lamb housing decreased as the degree on confinement increased. Housing in large paddocks was generally approved, whereas housing in outdoor pens less approved and housing in indoor pens generally disapproved. Interestingly, respondents from urban areas, regional cities and rural town held similar views. This similarity between respondents is important because it is inconsistent with the often expressed view that the increase in public disapproval of aspects of livestock farming occurs because of increasing urbanization leading to people becoming more disengaged from farming and farming practices (Jensen, 2006). To compare the attitudes of various stakeholders in the Australian sheep industry, Doughty et al. (2017) asked the Australian general public, sheep producers, sheep industry-related scientists, and service providers to provide their thoughts on the importance of a range of sheep welfare issues and possible key indicators. All respondents thought sheep welfare was adequate but that improvement was desired. Issues perceived to cause the most risk to sheep included fly strike (infestation of the sheep with blowfly maggots), nutrition, environmental extremes, and predation while key indicators related to nutrition, food availability, mortality/management, pain and fear, and illness/injuries. Beliefs about the extent to which husbandry practices were seen to compromise sheep welfare was highest for the general public (mean =3.83 on a four-point scale) and lowest for producers (mean = 2.73). Notably, intensification was not raised spontaneously as a high welfare risk.

At present, although survey data indicate that the public disapproves of increasing intensification, it rarely arises in public discourse except for specific instances where the issue is raised in the media. The "Save Babe" campaign discussed earlier is an instance of this, although the focus here was on the effects of close confinement of sows rather than the more general issue of intensification. Nevertheless, there is on-going research and development of alternative housing system for pigs, laying, and broiler hens in response to various public concerns

about production methods in these industries. Feedlots and large scale dairy production may well become targets of similar expressions of public concern in the future.

Transport of Live Animals

As a large country with extensively farmed sheep and beef cattle, livestock in Australia may need to be moved very long distances to ports for export or to meat processors. In Northern Australia, year round and in the southern states in summer, daytime temperatures can be high, in excess of 40 °C. Mature sheep destined for slaughter as mutton in Australia may be subjected to extended transport durations given the location of the two main mutton export abattoirs in central New South Wales and Southern Western Australia. There are clear standards that guide transport, for example, Meat and Livestock Australia's "Is it fit to load?" (MLA, 2012) and, although these guidelines have no regulatory power, their use is strongly encouraged. Similar frameworks exist in other countries, for example in the EU, the Welfare of Animals during Transport (DEFRA, 2007). Despite these regulatory frameworks, an Australian study (Coleman et al., 2014) found that 24% of the general public indicated low trust in workers involved in livestock transport on land and 41% indicated low trust in workers involved in livestock transport by sea. This latter figure may reflect a number of adverse events that had been reported in the Australian media in regard to live sheep export and strong criticism by the Australian animal rights group, Animals Australia (2013, Banliveexport) at the time of the survey. There is presently an active campaign by animal rights groups to ban live exports of sheep and cattle. It may be that live exports are not sustainable in the long term, but the export industry is worth 800 Million AUD per annum and Australian government has established enforceable standards for the export of livestock and "is the only country that requires specific animal welfare outcomes for livestock exports. Australia's on-going involvement in this trade provides an opportunity to influence animal welfare conditions in importing countries." (Department of Agriculture and Water Resources, 2017). Clearly, there is a strong imperative from the industry and from government to continue live exports.

Where Next?

The forgoing discussion is a brief snapshot of some of the areas of public discussion regarding animal welfare in the Australian livestock industries. In many respects, it is similar to the situation in Europe and North America. However, there are some features that are distinctively Australian. The combination of high summer temperatures, low rainfall, very extensive farming in the red meat industries and the associated long transport distances, live export of livestock as well as the prevalence of intensive farming of pigs and poultry is somewhat unique to Australia. The broad range of potential welfare risks to livestock that the Australian context entails means that there will be on-going scrutiny of the industries by the general public

as well as by governments. How this is managed to maintain a balance between changing community values and demands, changes in domestic consumption patterns, and the increasing demands for export is a continuing challenge. A major initiative by the Australian Federal government to deal with this was the establishment of the Australian Animal Welfare Strategy (AAWS) in 2004. AAWS provided a national forum where stakeholders including industry members, researchers, animal welfare organizations, and government could develop strategies to manage animal welfare for livestock, companion animals, animals used in research and wildlife. AAWS established a series of working groups, some of which were sector-specific, and some of which were cross-sectoral (Table 2).

The AAWS initiative produced an enormous amount of information that is available to all stakeholders, including the general public, and made significant progress in achieving a degree of convergence in thinking across all of the stakeholders, some of whom would normally hold quite disparate views. The Australian government ceased its financial support of AAWS in 2014 but its outputs are currently under the custodianship of the Australian Veterinary Association and can be accessed (AAWS, 2017). However, as a forum, it is no longer active and there remains a need to provide all stakeholders with the opportunity to consider the major issues of the day and to develop strategies to address them. A forum that still exists is the Australian National Animal Welfare RD&E Strategy that is part of the broader National Primary Industries Research, Development and Extension Framework (NPIRDEF, 2017). It is a forum comprising stakeholders from the animal industries, research organizations and the RSPCA as an observer that seeks to identify priorities for animal welfare RD&E that are common to the livestock industries and to facilitate co-investment leading to appropriate RD&E. To an extent, it continues some of the initiatives that were originally developed as part of AAWS. However, there remains a lack of a broad process, similar to AAWS that covers all animal species in contexts other than food and fiber production such as companion animals, animals in sport, research and in zoos as well as pests and feral species. There is an on-going need for such a forum to fill gaps in knowledge, engage the community in addressing animal welfare issues and to manage the license for farmers to provide food and fiber in commercial settings.

Table 2. Working groups established by the Australian Animal Welfare Strategy.

Cross-sectoral groups	Communications
	Education and Training
	Research and Development
Sector-specific groups	Animals in Research and Teaching
	Native and Introduced Wildlife
	Animals Used for Work, Recreation, Entertainment or Display
	Aquatic Animals Working Group
	Livestock and Production Animals
	Pets and Companion Animals

It is difficult to forecast how trends in public concern about farm animal welfare in Australia will develop. The history of public discourse in this area has typically shown that adverse events, for example, filming of bad practices in abattoirs or on farms, drive expressions of public concern that subside fairly quickly. Campaigns by animal rights groups also have similar effects, for example, campaigns against live cattle exports, or against intensive housing in pigs or poultry. However, the wide impact of these depends on media coverage, but this is often short-lived and has diminished recently. Nevertheless, there is a wide awareness in the livestock industries of animal welfare as a high priority issue and an awareness that changing community values need to be addressed in a proactive way. It is likely, therefore, that there will continue to be attempts by the livestock industries to identify and address welfare risks and the better engage the community in justifying practices on the one hand and responding to public concerns on the other. This will necessarily involve a greater emphasis on engagement and transparency and less on a public relations approach. It will also entail a transition from defensiveness by the livestock industries to engagement and a willingness to treat public discourses as a communication exercise rather than simply dismissing public concerns as reflections of a lack of community knowledge or understanding.

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