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Researching controversial and sensitive issues: using visual vignettes to explore farmers' attitudes towards the control of bovine Tuberculosis in England

Abstract

This paper addresses the potential difficulties associated with researching controversial and/or sensitive issues. Drawing on the findings from in-depth interviews with farmers, the paper provides a reflexive commentary on the use of visual vignettes to explore farmers' attitudes towards the control of bovine tuberculosis in England - currently a highly controversial subject. Five short video clips were shown to interviewees to prompt discussions about different aspects of disease control, including methods to vaccinate and cull badgers. Visual vignettes have not been used widely outside the fields of health and social care. The method is used here to encourage interviewees to discuss sensitive issues related to badger control, including their trust in various stakeholders involved in the management of bovine tuberculosis, their own knowledge and understanding about disease control, and their attitudes towards control methods. The results suggest that visual vignettes have a number of advantages that could benefit research in human geography and the wider social sciences.

Key words: England, bovine TB, badger culling, badger vaccination, visual vignettes, semistructured interviews, controversial and/or sensitive issues, farmers' attitudes.

Introduction

Researching complex and controversial issues requires an appropriate research approach in order to elicit potentially sensitive or emotional information from participants. While researching sensitive issues has been well-addressed in the fields of health and social care, they have received less attention in other areas within the social sciences, including human geography, although some work does cover sensitive topics, especially in relation to social and environmental issues such as homelessness (Cloke et al. 2010), sex work in cities (Hubbard et al. 2013), binge drinking and drinking cultures (Jayne et al. 2006), nuclear power (Parkhill et al. 2010), GM foods (Herrick 2005), climate change (Demeritt 2012). This paper contributes to this work by reporting on the use of visual vignettes as an innovative research method to explore the current and controversial subject of the control of bovine tuberculosis (bTB).

To date, visual vignettes have not been utilised much in human geography as a methodological tool. We suggest here that the method has much to offer researchers as a complement to more conventional interviewing formats, especially when used to examine environment/society/space relations. The use of visual vignettes in researching sensitive and/or controversial issues thus has some important benefits. One aim of this paper, therefore, is to explore whether the benefits can be translated outside health and social care research. This approach was adopted to explore farmers' attitudes towards the control of bTB, a respiratory disease affecting cattle in the UK. The control of bTB involves addressing the disease in cattle as well as in the native badger population which carries and spreads the disease. This potentially involves the vaccination or culling of badgers, a protected species in the UK. The research is thus situated within a particularly complex and controversial policy context, as discussed by a number of academics (see Enticott et al 2012, Cassidy 2012, Atkins and Robinson, 2013, Fisher 2013, Maye et al, 2013). Additionally, the subject is

highly emotive for farmers, many of whom have experienced significant emotional and financial impacts as a bTB outbreak on a farm requires the slaughter of infected cattle and the application of movement restrictions (Fisher 2013). The study, which involved presenting farmers with a number of short video clips in order to encourage discussion around badger control, is used to reflect on the wider use of visual vignettes within human geography. The paper is structured as follows. It begins by addressing the problems associated with researching controversial and/or sensitive issues, with a particular focus on methodological approaches adopted in previous studies. The methodology adopted in this paper is then detailed. This is followed by a discussion on some of the findings from the in-depth analysis of interviews, together with a reflexive commentary and evaluation of the adopted research approach. Some concluding remarks are provided in the final section.

Researching controversial and sensitive issues

The issues surrounding researching controversial and/or sensitive topics have been addressed by a number of academics (see, for example, Bahn and Weatherill 2012). Much of this work falls within the disciplines of health and social care, especially working with children, teenagers and vulnerable adults. A smaller, though significant, body of work has been undertaken on the possible issues surrounding research on attitudes towards potentially controversial policy developments among the wider population.

It is useful at this point to define what is meant by controversial, sensitive and complex issues. Firstly, a controversial issue is one considered to be subject to debate or dispute – debate about the science behind climate change and future predictions of physical and social impacts would be a good example here (Demeritt, 2012). Secondly, an issue can be sensitive if it is likely to give rise to emotive reactions and/or where someone may have difficulty speaking due to the social acceptability of their views or actions. Thirdly, an issue can

become complex where a wide range of factors may influence an individual's views towards that issue, or where the knowledge claims are highly contested.

Various methods have been adopted to address potentially sensitive and/or controversial issues such as interviews, focus groups and citizen panels. Within the social sciences, these methods are often qualitative in nature and emphasise the importance of gaining in-depth, rich data on a particular subject. This typically incorporates some form of structured, unstructured or semi-structured interview (see Hager 2010, Holtman et al. 2012). Interviewing is a well-established and arguably often taken-for-granted method regularly employed by human geographers to elicit opinions, produce knowledge and to study how people experience and make sense of their lives in multiple contexts. A number of research articles and methods texts review in some detail the use of interviews across the social sciences and a general assessment of the method is not required here (see for example May 2003; Valentine 2005). Instead, this paper reflects on their use in combination with visual vignettes as part of larger longitudinal study to examine farmer confidence in badger control methods.

Interviews have a multiplicity of uses and are often commended as a research method for their flexibility and ability to explore difficult issues in a comprehensive and sensitive manner. DiCicco-Bloom and Crabtree (2006) explain how careful consideration of interviewing methods can provide opportunities for the researcher to build trust and rapport with participants, as well as allowing flexibility in terms of how the researcher and the research are presented. Taking this further, Murry et al. (2009) emphasise the advantages of undertaking multiple interviews with the same participants in order to establish trust and rapport between the interviewer and interviewee. Booth and Booth (1994, 417) describe oneoff interviews as a 'hit and run' approach in which it is difficult to establish a sympathetic understanding of the participant's situation. The importance of longitudinal explorations of sensitive topics has been noted throughout the literature, especially when research participants are situated in changing contexts. For example, Mort et al (2004) adopted a 'mass observation' approach to help gain an understanding of the "traumatic and devastating experiences" of those affected by the UK's 2001 Foot and Mouth Crisis. A citizen panel of 54 participants was recruited and participants were asked to produce weekly diaries over an 18 month period. The data were supported by in-depth interviews with each respondent, before and after the diary writing exercise, as well as 12 focus group discussions. The researchers note that the longitudinal nature of the research design allowed for the identification of "inconsistencies, contradictions, re-orderings and re-telling", which they suggest represent the chaos that the participants endured during and after the disease event (Bailey et al. 2004, 43).

While interviewing is the method most often adopted to explore potentially sensitive and controversial issues, other methods with a wider emphasis on participatory engagement have become popular. This includes citizen science, which has become popular because of its potential to develop 'scientific citizenship' and overcome lay–expert boundaries (see Riesch and Potter 2013). Critically, these approaches tend to involve group deliberations with a number of methods being implemented to encourage public engagement with the policy process and to elicit individuals' views in a group environment. These include focus groups, advisory panels and scenario workshops for example, but one method which has gained substantial interest within the social sciences is the use of citizens' juries. The approach presents evidence provided by experts on a particular issue to a group of participants (generally non-specialists) who are then asked to consider and deliberate on the evidence and put forward a set of conclusions.

Public engagement in policy making has been used to address a number of controversial policy issues. For example, a public debate known as GM Nation? was developed to address

the various controversies surrounding the growing of genetically modified (GM) crops and their use in food products in the UK. The public dialogue formed part of a three-strand programme which also involved reviewing the science of GM and examining the economic implication of commercialisation. Each of the three strands was designed to inform and complement the others. This form of public dialogue involved a series of discussion groups and online forums including members of the public not previously engaged with such issues. Both qualitative and quantitative data were collected and analysis showed an important lack of knowledge about the issues being addressed; this raises questions about the ability to fully ascertain participants' opinions and attitudes about a particular subject on which they are not fully informed. While these group deliberation approaches are very valuable, they rely on bringing individuals together to discuss a particular subject and attempt to reach a group consensus. This may not always appropriate in the context of personally sensitive issues like bTB. In some cases, it is necessary to examine and collect a diversity of attitudes, thereby capturing individual, in this case, farmer voices rather than that of a group. The advantages and disadvantages of these methods in the context of researching controversial and/or sensitive issues are outlined in Table 1.

Table 1: Strengths and weaknesses of different methods used in researching controversial and/or sensitive issues.

Method	Strengths	Weaknesses
Telephone interviews	Interviewee maintains a level	Difficulty building trust and
	of anonymity from the	rapport between interviewer
	interviewer	and interviewee.
		The interviewer is unable to
		monitor the interviewees'
		body language.
Face-to-face interviews	Interviewer can build trust	The interview may become
	and rapport with the	emotional due to the nature
	interviewee on a one-to-one	and sensitivity of the
	basis.	discussion.
	Interview can be conducted	The interviewee may feel

Fogus/disquesion groups	in a location that is familiar to the interviewee (e.g. their own home) Time for in-depth discussion. Interviewer can prompt interviewee to expand on particular points. Interviewer can respond to the body language of the interviewee.	uncomfortable if prompted to expand on an emotive issue.
Focus/discussion groups	Participants may feel more comfortable voicing potentially controversial views if others in the group share their ideas	Participants may feel forced to adhere to the general consensus of the group and not voice points of descent. Particular participants may dominate the discussion.
Citizen panels	Provides a forum for researchers to communicate evidence to the public about complex issues and for the public to question 'experts' on a particular topic. It is possible to develop a balanced argument/appraisal of an issue, which is deliberated by a jury/panel	Jury/panel deliberation will be influenced by the strength of the case put forward, so potential for bias unless carefully managed. Participants in a jury/panel may be influenced by the views of others when voting
Scenario workshops	Participants may be more willing to speak openly about hypothetical scenarios rather than their own experiences.	Discussions about scenarios may not provide an exact indication of participants' feelings towards, or potential reactions to, a real life situation.

A conventional interview approach was considered suitable for this study of bTB; however, due to the longitudinal nature of the project and the need for on-going participation, the interview approach needed to be interesting and focused. After considering a range of interactive approaches, the use of visual vignettes was selected. This approach is discussed in more detail in the following section.

Vignettes: verbal and visual

While face-to-face interviews and discussion groups have been quite widely advocated to explore sensitive research subjects, some potential limitations must be noted. Most significantly, understanding participants' opinions about a particular issue often relies on either their recollection of feelings towards a specific situation in the past and/or their spontaneous reaction to an issue about which they may not be fully knowledgeable (De Vet 2013). In order to address these limitations, Alexander and Becker (1978) advocated the use of stimuli to gain a detailed understanding of human attitudes, as they can be used to represent a real-life decision making or judgment-making situation rather than simply discussing potentially abstract social interactions. They therefore recommended the use of verbal vignettes - a short description of a person or situation to guide discussions with an interviewee. Verbal vignettes have been well-used by social scientists to elicit attitudes and beliefs about complex and potentially sensitive situations (see Soleri and Cleveland 2005). The approach has most often been used in the fields of psychology and health care (see Hughes and Huby 2002), but researchers have suggested that verbal vignettes (scenarios) would benefit other areas of study (Finch 1987). Verbal vignettes have been used in a variety of ways and are sufficiently flexible to encourage the research participant to consider the issue being presented in different ways. For example, some researchers have purposely presented participants with vignettes which may be unclear or vague in places in order to stimulate discussion, which is particularly useful when used in a focus group context (Bloor et al. 2000).

Building on the verbal vignette approach, Punch (2002) advocates the use of visual vignettes, emphasising the usefulness of having a concrete visual example to discuss broader related issues. Having a visual stimulus does not rely on spontaneous recollection by the interviewee, but instead encourages discussion about the specific issues in the video clip; it also acts as a 'memory-prodding technique' (Punch 2002, 51). Studies that have used visual vignettes report many advantages and positive reactions from interviewees. For example, Schoenberg and Ravdal (2000) suggest that visual vignettes encourage the interviewee to think beyond his or her own experiences, whilst also being an enjoyable and creative methodological tool. Visual vignettes are also promoted for their ability to elicit interviewees' immediate, spontaneous attitudes to potentially controversial issues (Borko et al. 2007). While the majority of studies employ vignettes to depict a particular event or situation, they can also be used to provide 'concrete examples of people and their behaviours on which participants can offer comment or opinion' (Hazel 1995, 2). In this way, the visual vignette technique allows for the elucidation of interviewees' perceptions, opinions, beliefs and attitudes of particular situations.

Applying visual vignettes to bovine TB research

This paper draws on findings from a longitudinal study exploring farmers' attitudes towards, and confidence in, various methods of bTB control, with a particular focus on badger vaccination.

The study context

The study involved a series (3) of annual repeat interviews with 65 farmers, sampled from a telephone survey of 338 farmers in 2010. The farmers were selected from three case study areas: Stroud in Gloucestershire, where the Badger Vaccination Deployment Project

(BVDP)¹ is currently underway; and two other study areas in Devon and Cheshire/Staffordshire. All three research areas have a high incidence of bTB.

This paper concentrates specifically on the second round of interviews, undertaken in the autumn and winter of 2012. However, it is important to note that these interviews built upon the first round, which explored respondents' general attitudes towards, and experience of, bTB and the vaccination of both cattle and badgers. Among the key findings from the first round of interviews were farmers' lack of trust in some of the key bTB stakeholders (particularly the government), a limited knowledge and understanding of badger vaccination, and the identification of a core set of beliefs about wildlife and disease which have an important influence on their attitudes (for details, see: Enticott et al 2012; Enticott et al forthcoming; Maye et al 2013; Maye et al forthcoming). The second round of interviews was designed to further explore these issues. In order to help build trust and rapport between the interviewer and participant, the same researcher revisited the same participants each year. One of the most significant considerations when undertaking a longitudinal study such as this is maintaining participation and avoiding attrition. It was thus essential to maintain the intervest of participants by ensuring that each interview phase was stimulating and different.

Selection of video clips

The visual vignette methodology was considered appropriate to further explore issues raised by both the telephone survey and first round of interviews. Five short video clips (each roughly two to three minutes in length) were used to stimulate detailed discussions with 56 farmers (there was an attrition rate of 9 farmers from the first round of interviews). The clips, already in the public domain, were selected after a series of meetings within the research

¹ The BVDP involves trapping and vaccinating badgers in a 100km² area in Gloucestershire. The project aims to explore the practicalities of employing an injectable vaccine and building farmer confidence in the use of badger vaccination.

team. Each clip addressed a certain aspect of bTB control and included a commentary from a potential influencer including a politician, a farmer and a vet. The aim of the exercise was two-fold. Firstly, the interviewees were asked about their feelings towards the situation being shown on the video; and secondly, their attitudes towards the commentator. The five clips are summarised in Table 2, together with an explanation for their selection in terms of the area of bTB being addressed and the reasons why the subject matter may be considered controversial, sensitive and / or complex. :

Clip	Area being addressed	Nature of controversy/sensitivity/complexit
A presentation by a Fera ² ecologist exploring the role of on-farm biosecurity (badger proofing farm buildings). (http://www.youtube.com/ watch?v=sQruxKTIG0Q)	 Interviewees' views on the implementation of biosecurity measures on their own farms. In particular, exploring their views around efficacy and costs. Interviewees' views on the FERA representative and farmer featured in the 	y Current uptake of biosecurity measures has been low among farmers with doubts surrounding efficacy and cost/benefit (Fisher 2013). Farmers have been criticised for not taking enough action and they may be reluctant to discuss their own biosecurity practices. Discussions around this topic may therefore be
Badger vaccination being undertaken by a team of scientists from Fera. This clip is taken from a video produced by the National Trust (http://www.youtube.com/ watch?v=bYOOpGAVZa Y)	clip 1. Interviewees' views on badger vaccination including practicality and efficacy. 2. Interviewees' views on the FERA veterinary representative featured in the clip	sensitive. This is a complex area of the bTB debate as badger vaccination is a relatively new control measure and interviewees' views are likely to be influenced by a wide range of factors including knowledge, understanding of the method and past experience.
An interview with the former Minister of State for Agriculture and Food, Jim Paice, speaking about the Government's proposals for bTB control taken from an episode of	 Interviewees' views on current government policy. Interviewees' views on the former Minister (including trust and confidence) 	The bTB policy at the time included a range of control measures including badger culling (by free shooting), which had received significant attention by the press. Due to the protected status of the badger, a decision to

Table 2: Summary of the five video clips used to examine badger control

² The Food and Environment Research Agency is running the BVDP in the Gloucestershire study area.

Countryfile (4 th September 2011)		cull was considered controversial. Farmers' views towards the government and its representatives have been shown to be complex, influenced by a wide range of factors including past experience, perceptions of their competence and trustworthiness (see for example Fisher 2013).
An interview with badger ecologist Dr Chris Cheeseman, who raised a number of concerns about the proposed badger cull taken from an episode of Countryfile (4 th September 2011).	 Interviewees' views on badger culling, including safety and efficacy. Interviewees' views on scientists. 	As noted above, badger culling can be considered controversial. As with government, interviewees' views on scientists are likely to be complex, influenced by a wide range of factors.
An interview shown on a 2002 Newsnight episode with a Devon farmer who defended shooting a badger on his farm.	 Interviewees' views on the illegal culling of badgers by farmers. Interviewees views on a farmer who has undertaken illegal badger culling and considered by some to be an industry representative. 	Again, badger culling is considered controversial. However, in this context it is also highly sensitive as interviewees are being asked to discuss illegal activities which they (or others) may have undertaken.

Permission to use the video clips was gained from the producers. The selected clips were edited to ensure that they were short enough to be easily incorporated into the interviews, but that enough information was provided to stimulate in-depth discussions with the interviewees.

Interview schedule design and analysis

A semi-structured interview schedule was developed to guide the discussions around the video clips. The clips were shown to interviewees on a tablet computer. This was important as it was very unobtrusive and did not require the researcher to set up a lap-top or the interviewee to have their own computer or DVD player. The schedule posed a set of questions to the interviewee after each video clip.

Each interview was recorded, transcribed verbatim and analysed using the qualitative analysis software NVivo9, which allowed for the coding of the data as key themes emerged. Some of the results from this analysis are presented in the following section as a way of reviewing the visual vignette research method.

Discussion and reflections

This section provides a reflexive commentary on the use of visual vignettes. The research approach was received positively by participants who engaged well with the video clips and in-depth discussions. After each video clip, the participants were asked for their initial reactions and to highlight aspects that they found particularly interesting or important; this provided an opportunity for the interviewee to take charge of the discussion. Participants spoke about the specific disease control measure featured in the video clip, as well as the individual or group that was featured. These are discussed in the following sub-sections.

Farmers 'reflections on disease control measures

Discussions around the video clips reaffirmed the complexity of farmers' views towards disease control. For example, when presented with the first clip showing CCTV footage of badgers entering farm buildings and having close contact with cattle, many interviewees voiced their surprise at the level of badger activity. For instance, one interviewee explained: "It's interesting seeing the pictures of it. It's more frequent than I would have expected" (dairy farmer in Devon). Similar sentiments were shared by another interviewee, as the following quote demonstrates:

"I'm surprised at the amount of activity shown; a picture paints a thousand words. It's interesting to see the badgers; they were well-used to coming into those buildings

from the behaviour that they were exhibiting e.g. the one sitting cleaning himself" (dairy farmer in Gloucestershire).

Previous studies have shown that the uptake of biosecurity measures among farmers is generally low (Bennett and Cooke 2005, Enticott 2008b, Gunn et al. 2008). This is for many reasons including practicality and cost (Gunn et al. 2008), as well as feelings of fatalism and a lack of confidence in the effectiveness of such measures (Enticott 2008b). In comparison to such findings, the first visual vignette identified a potential lack of knowledge among farmers in relation to the extent of badger activity in farm buildings and the need for evidence showing levels of activity before implementing biosecurity measures.

Bias towards particular control measures was also encountered during the discussions. Farmers have generally been found to favour culling over badger vaccination (see Bennett and Cooke 2005), although Warren et al. (2013) found that farmers would accept vaccination if combined with an effective programme of badger culling. Many of the participants in this study expressed scepticism towards the portrayal of badger vaccination shown in the second clip. For example:

"Personally I think it is a bit more orchestrated that the first film. The contact that I've had with badgers, they're not usually as docile and as friendly as that" (beef farmer in Devon).

"It's ridiculous, absolutely ridiculous. Was that a pet badger or something? ...You put a badger in a cage and go up to it with a pair of scissors he'd bite your hand off. It's a lovely day, they're in accessible woods, the badger looked like he'd been drugged or something; it's way off. They made it look as if they'd got the injection out of the car, walked a few paces, injected the badger, then go and that's it" (beef farmer in Devon). This reaction reaffirmed the general bias against badger vaccination among farmers identified by the previous round of interviews.

One of the most sensitive issues addressed by the visual vignettes was the illegal killing of badgers. Although this has not received significant attention from academics, a few studies have noted the difficulties associated with asking participants to discuss illegal activities that they may have potentially undertaken (see Enticott 2011, Cross et al. 2013). The final video clip, showing a locally-known farmer and amateur ecologist in Devon discussing the reasons for killing a badger on his farm, allowed this issue to become an acceptable point for discussion. However, it is worth noting that the intention was not to discern whether or not farmers had illegally culled badgers on their farm but instead to engage in a more general discussion about alternative ways to control badger numbers. The video clip thus enabled participants to discuss their opinions in a slightly removed manner by making reference to the video rather than their own actions, as demonstrated by the following quotes.

"You hear tales all the time in the pub about what goes on, whether there are licences or not, you don't need to be a genius to work things out, really, you see an awful lot of badgers on the roadside, so there is a certain amount of things like that that do go on". (dairy farmer in Cheshire)

"If I thought that there was a badger infected in my farm then I would want them dealt with. I can't think how anyone could let them have a slow painful demise." (dairy farmer in Devon)

Farmers' reflections on commentators

The discussions around the video clips aided a further exploration of farmers' trust in the organisations and individuals that were featured. For example, in relation to the third clip featuring the former Minister for Agriculture, Jim Paice, a number of participants commented on his manner and demeanour, as well as his farming background, as demonstrated by the following quote:

"You've got to have someone from a farming background to deal with this situation. When they had Hillary Benn for Labour, he was a vegetarian and a non-farming person. I think it's difficult to reason with people who don't sympathise with the cause. Jim Paice was at least on our side a bit more." (beef farmer in Gloucestershire)

In the fourth clip about badger culling, Dr Chris Cheeseman discussed the use of a shot gun in comparison to a rifle to shoot badgers. A number of the interviewees highlighted this point and voiced their frustrations in relation to Dr Cheeseman's representation of how the badger cull may be carried out:

"You wouldn't have been using a 12 bore to shoot a badger I wouldn't have thought unless they were very close. It's just going to injure it isn't it? Because that's what farmers have rifles for. Whatever makes him put the idea into peoples' minds that they're going to be shot with a shot gun, it's ridiculous. There's probably a hidden agenda in there I would have thought." (beef farmer in Gloucestershire)

Various interviewees highlighted what they perceived to be Dr Cheeseman's ignorance towards the industry and his lack of knowledge in relation to the practicalities associated with wildlife control. Such a reaction shows the importance that farmers place on local expertise and practical understanding of the industry; it also demonstrates a clear link to the level of trust that farmers have in a particular advisor or stakeholder. The importance of knowledge and understanding has been highlighted by other researchers. For example, Fisher (2013) found that farmers were unlikely to trust government advisors who they feel are unlikely to have any practical understanding of the farming industry.

Reflexive evaluation

The findings show that the visual vignette method provides a useful tool to explore potentially controversial/sensitive issues by allowing interviewees to take charge of discussions and focus on a particular issue that they consider important or interesting. The approach also encourages interviewees to speak about particularly sensitive issues such as illegal practices that they may otherwise avoid. In addition, the use of visual vignettes proved an innovative and engaging research method - important for maintaining participation in a longitudinal study, as raised by Booth and Booth (1994).

However, it is also important to note potential limitations with the use of visual vignettes. One disadvantage is that watching a vignette will be different from experiencing the same situation in everyday life. Consideration must thus be given to the potential impact on the interviewees' responses considering the distance between the vignette and a real life situation (Barter and Renold 2010). For example, farmers' reactions toward badgers entering farm buildings implied a fairly positive view about the potential uptake of on-farm biosecurity measures. However, other studies have suggested that issues such as cost and practicality may have a significant influence on farmers' attitudes. There is also evidence of social responsibility - farmers thus respond positively to biosecurity measures, including when shown video clip evidence, even though in practice many may not take them up. The stimulus was also limited to what was presented to the interviewees in the video clips. Although careful consideration was given to the selection and content of each video clip, the discussions were generally limited to what was featured and, as with any interview approach, may have missed some factors that the interviewees consider to be important in influencing their attitudes. These limitations can be overcome to some extent by careful development of an accompanying interview schedule to prompt the participants to speak widely around the subject. Nonetheless, as with any qualitative method, the potential subjectivity of the approach must be taken into account.

Conclusion

This paper has noted some of the difficulties associated with researching potentially controversial and/or sensitive issues. Care must be taken to develop an appropriate research approach that will enable interviewees to speak freely about their feelings and opinions without feeling threatened or confined by the research situation. The visual vignette method provides a useful approach to elicit detailed information about controversial and/or sensitive issues that may not have been addressed in a conventional interview schedule.

The approach was successfully used to further explore farmers' attitudes towards the control of bTB, with a particular focus on the disease reservoir in badgers. In particular, the five short video clips identified a number of concerns held by farmers including those relating to trust in advisors and the organisations involved with managing the disease; the important connection between farmers' trust in stakeholders and their perceptions of the levels of practical farming knowledge that they hold; and the need for evidence and further information, particularly in relation to on-farm biosecurity. However, some limitations of the approach have also been noted including the 'space' between the vignette and real life, as well as the potential subjectivity relating to the selection of the video clips. Nonetheless, the paper has shown that visual vignettes have the potential to explore sensitive issues outside the fields of health and social care. Their use is engaging and unobtrusive, and the method may allow interviewees to speak about issues that they may otherwise be less likely to discuss, such as the illegal killing of badgers.

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References

Atkins PJ and Robinson PA 2013 Coalition culls and zoonotic ontologies Environment and Planning A 45 1372-1386

Bahn S and Weatherill P 2012 Qualitative social research: a risky business when it comes to collecting 'senstive' data Qualitative Research 13(1) 19-35

Bailey C, Convery I, Baxter J and Mort M 2004 Narratives of trauma and on-going recovery: the 2001 foot and mouth disease endemic Auto/Biography 11 37-46

Barter C and Renold E 2010 'I wanna tell you a story': Exploring the application of vignettes in qualitative research with children and young people International Journal of Social Research Methodology 3(4) 307-323

Bennett R M and Cooke R J (2005) Control of bovine TB: preferences of farmers who have suffered a breakdown The Veterinary Record 156 143-145

Bloor M, Frankland M, Thomas M and Stewart K 2000 Focus Groups in Social Research Sage, Thousand Oaks, CA

Booth T and Booth W 1994 The use of depth of interviewing with vulnerable subjects: Lessons from a research study of parents with learning difficulties Social Science and Medicine 39(3) 415-424 **Cassidy A** 2012 Vermin, Victims and Disease: UK Framings of Badgers In and Beyond the Bovine TB Controversy Sociologia Ruralis 52(2) 192-214

Cloke P May J Johnsen S 2010 Swept up Lives: Re-envisioning the homeless city Oxford, Blackwell.

Cross P, St.John F, Khan S and Petroczi A 2013 Innovative techniques for estimating illegal activities in a human-wildlife-management conflict PLoS ONE 8(1) doi:

10.1371/journal.pone.0053681

Demeritt D 2012 Climate change and society Geography 97 (1) 167-167

De Vet E 2013 Exploring weather-related experiences and practices: examining methodological approaches Area 45(2) 198-206

DiCicco-Bloom B and Crabtree B 2006 The qualitative research interview Medical Education 40 314-321

Enticott G 2008a The ecological paradox: social and natural consequences of the geographies of animal health promotion Transactions, Institute of British Geographers 33(4) 433-446

Enticott G 2008b The spaces of biosecurity: prescribing and negotiating solutions to bovine tuberculosis Environment and Planning A 40(7) 1568-1582

Enticott G 2011 Techniques of neutralising wildlife crime in rural England and Wales Journal of Rural Studies 27(2): 200-208.

Enticott G, Maye D, Ilbery B, Fisher R and Kirwan J 2012 Farmers' confidence in vaccinating badgers against bovine tuberculosis. Veterinary Record. 170(8) doi: 10.1136/vr.100079

Enticott G, Maye D, Naylor, R, Ilbery B, Kirwan J Badger vaccination: Dimensions of trust and confidence in the governance of animal disease. Environment and Planning A, forthcoming.

Finch J 1987 The Vignette Technique in Survey Research Sociology 21(1) 105-114

Fisher R 2013 'A gentleman's handshake': the role of social capital and trust in transforming information into usable knowledge Journal of Rural Studies 31 13-22

Gunn G J, Heffernan C, Hall M, McLeod A and Hovi M 2008 Measuring and comparing constraints to improved biosecurity amongst GB farmers, veterinarian and the auxiliary industries Preventive Veterinary Medicine 84(3-4) 310-323 **Hager C** 2010 Whom do you trust? Information seeking during the UK Foot and Mouth crisis Library and Archival Security 23(1) 3-18

Herrick C B 2005 'Cultures of GM': discourses of risk and labelling of GMOs in the UK and EU Area 34 (3) 286-294

Holtman Z, Shelmerdine S, London L and Flishee A 2012 Suicide in a poor rural community in the Western Cape, South Africa: Experiences of five suicide attempters and their families South African Journal of Psychology 43(3) 300-309

Hubbard P Boydell S Crofts P Prior J and Searle G 2013 Noxious neighbours? interrogating the impacts of sex premises in residential areas. Environment and Planning A 45 (1) 126-141.

Hughes R and Huby M 2002 The application of vignettes in social and nursing research.

Journal of Advanced Nursing 37(4) 382-386

Jayne M S Holloway and G Valentine 2006 Drunk and disorderly: alcohol, urban life and public space Progress in Human Geography 20 (4) 451-468

May T 2003 Social Research: Issues, Methods and Process 3rd edition Open University Press

Maye D, Enticott G, Ilbery B, Fisher R, Kirwan J (2013) Assessing farmer confidence in

badger vaccination: some findings from a survey of cattle farmers in England. Journal of

Rural and Community Development 8(3): 49-64.

Maye D Enticott G Naylor R Ilbery B Kirwan J Animal disease and narratives of nature: Farmers' reactions to the neoliberal governance of bovine Tuberculosis. Journal of Rural Studies, forthcoming.

Mort M, Convery I, Bailey C and Baxter J 2004 The Health and Social Consequences of the 2001 Foot & Mouth Disease Epidemic in North Cumbria Report to the Department of Health. Lancaster University

Murry S, Kendall M, Carduff E, Worth A, Harris F, Lloyd A, Cavers D, Grant L and Sheihk A 2009 Research methods and reporting: use of serial qualitative interviews to understand patients' evolving experiences and needs British Medical Journal 399(7727) 958-960

Parkhill, K A, Pidgeon, N F, Henwood, K L, Simmons, P & Venables, D 2010 From the familiar to the extraordinary: local residents' perceptions of risk when living with nuclear power in the UK Transactions of the Institute of British Geographers 35 39-58.

Riesch H and Potter C 2013 Citizen science as seen by scientists: Methodological,

epistemological and ethical dimensions Public Understanding of Science doi:

10.1177/0963662513497324

Soleri D and Cleveland D A 2005 Scenarios as a tool for eliciting and understanding

farmers' biological knowledge Field Methods 17(3) 283-301

Valentine G 2005 Tell me about...: using interviews as a research methodology. InFlowerdew R and Martin D eds Methods in Human Geography: A guide forstudents doing a research project. Pearson Education, Harlow

Warren M Lobley M and Winter M 2013 Farmer attitudes to vaccination and culling of badgers in controlling bovine tuberculosis Veterinary Record 173(2) doi:10.1136/vr.101601