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What can and can't crowding theories tell us about farmers' 'environmental' intentions in post-Agri-Environment Scheme contexts?

Helena S Darragh and Steven B Emery

Abstract

The termination of the Entry Level Stewardship (ELS) Agri-Environment Scheme in England provides a unique opportunity for testing and exploring the so-called crowding-out theory. The theory posits that payment for the provision of public goods leads to a reduction in the intrinsic motivation for their supply. Through a small qualitative case study of farmers in Southwest England we explore farmers' intentions to continue with 'environmental behaviours' following the cessation of ELS. Contrary to the crowding-out theory we find that farmers will continue with longstanding 'environmental practices' that were financially rewarded by the ELS, but will pick and choose whether to continue with newly introduced practices depending on how they fit with farmers' existing cultural, economic and instrumental priorities. Moreover, we argue that the crowding-out theory is based on a set of assumptions and simplifications that do not adequately help us interpret the relationship between farmers' motives, practices and intentions. In particular, we show that intrinsic and extrinsic motives cannot straightforwardly be separated and that definitions of what constitutes an 'environmental behaviour' are far more complex than is often assumed.

Keywords:

Crowding-out, crowding-in, good farmer, agri-environment schemes, Environmental Stewardship, farmers, environmental perceptions, Payments for Ecosystem Services, neoliberalism

Introduction

The end of the so-called 'broad and shallow' Entry Level Stewardship (ELS) Agri-environment Scheme (AES) in England (phasing out from 2015) provides a unique opportunity to investigate the much-feared concept of 'crowding-out' that has been applied to the theory and practice of subsidising the provision of public goods. In environmental contexts, crowding-out postulates that land managers who had previously provided public

goods for free, but that are subsequently remunerated for the provision of said public goods, will come to expect payment for their continued provision. If that payment changes, or is removed, therefore, it is assumed that land managers will cease to provide the public good because a new expectation for payment has been established (Vatn, 2010). The crowding-out question arises in the current situation because many farmers in England that had been eligible for the ELS will not be eligible for its replacement scheme (Countryside Stewardship). Indeed, the fear of crowding-out was specifically raised by academic commentators upon the introduction ELS (Hodge and Reader, 2010).

In this paper we report findings from a small, exploratory case study of twelve farmers in Southwest England. Using semi-structured interviews, farmers' reflections on the existing AES in England and their thoughts about the forthcoming changes to AES provision were sought. In particular, farmers' post-ELS intentions to continue with 'environmental' behaviours that had been supported by the ELS were explored. We also sought to contextualise these intentions in terms of farmers' varying perceptions of 'the environment' as well as their normative and diachronic understandings of 'good farming' (Silvasti, 2003; Burton, 2004). In doing so, our aim is to engage critically with the theory of crowding-out, which, we argue, oversimplifies assumptions about farmers' intentions that are based on a rational economistic approach to decision-making. Moreover, in order to fully understand farmers' pre-, in- and post-subsidy behaviours, we argue that it is necessary to understand what motivates the provision of so-called public goods in the first place as well as how conceptualisations of the 'environment' are interpreted and employed rhetorically by farmers in support of their own values and interests.

With the increased trialling and normalisation of Payment for Ecosystem Service (PES) approaches under neoliberal environmental management regimes our findings —albeit based

on a small sample — are not only relevant to the continued development of agri-environmental policies and schemes, but can contribute to our understanding of the longer-term implications of environmental commodification on farmers' behaviours and intentions across a range of international contexts.

The Demise of Entry Level Stewardship in England

We do not have space here to provide an exhaustive history of AES policy and provision in England. Numerous studies have examined the historic Environmentally Sensitive Areas (ESA) scheme (1987-2005) (Ovenden *et al*., 1998; Hodge and McNally, 1998) and the Countryside Stewardship Scheme (CSS) (1991-2005) (Morris, 2004; Carey *et al*., 2002) as well as the outgoing Environmental Stewardship Scheme (comprised of Higher Level and Entry Level Stewardship) (Ewald *et al*., 2010; Quillerou and Fraser, 2010). These all derive ultimately from the EU's Common Agricultural Policy (CAP) and are adopted through English policy. Full details of the new Countryside Stewardship Scheme are available from the gov.uk website.[1]

Here, we will provide brief background to the reasons behind the emergence and demise of the ELS scheme. ELS was introduced following the 2003 reforms to the CAP. The reforms had different implications for different farmers in England but, in general, meant a transfer of funding away from agricultural production *per se*, toward an area-based payment contingent upon good agricultural and environmental practice and the increased availability of funding through AES. Such a shift was politically expedient in England (but throughout Europe too) since it could help convince international trading partners (and the WTO) that subsidies were not trade distorting (since they were not linked to production) (Potter and Burney, 2002). Additionally, increasingly restless domestic taxpayers could be assured that their money was being put to good use.

From a cynical perspective, therefore, it could be claimed that the straightforward ELS was a means of ensuring continued (and more palatable) subsidy support to the majority of farmers.[2] This is because the ELS introduced a revolution in AES support by being open to all farmers who could meet point-based criteria for the implementation of (what were often) straightforward measures. The preceding ESA and CSS had only been available in areas deemed to be of high nature value, or on a competitive basis for the implementation of more demanding environmental measures. The openness and straightforwardness of the ELS led to it being labelled a 'broad and shallow' scheme (Boatman *et al*., 2008, p. 25). In this sense, the scheme was highly successful in encouraging uptake with 72% of land in England under some form of AES in 2015 (Defra, 2016). The less cynical perspective, therefore, is that ELS was introduced to get a large number of farmers and a large area of land engaged in environmental behaviours that had hitherto been under no form of agri-environmental regulation. This could be seen as desirable on account of a recognised need to reduce the administrative costs of AES and to consider the environmental value of more 'regular' agricultural landscapes (outside of designated 'high nature value' areas), which had seen significant declines of important species such as farmland birds (PCFFF [Curry Report], 2002, p. 79).

ELS has been criticised for an at best partial delivery of its intended environmental benefits (Davey *et al*., 2010a); for not, therefore, being cost-effective (Breeze *et al*., 2014); for not allowing tailoring to regional differences (Davey *et al*., 2010b; Emery and Franks, 2012); for allowing farmers too much choice of options, facilitating uptake but hindering environmental benefits (Hodge and Reader, 2010), and; for not providing a mechanism for delivering environmental benefits at the greater-than-farm scale (Emery and Franks, 2012; Franks and Emery, 2013; McKenzie *et al*., 2013). Many of these criticisms, as well as a tightening of the

purse strings following the 2008 recession were instrumental in the re-design of AES in the EU and England which led to the complete removal of the broad and shallow type scheme. Instead, the new Countryside Stewardship Scheme incorporates a Mid-tier, Higher-tier, and capital grant scheme, all of which are competitively allocated and regionally tailored. The area of farmland in England involved in AES is expected to halve (from 5.1 million hectares in 2015 (Defra, 2016). This will leave 36,100 ELS agreement holders contemplating whether they wished to apply, whether they were eligible to apply and whether they would be successful in the event of application to the new CSS. We hope to shed light in this paper therefore: On whether the large proportion of those 36,100 farmers who come out of ELS altogether will continue to implement environmental measures in the absence of funding to do so? And, more importantly, whether they will cease to carry out measures that they had performed unpaid prior to joining ELS because a right for payment for the performance of those measures has now been established? If the crowding-out theory holds true, then the answer to the second of these questions will be in the affirmative. To allow a fuller interrogation of these questions the following Sections expand on the theory of crowding-out; the structural, normative and knowledge-based influences on farmers' agri-environmental behaviour, and; farmers' environmental perceptions and constructions.

Crowding-Out

The crowding-out effect emerged as an academic interest in the 1970s in the disciplines of economics and psychology, and was subsequently integrated and developed in the domain of behavioural economics (Frey and Jegen, 2001). It concerns the predicted negative consequence (a reduction in supply) of paying individuals for the provision of public goods that had previously been provided out of an intrinsic motivation (or for 'free').

Notably, it has figured extensively in the domain of environmental management, policy and economics (for instance, Berglund and Matti, 2006; Vatn, 2010; Corbera, 2012; Kerr *et al*., 2012). Conventional environmental economics emerged in the 1960s (Pearce, 2002) and sought to address the market failures inherent in resource and environmental management; namely that a raft of environmental benefits (positive externalities) and environmental disadvantages (negative externalities) generated by human behaviour went unpriced, leading to the under-protection and over-exploitation of the natural environment. In terms of positive externalities, the conventional economic theory held that paying individuals/groups for the provision of environmental goods would increase their supply. In contemporary environmental policy this is best exemplified by the discourse and practice of PES. Crowding-out, in contrast, argues that the opposite is (or can be) true: that monetarising the provision of environmental goods and services can actually serve to diminish their supply.

In agri-environmental contexts crowding-out has been concisely defined as 'the reduction of willingness to engage in environmentally friendly actions due to being paid to do so' (Meyer *et al*., 2014, p.191). This reduced willingness is on account of the 'crowding-out' of intrinsic motives (those derived from a personal sense of satisfaction/reward in conducting a particular action) by extrinsic motives (those derived from the anticipated material benefits derived from the completion of a particular action). The literature reports many instances in which farmers' conducting of conservation practices — such as taking measures to enhance biodiversity, maintain landscape features, or minimise pollution — is motivated by intrinsic satisfaction rather than any associated material reward (e.g. Greiner *et al.*, 2009).

As reported in the previous section, Hodge and Reader (2010, p. 279) criticise ELS for encouraging little change in behaviour among farmers, stating that it allows farmers to 'choose options that they would have undertaken anyway' which may not maximise 'the

environmental benefits or provision of public goods' (see also Falconer, 2000; Boonstra *et al*., 2011; Vanslembrouck *et al*., 2002; Mills, 2012). However, it should be noted that one of the original intentions of the ELS, as set out in the Curry Report (PCFFF, 2002), was to address criticisms of the previous AES pertaining to the fact that they did not reward existing good practice. Hence, the ELS sought to correct market failures by rewarding farmers for their continued supply of positive environmental externalities.

Hodge and Reader (2010) also express a strong concern relating to ELS and the potential for crowding-out. They argue that it can replace the intrinsic stewardship ethic among farmers with an expectation for payment:

> ELS effectively extends a right to receive payment for the provision of environmental goods (or more specifically for undertaking actions that are thought to be likely to provide environmental goods), irrespective of what would happen in the absence of the payment. There is no need either to threaten to reduce the future supply or to take any actions that are required in order to enhance supply. This signals that landholders generally may expect to receive payment for the provision of public goods. As such, the ELS makes it explicit that there is no duty on landholders to undertake the actions available as options within the scheme in that the state is now offering payment for undertaking them and *implies that continued supply into the future may become dependant [sic] on the continuation of government payments*. (Hodge and Reader, 2010, pp. 279-280, emphasis added).

The final sentence of this extract resonates entirely with the current situation (the termination of ELS) and provides a foundational justification for our analysis here. Despite some evidence for crowding-out in agri-environmental contexts (Andrews *et al*., 2013; Herzon and Mikk, 2007 [cited by de Snoo *et al*., 2014, p. 67]), the agri-environmental literature more often, like Hodge and Reader (2010), identifies crowding-out as a potential concern rather than providing concrete evidence for it. Moreover, many recognise the more complex relationship between intrinsic motives, financial incentives and behaviours. Duncan *et al.* (2014), based on research in Australia, provide evidence which does not support the crowding-out effect. They show that previous recipients of conservation funding were more, rather than less, likely to undertake further conservation behaviour in the absence of funding.

Unfortunately, Duncan *et al.'s* analysis does not yield an explanation for the motives behind the increased conservation behaviour, but they might be linked to the counter phenomenon of crowding-in; whereby financial incentives encourage the formation of new intrinsic motives which may outlast the monetary support (Frey and Jegen, 2001). In a review of the 'crowding effect' in conservation policy Rode *et al*. (2015) find evidence for both crowding-out and crowding-in of intrinsic motivations for conservation behaviour. They also report, however, that there exists an inadequate understanding of the intrinsic motivations that precede payment schemes and that cultural and contextual factors serve to complicate the determination of clear relationships between intrinsic motives, financial motives and environmental behaviours. In response to this shortcoming, in this paper we also consider the reasons behind farmers' pre-subsidy behaviours and how these relate to their post-subsidy intentions. Moreover, we explore how these motives and intentions are mediated normatively through recourse to the cultural ideal of the 'good farmer' (Silvasti, 2003; Burton, 2004; Riley, 2016). We argue that crowding-out proceeds on the same narrowly rational economistic basis as the theories that it wishes to challenge and suggest that cultural interpretation can better help us understand the likely motives and behaviours of farmers in post-subsidy contexts.

Farming culture and engagement in AES

There are numerous studies that attempt to reveal the reasons behind farmers' acceptance and uptake of AES. Quantitatively derived studies tend to produce results indicating a significant influence of structural factors, such as age, farm size/type and income (Damianos and Giannakopoulos, 2002; Desfranceso *et al*., 2008) whilst more qualitative techniques emphasise the impact of personal values, culture and identity (Morris and Potter, 1995; Morris *et al*., 2000). Whilst the economic benefits of ELS combined with the minimal

effort/change required by farmers to receive payment (Hodge and Reader, 2010) are emphasised as important determinants of ELS uptake, others have argued that there exist wider benefits to farmers from AES engagement. Sutherland (2011) draws attention to the number of farmers already adopting environmentally friendly techniques, not out of a primary concern for the environment, but for other motives such as reducing input costs.

Alternatively, Lokhorst *et al.* (2011) argue that farmers have environmental motives associated with self-identity, but these are pronounced for unsubsidised rather than subsidised environmental behaviours. This contrasts, therefore, with cultural arguments relating to the 'good farmer' model which stipulate that farming identities (of dominantly productivist character) serve as barriers to environmental behaviours (Burton, 2004; Burton *et al*., 2008). It also contrasts, however, with developments of the good farming model which suggest that AES have positively altered farmers' notions of goodness within their self-identification processes to incorporate environmental responsibilities (Soini and Aakula, 2007; Sutherland and Darnhofer, 2012; Riley, 2016). Such interpretations help explain why crowding-in, as opposed to crowding-out might be expected as a result of AES engagement; i.e. by altering notions of good farming, an intrinsic motive toward environmental behaviours may be created by farmers' involvement in AES. However, Lockhorst *et al.'s* interpretation seems consistent with crowding-out arguments since it suggests that intrinsically/normatively motivated environmental behaviours that take place outside of subsidised schemes might lose that normative motive once a financial incentive becomes available. As argued by de Snoo *et al*. (2013, p. 67) 'actions that were originally driven by cultural perceptions of "good farming" practice may become dependent on monetary stimuli'.

What Lockhorst *et al.* (2011) are not able to explain, however, is just what, exactly, farmers consider non-subsidised environmental behaviours to entail. What we wish to argue in this

paper is that farmers may have very different conceptualisations of 'the environment' of 'nature' and of 'conservation practices' to conservationists or agri-environmental practitioners and theorists. Hence it may be wholly consistent for them to self-identify with practices outside of AES that they consider, or *represent*, as 'environmental' (but that others would not), whilst at the same time distancing themselves from AES induced practices (often seen as imposed and unwelcome) which they may consider, or again *represent*, to be anti-environmental, or that oppose their own conceptualisations of appropriate conservation behaviour or good farm stewardship (Harrison and Burgess, 1998). It is necessary to consider, therefore, whether farmers' self-reporting of environmental practices and values (either in spite of, or because of, AES engagement) is indicative of a (existing or emerging) normative association or because it has become a useful discourse with which to present their claims and arguments to those outside the farming community.

Farmers' perceptions and representations of the 'environment'

Extensive literature exists that tries to discern farmers' ways of perceiving concepts such as 'environment', 'nature' and 'conservation' (Boonstra *et al*., 2011; McEachern, 1992; McHenry, 1998; Setten, 2004; Vergunst, 2012). These perceptions are often wrapped up with culture, knowledge and identity. An awareness that the way in which farmers engage with these terms is often different from those who influence agri-environmental policy (such as ecologists and conservationists) is crucial in order to understand farmers' engagement with AES.

Whilst McHenry (1998) found that most farmers were willing to comply with conservation measures in AES, she argues that as environmental issues have become increasingly important in agricultural policy, farmers have adapted their understanding of the environment to encompass their previous 'good farming' practices, labelling these practices as

conservationist behaviour as a means of justifying their continuation (see also Setten, 2001). Evidently, these previous approaches to ‘good farming’ are unlikely to conform with a conservationist’s understanding of appropriate conservation behaviours. Drawing on work by Cary (1993), McHenry (1998) suggests that this reaction to AES is indicative of an adoption of 'symbolic conservation' practice in agriculture, whereby farmers have continued to perform actions for instrumental gains, but claim to have done so for conservational reasons (see also Boonstra *et al*., 2011).

Given that 'facts, values, and personal experiences are all bound up together so that nature and its conservation are social and cultural constructs' (Harrison, 1993 [cited by McHenry, 1998, p. 1039]), dissecting farmers' understanding of conservation and environmental concepts reveals much about their identity and knowledge. Farming knowledge is generally passed down through generational ties and secured through constant engagement with the land (Fischler, 2000; Wilson, 1997; Setten, 2001). This provides farmers with a wealth of local and site-specific knowledge which has shaped the very landscapes AES are attempting to protect. This deep connection with the land has led farmers to feel that they possess the best knowledge on how to look after the countryside (Harrison *et al*., 1998; McEachern, 1992).

Of course, different groups of individuals view the concepts of ‘conservation’ and ‘environment’ in different ways dependent on their own values, beliefs and circumstances (McHenry, 1998). This causes a problem in the creation of AES, where scientific input, often deemed as 'expert' knowledge, contributes overwhelmingly to shape agri-environment policy and to determine how farmers should manage their land. Burgess *et al*. (2000) accumulate perspectives from both farmers and conservationists to demonstrate the variance in how both groups would go about preserving the environment, as well as their perspectives on what

421 constitutes a healthy ecological environment (see also Soini and Aakkula, 2006). Farmers
422 often have valuable knowledge to contribute in this regard but feel that their experience is
423 largely overlooked by policymakers (Lokhorst *et al*., 2011; Harrison *et al*., 1998; Wynne,
424 1992). This ignorance of farmers' local knowledge by policymakers can not only result in
425 poor environmental decisions, but can also lead farmers to believe that their identity as
426 managers of the countryside is being threatened and belittled (McHenry, 1998; Wynne,
427 1992). In order to protect their collective identity, farmers may consider and represent
428 different behaviours as 'conservation', thereby challenging the 'expert' opinions used to guide
429 policymaking (Wynne, 1992). Subsequently, the literature has emphasised the need for
430 farmers' opinions to be incorporated into agri-environmental policy (Burgess *et al*., 2000;
431 Malawska *et al*., 2014; Prager and Nagel, 2008; Emery and Franks, 2012).

432 **Methods**

433 Twelve face-to-face semi-structured interviews with farmers located across Dorset and
434 Wiltshire were conducted during July-August, 2014. These counties were chosen on account
435 of their identification as 'target counties' for ELS as part of the Campaign for the Farmed
436 Environment (the target counties were selected to secure ELS coverage on seventy-five
437 percent of land that was formerly set-aside) (Campaign for the Farmed Environment, 2011;
438 Clothier, 2013). Our empirical focus during the interviews has been detailed in the
439 introduction. Consistent with methods adopted in other agri-environment studies (Morris and
440 Potter, 1995; Beedell and Rehman, 1999; Beedell and Rehman, 2000; Holstead *et al*., 2014;
441 Morris *et al*., 2000; Sutherland, 2011; Sutherland and Darnhofer, 2012), the Yellow Pages
442 were used to contact farmers, conversing over the telephone to arrange a visit appointment
443 (see Burton and Wilson, 1999 for a discussion). All farmers provided informed consent for
444 involvement in the research and are referred to numerically to preserve anonymity.

445 Interviews took place at the farmers' home, were recorded with a digital dictaphone and
446 lasted between 30 and 120 minutes. Farmers were asked for their opinion on the delivery and
447 environmental effectiveness of the ELS scheme, the reasons for their decision to implement
448 the scheme, the degree to which their farming methods had altered as a result of adopting
449 ELS and whether they would continue with ELS measures after the CAP reform. Discussions
450 also involved farmers' views on AES policy-making and their reflections on whether they
451 perceived the wider farming community to be more environmentally engaged than in the past
452 as a result of the introduction and mainstreaming of AES in agricultural policy.

453 **[Table 1 Here]**

454 Farms varied in terms of size, type and engagement with AES, among other factors. Table 1
455 shows the different characteristics of the farmers interviewed. Farmers who were involved in
456 HLS schemes were not investigated with regard to the crowding-out discussion, since these
457 farmers were likely to be unaffected by the termination of ELS due to either being able to
458 continue with their current HLS scheme until the end of their ten-year implementation, or
459 confident that they would be able to successfully reapply for the new CS. Nonetheless, these
460 individuals were able to offer valuable insight in other areas as highlighted in the discussion.
461 All recordings were fully transcribed and coded using a thematic approach (Gibbs, 2007).

462 The small-scale nature of our sample ensures that our observations and predictions have to be
463 treated cautiously in terms of their generalisability. Nevertheless, our approach allows for a
464 detailed analysis of the complexity and contradictions inherent in the application of crowding
465 theories to agri-environmental contexts which, we maintain, ensures that the significance of
466 our findings and interpretation extend beyond the limits of our specific case study.

467

Findings and Discussion

Farmers' motivations

A dominant reason offered by the respondents for initially entering into AES was financial. Without it, some implied that implementation of AES would have been unlikely.

> I couldn't do what I'm doing without the payments. You've gotta' remember, it's the payments that make it worthwhile" *(farmer 2)*

> "It's the money which is the incentive, the money comes in handy, it helps" *(farmer 7)*

> "It's obviously got the carrot of the payment but you've got to have some carrot there to get people to do it." *(farmer 10)*

Evidently, providing farmers with monetary payment for conservation practice has a strong influence on AES participation as found by Boonstra *et al*. (2011), Damianos and Giannakopoulos (2002) and Desfranceso *et al.* (2008). Moreover, the majority of farmers explicitly stated that the adoption of an AES had changed their farming practice marginally, if at all.

> "You're just getting money for something you're already doing" *(farmer 1)*

> "In many ways we qualify for ELS without doing anything at all, 'cus there's extra points for cattle and sheep grazing together, which we do and would do it anyway, whether we were being paid for it, or not... it **[the farm]** wouldn't be any different" *(farmer 5)*

> "Apart from [being careful with fertiliser], that was all I had to really do, the rest was just, things we'd normally do, we always cut hedges, we always maintain water courses" (farmer 4)

These extracts support the findings from Falconer (2000), Vanslembrouck *et al*. (2002) and Hodge and Reader (2010), who state that farmers will adopt the options most suited to their current farm practices and resonates with the critics who feel that the ELS does not deliver much environmental improvement relative to the national expenditure on it.

The continuance of previous practices under ELS alongside the central emergence of a financial motive may also, however, support concerns relating to crowding-out. It suggests

practices that were once intrinsically motivated have now come to be valued financially. However, it is important to point out that the farmers suggest the financial motives were important for joining the schemes, rather than for conducting the environmental behaviours *per se*. This is an important distinction, since the financial motive is used to justify the burdens associated with joining the scheme (see below) and may run alongside (rather than replace) a remaining intrinsic (or alternative) motive for continuing with the subsidised behaviour.

A common theme highlighted in the responses was that the payments received for AES do not cover the cost of its implementation.

> "It's not really making the money, it's a nice cheque when it comes in but then you work out how much you're getting for it and it's not worth it ... the sums sort of add up so if you want to do it you can convince yourself 'oh well it's not costing us too much to do it', if you add everything in moderation … it doesn't really pay... you can't regard it as a business decision doing these sort of environmental schemes" *(farmer 11)*

So in spite of the majority of farmers stating that money was an important incentive for joining the ELS many also stress that the money on its own would not be a sufficient incentive, which suggests that other reasons for participation must exist too. Although the necessity of payment was a common theme, many of the same farmers later alluded to notions of environmental responsibility;

> "I think they **[farmers]** do it because they really want to do it, they really want to produce the effects of this, it's not about the scheme, or the money, they want to do it, irrespective of the scheme…. These guys really want to do it, and they'd still do it anyway" *(farmer 4)*

> "Everything we do has to work with the environment rather than against it, or just ignore it. It's very important to us that we maintain it anyway" *(farmer 4)*

Moreover, the farmers viewed the AES as a means of recognition for previous farming practices that had sustained important environmental features for the good of society in the first place (Emery, 2014). It is apparent, therefore, that an intrinsic motivation for the

conducting of environmental behaviours could exist contemporaneously with a financial motive.

Investigating the Crowding-Out Theory

Given this prior (and seemingly intrinsically motivated) 'environmental behaviour', which had been carried out without remuneration, and pending the removal of a relatively recent payment for it, crowding-out concerns are not ill-founded. However, our interviews indicated that the farmers intend to continue with some form of environmental measures subsidised by the AES after the schemes end (see Table 2).

[Table 2 Here]

Table 2 demonstrates that the farmers involved with any AES showed interest in maintaining some environmental focus. As could be expected, the HLS farmers wanted to continue with the scheme. These farmers tended to express less uncertainty than ELS farmers since they were confident in reapplying for the CS schemes with the understanding that these schemes would be similar in fashion to HLS. Organic farmers also seemed undeterred, stating that since they operated with a strong environmental awareness prior to OELS, the termination of this scheme would not result in a change to their farming methods. It is the future intentions of ELS farmers which provide the most significant outcome, who according to crowding-out theory would have simply stopped engaging with any AES requirements because they have come to expect payment for their delivery. Moreover, not only do farmers commit to continuing with prior valued behaviours, but to some (but by no means all) new behaviours initiated by the ELS.

> "Most of the farm will come back into crop production in some shape or form … well I'll keep certain [AES] features where they're convenient for the farm but the rest will probably go" (farmer 12)

> "I think if the environmental schemes went, some things wouldn't get done, but I think a lot of them [farmers] would hold on to a lot of these practices" (farmer 3)

> "Well these buffer strips, it's all part of the greening stuff, it's all sort of trying to carry it on a little bit I suppose, so I expect people will still carry on doing things like that" *(farmer 10)*

This finding somewhat complicates the crowding-out theory and might, in fact, provide evidence for crowding-in, with newly learnt behaviours becoming intrinsically rather than financially motivated upon termination of the scheme. Many farmers highlight specific features that they will continue to implement on their farm which they were not doing before the scheme, despite the lack of payment for these options. These are mentioned above, and include the maintenance of buffer strips and grass margins (particularly for ELS farmers), bird seed plots and pollen and nectar mixes, as well as decreased fertiliser use. These features tended to be attributed to providing wider benefits, such as reduced costs or improving the running of the farm, rather than solely environmental gains (Sutherland, 2011);

> "I think the ELS has sort of, protected some of it, like you know the hedges and that sort of thing, I think it has protected those because they are then worth something to the farmer, they're not then going to, you know, they're going to look after them" *(farmer 3)*

> "**[**I'll keep**]** some of the pollen and nectar mixes and some of the grass margins against the ditches and hedges they're quite valuable, if it snows, I can use the margin to escape! ... You can certainly see the benefits to wildlife and it keeps you away from those features for the machinery" *(farmer 12)*

This finding certainly supports the work of McHenry (1998) who suggests that farmers may be continuing with 'symbolic' conservationist practice and claiming their rationale is as such, when in reality these practices are providing more desirable instrumental benefits to the farm. Crucially, this response may also indicate that farmers were never producing environmental goods out of some intrinsic, altruistic motivation to serve society in the first place. Rather,

575 they were farming in a way they perceived as being sensible and sustainable which happened
576 to also be delivering environmental goods and creating the rural landscape appreciated by so
577 many. Into the future, they will continue to adopt the same pragmatic approach, adopting
578 newly acquired knowledge and practices introduced through the scheme where they are seen
579 as providing added-value (for whatever reason) to the farm.

580 The primary management practice that was identified on numerous occasions as likely to be
581 dropped was the restrictions on hedge cutting, reflecting the work of Mills *et al*. (2013) who
582 find that hedge-cutting regulations were a major deterrent for farmers' engagement in AES.
583 Oreszczyn and Lane (2000) showed how hedgerows form a vital part of the cultural landscape
584 as well as providing environmental benefits, the latter of which is predominantly the focus of
585 many AES (see also Baudry *et al*., 2000; Burel and Baudry, 1995; Oreszczyn, 2000).
586 Crucially, Oreszczyn and Lane (2000) highlight that well-maintained hedgerows are of social
587 symbolic importance to farmers; managing them correctly is tied up with notions of good
588 farming practice. Farmers would usually cut hedges on an annual basis, however it was felt
589 that leaving them to grow for an additional year or two (as demanded by the ELS) was only
590 having a more destructive impact on the environment:

591 "The hedges, we're not at all happy with that, you only cut them every two years and it
592 takes you far longer cutting them the second year and I 'spect you're hearing that
593 everywhere, the hedges are not growing the same as the ones that are cut every year. ...It's
594 damaging them we think cutting them every two years" *(farmer 5)*

595 "One thing we disagreed with a lot at the entry and the higher level, you could only cut
596 hedges every third year, which we feel is a very retrograde step. Because when the hedges
597 become very big, and when you do go the third year, you absolutely massacre them...the
598 sticks are splintered and the hedge almost dies, takes years to recover, so that's the one
599 thing I know that's gonna' be dropped... we always like to trim them, every year, it keeps
600 them much thicker and we got proof that if we leave them for three years the hedges get
601 real rank so there's nowhere for the birds to nest obviously and then when you go in again
602 you absolutely massacre them... a lot of people have found this and said it to them, I said it
603 to the inspector you know, .. he agreed with me! Like he said, this is the rule, so you know,
604 ill thought out rule... apart from the hedge cutting, you know, that's one of the elements no
605 one agreed with at the start of it and it's been proven to be flawed" *(farmer 10)*

606

607 Given their symbolic significance, dropping this hedgerow practice, whilst justified by
608 farmers through environmental argumentation, may in fact be motivated by a desire to return
609 to more traditional methods of hedgerow management, which are in keeping with the more
610 conventional good farming aesthetic. Though machine damage was also a consequence of
611 implementing this rule, farmers choose to emphasise the negative environmental impact
612 associated with this practice, indicating that they have learnt to engage discursively with
613 environmental issues in order to legitimise their arguments. Having found the AES hedge
614 cutting requirements to be ineffective, farmers are choosing to return to practices based on
615 their own local knowledge, rather than that of 'experts'. Doing so for apparently
616 environmental reasons, reinforces their identity as responsible stewards of the countryside,
617 providing a specific example of an area where farmers are declaring their knowledge as
618 superior (McHenry, 1998).

619 This demonstrates that it is equally over-simplistic to assume crowding-in. Farmers do not
620 automatically become intrinsically motivated to carry on with behaviours they have been paid
621 for, and nor do they become intrinsically de-motivated to continue with longstanding
622 behaviours that preceded the subsidy (crowding-out). The complex array of continued and
623 discontinued behavioural intentions demonstrates the farmers' agency and their pragmatic
624 ability to adopt, continue or abandon behaviours according to their perceptions of what is best
625 for their farms.

626

627

628

Farmers' perceptions of the environment

Several comments were made referring to the differences between this generation and the past generation of farmers in their engagement with the environment:

> "You need to work with the environment, British farmers in the seventies and eighties, and even up to the nineties got a real bad name for bashing the countryside, … here we've planted hedges where hedges were never planted, we've put trees in where trees never were, and a lot of people have done the same ... we've gone through that stage with all the old boys that came through the second world war, saying 'it's wrong, it's wrong, it's wrong', to a new generation of great understanding of, er, nature, conservation and the environment" *(farmer 2)*

> "I always think about, I know especially a few farmers, some of them, I know in the sixties it was all about cutting trees and grubbing up, I think it probably did affect them **[environmental schemes]** because they were having to plant trees again and hedges, but I think they wanted to, because they realised what they were missing ... I think farmers, you know the perception of farmers, you know the slash and burn effect, think they're far past that, and now, they look at it from a different point of view." *(farmer 8)*

Despite these quotes suggesting farmers have taken on an increased environmental outlook and approach, a very common argument was that farmers are not and have never intentionally been environmental villains:

> "Do they **[policy-makers]** think we would deliberately go out and poison the ground or kill the trees, or whatever? Without them, without the land, we have nothing." *(farmer 5)*

> "You have to consider the environment because it's what we live and breathe so why destroy it? **[environmental practice]** is something they [farmers] should be doing anyway... you are guardian of the environment and so if there are things there to improve and its worth doing, then why not?" *(farmer 12)*

Evidently, whilst some farmers may engage with more conservationist techniques than others, the farmers in our case study indicated a genuine and personal care for the environment. Given the apparent association between farming identities and environmental diligence, it seems illogical that these farmers would ever have acted in a way that was deliberately neglectful of the environment. We might suggest, therefore, that farmers' environmental

rhetoric has changed more than their actual practices, with an increased recognition of the need to rectify their 'bad name' in the eyes of wider society (Setten, 2004; McHenry, 1998). Many perceive that 'bad name' to be unfair and demotivating and equally recognise that wider societal moral discourses and impressions of farming had shifted far more than the actual practices of farming warranted:

> "From hero, arguably, to villain in one lifetime, doing the same thing, how attitudes have changed" (farmer 9)

Much of farmers' discussions about their pre-, in- and post- subsidy environmental behaviours must be understood in terms of this perceived need to set straight the negative stereotypes of farming which emerged rather suddenly in the 1980s. These stereotypes reversed the previous high regard in which they had been held and caused genuine hurt and demoralisation among farmers (Lowe *et al*., 1997). Somewhat belatedly, farmers have had to tap into this conservation discourse in order to speak in terms understandable to society at large. This is not to dismiss the possibility that farmers' behaviours and/or values toward the environment have genuinely changed. Indeed, norms are never fixed but constantly modified and negotiated in social interaction. This also helps us understand why farmers indicate ELS has little-altered their behaviour in spite of the new types of action it has clearly instigated; they make this argument to point out that it was they who produced the valued landscape in the first place (Emery, 2014).

Farmers' wider views on the schemes

Having established that many farmers do consider environmental care to be integral to their identity as good farmers, it might seem surprising that negative experiences of AES were

684 frequently elicited. However, we suggest that this points towards a problem with AES
685 *themselves* rather than a problem with engaging with conservationist practices.

686 "I've had dialogues with chaps who run these things **[AES]** and even they don't really
687 understand... I don't think they really understand the rules as it is on the piece of paper, we
688 can interpret them better than they can now" *(farmer 4)*

689 "It's inspections, inspections, bane of my life… they are never ending, and that's why we
690 said 'for heaven's sake, cut down on the number of inspections, you must know who the
691 dodgy people are' ... they seem to make it just so they can catch you out if they can"
692 *(farmer 8)*

693 "You're made to feel like a criminal by those who oversee it" *(farmer 9)*

694

695 From these extracts, and based on the wider discussions with farmers, it is clear that they do
696 not have an issue with implementing environmental measures *per se* but with the nature of the
697 schemes and the way in which they are managed. Whilst on occasions farmers valued the
698 environmental benefits delivered by ELS, on other occasions they questioned the
699 environmental value of the schemes (for instance relating to the hedge-cutting requirements).
700 This provides an opportunity for farmers to challenge the knowledge and authority of the
701 conservationists and bureaucrats implementing the schemes (Harrison and Burgess, 1998) and
702 endorses their own knowledge and role in the production of valued environmental landscapes.
703 This is why it is crucially important not to assume environmental behaviours and AES to be
704 synonymous (cf. Lokhorst et al., 2011). This is relevant for our discussion of crowding-out
705 since, in combination with the evidence presented earlier, it demonstrates that when farmers
706 talk about continuing with 'environmental behaviours' this does not automatically mean they
707 will continue to fulfil the stipulations of the AES. Equally, when they talk about
708 discontinuing AES it does not automatically mean they will cease to carry out what they
709 perceive to be important environmental behaviours. In order to conclude our analysis, it is
710 necessary to bring the foregoing insights together in order to problematise crowding theories
711 in terms of the way in which they interpret (and over-simplify) farmers' motives.

712 **Conclusions**

713 Our research provides evidence of a rather complicated set of factors underlying farmers'
714 motives, practices and intentions prior to, during, and following AES involvement. Whilst
715 we found glimpses of evidence that could superficially support crowding theories (both
716 crowding-out and –in), the stated intentions of our sample of farmers post-ELS imply that
717 (again superficially) concerns about crowding upon the termination of ELS (Hodge and
718 Reader, 2010) are ill-founded. Our main argument, however, and the reason for labelling the
719 above-mentioned findings as 'superficial', is that crowding theories are based on a set of
720 assumptions and simplifications that do not adequately help us interpret the relationship
721 between farmers' motives, practices and intentions. We propose four inter-linked reasons as
722 to why any inferences about crowding have to be treated cautiously.

723 Firstly, intrinsic and economic motives cannot be seen as mutually exclusive. Hence to
724 suggest that one type of motivation can simply replace another (or crowd-it-out) over-
725 simplifies matters (Wilson and Hart, 2000, 2001). We demonstrated that farmers continue to
726 nurture non-economic motives for AES practices in spite of coming to be financially
727 incentivised for them, and we also demonstrated that farmers may continue to derive
728 economic or instrumental benefits from the continuance of AES practices (e.g. reductions in
729 artificial fertiliser use) in spite of the removal of the direct subsidy payment.

730 Secondly, and following on from the above point, we question whether farmers' motives for
731 the supply of public goods pre-AES were ever entirely intrinsic in the first place. 'Intrinsic'
732 suggests an internal motivation for a certain behaviour (Frey and Jegen, 2001). However, if
733 farmers are undertaking certain practices (for instance, the supply of public goods on account
734 of a stewardship ethic) for social reasons then these should still be considered to have an
735 external dimension to them. Whilst farmers might not derive direct financial benefit from

736 their compliance with normative expectations or an altruistic outlook, they do derive social
737 endorsements and recognition which can confer benefits upon them (for instance being more
738 likely to benefit from reciprocal relations with other farmers, or being valued – and less likely
739 to be interfered with – by wider society and regulators). Moreover, many of the public goods
740 supplied by farmers prior to AES engagement can also be considered as incidental to the
741 business of farming; hence they were produced, in part at least, through farmers' desire to
742 secure an external income rather than for some intrinsic or environmental motive on the part
743 of the farmer (Sutherland, 2011). If motives were never entirely intrinsic, and if intrinsic and
744 extrinsic motives develop simultaneously and cannot be neatly separated, then attempts to
745 reliably witness the crowding-out effect empirically need to be treated with caution.

746 Third, farmers' conceptualisation of what constitutes an environmental/conservation practice
747 often differs from what a conservationist or academic would consider. We have shown that
748 some farmers do not see AES practices and conservation practices to be synonymous and
749 they endorse their own environmental credentials by challenging the authority and knowledge
750 on which AES measures are based. Fourth, the farmers' in our study use environmental and
751 conservation-oriented discourses to justify certain farming practices that others would not
752 consider as such. This represents farmers' ability to tap-into wider societal values in a
753 somewhat strategic manner (McHenry, 1998). Taken together these third and fourth points
754 allow us to suggest that the way in which farmers *articulate* their practices and intentions as
755 'environmental' should not be treated sceptically (since who is to say they are wrong?) but
756 should be used cautiously when making predictions and theorisations of what farmers do and
757 why.

758 Leaving aside the argument of what does and does not constitute an 'environmental'
759 behaviour our empirical results and interpretation lead us to believe that: the majority of

760 valued pre-ELS practices will continue despite the withdrawal of the scheme, and; practices
761 newly instigated under ELS will be retained or dropped by farmers according to their own
762 circumstances and a complex of intrinsic, normative and instrumental factors. Whilst this is a
763 small study warranting larger-scale testing of these predictions, we believe the findings to be
764 of importance to AES and PES practitioners and theorists alike.

765 On a cultural level, our findings are not able to provide substantiated evidence for normative
766 shifts in conceptualisations of the 'good farmer' on account of farmers' engagement in AES.
767 This is despite evidence that some practices are likely to be retained by farmers post-ELS,
768 and it is despite evidence of the increasing incorporation of conservation discourse into
769 farmers' individual and collective expressions of identity. We certainly do not wish to
770 dismiss the idea that notions of the good farmer are changing, or have changed as a result of
771 AES, but we caution against hasty judgements which might reflect mis-interpretations of
772 what is constituted as an 'environmental' behaviour by different parties and the fact that
773 farmers may engage strategically with conservation discourses to justify the continuance of
774 existing practices and outlooks (which they may, or may not, genuinely believe to be
775 beneficial to the environment). However, building on our previous work into the incessantly
776 negotiated character of farmers' cultural values (Emery, 2010, 2015) we maintain that
777 farmers' discursive engagement with environmental narratives should not be viewed *purely*
778 as rhetorical. Rather, it is precisely through discursive (as well as wider social) interaction
779 between different groups/individuals that norms are constantly challenged and modified.

780 Our engagement with crowding theories in relation to AES termination suggest that they are a
781 useful heuristic tool for exploring the issues associated with paying for environmental
782 services or public goods. In the context of the increasing roll-out of PES management
783 interventions under neoliberal environmental policy (Arsel and Büscher, 2012) it is essential

784 that the rationale for such approaches is challenged. However, as an explanatory mechanism,
785 crowding theories appear overly simplistic because they treat motives as mutually exclusive
786 and oppositional and fail to recognise that the behaviours they seek to explore are
787 multifariously interpreted and highly contested in practice and discourse.

788 Whilst crowding-out theories rightly challenge processes of environmental commodification,
789 they need to do so in a more integrated manner. For it is through the very blurring of
790 economic and cultural motives (and the failure to recognise them as such) that neoliberal
791 agendas and their consequences are propagated (Emery, 2015; Stock *et al.*, 2014). Our
792 evidence suggests that farmers will remain pragmatic in the everyday process of decision-
793 making that continues to characterise farm work and life. In the face of uncertainty, and the
794 ever-changing contexts in which they operate, farmers will continue to weigh-up the
795 practical, economic and social benefits of alternative courses of action. Our understanding
796 and interpretation of their motives, practices and intentions must therefore also account for
797 the complex interactions between these parameters.

798 **Notes:**

799 [1] https://www.gov.uk/government/collections/countryside-stewardship-get-paid-for-
800 environmental-land-management

801 [2] Indeed many farmers in conversation will justify their application to ELS as a means of
802 recouping the production-linked subsidies they had lost.

803

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807

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1016 **Table 1: Respondent characteristics**

Farmer	Farm Type	Farm Size (Ha)	Age of Farmer (years)	Current AES Involvement	Duration of AES Involvement (years)
1	Livestock (beef/dairy)	77	51-60	ELS	5-10
2	Arable	202	51-60	HLS	>10
3	Livestock (dairy)	202	41-50	OELS	5-10
4	Livestock (dairy)	101	51-60	ELS	5-10
5	Livestock (beef/sheep)	147	>60	ELS	5-10
6	Livestock (suckler pigs)	182	>60	HLS	5-10
7	Mixed	4000	>60	HLS	>10
8	Livestock (dairy)	156	>60	OELS	5-10
9	Arable	450	51-60	Withdrawn	<5
10	Livestock (dairy)	81	51-60	ELS	5-10
11	Mixed	344	41-50	HLS	>10
12	Arable	162	41-50	ELS	>10

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Table 2: Table indicating likely outcome for AES and environmental measures on farms in relation to prior AES involvement

Farmer	AES implemented on farm	Intended action with regard to AES
1	ELS	Scheme to end but maintain some environmental measures
2	HLS	Keep HLS scheme
3	OELS	Keep OELS measures despite termination of scheme, having not changed practice to enter into scheme. Felt unaffected by scheme ending
4	ELS	Doubtful that they would continue with AES but would continue to work with environment
5	ELS	End of AES but retain some environmental measures on farm
6	HLS	Unsure but assumed to continue with HLS
7	ELS/OELS/HLS	Where the money was headed would depend whether organic parts of the farm would remain organic but would maintain some environmental features
8	OELS	Intend to continue farming organically using same practices as under OELS scheme
9	None	N/A, farm to remain intensified
10	ELS	End of AES but retain some environmental measures on farm
11	HLS	Keep HLS scheme
12	ELS	End of AES but retain some environmental measures on farm