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Understanding local community construction through flooding: the 'conscious community' and the possibilities for locally based communal action

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Communities, in particular geographically based local communities, have become a key site for disaster intervention, often expressed through the promotion of 'community resilience'. However, the complexity of the community concept or the potential difficulties of such an approach are not always appreciated. Qualitative semi-structured interviews with residents in flooded localities in both urban and rural contexts in northern England reveal a complex relationship between attachment to the locality, communal identities and local networks. This relationship is explained through the proposed concept of the 'conscious community', which builds on the conceptualisation of community as a structure of meaning, to show how the cultural, spatial and social elements of local community creation are inextricably linked. The local communities created by residents could take very varied forms, and so their ability to take on the tasks increasingly expected of them in a shift to a localised and community-based approach to flood risk management (FRM) was also very varied. In the urban context the flood experience proved a significant factor in community construction, and thereby responses to subsequent flooding. Residents did much to help one another, both physically and emotionally, but it cannot be assumed that the largely informal networks of the 'conscious community' are able to take on more formal FRM tasks. Yet a better understanding of local community construction could allow practitioners to utilise, support or build on local structures to enable local communities to be better prepared for flooding.

Key words flooding; England; qualitative; local; community; resilience

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Introduction

In recent years 'communities' have become a key focus in both theoretical and policy approaches to flooding and other 'natural disasters', at international and national scales (Cannon 2008; Wilson 2012). 'Community resilience' has become an often stated aim but, this process started before the recent 'resilience renaissance' (Weichselgartner and Kelman 2014). In a shift towards a local and participatory approach residents 'at risk' are expected to work together to promote their own community resilience (Johnson and Priest 2008; Deeming *et al*. 2012; Welsh 2014). It is argued, however, that the complexity of the concept of community is not always fully addressed or the potential difficulties of such an approach fully appreciated (Cannon 2008; Twigg 2010; Birkmann *et al*. 2012). As Day (2006, 2) warned 'community' is a highly problematic term, alluring in its promise but to be approached with extreme care'.

To tackle this 'community problem' the extensive social science literature is examined. This has been underutilised in disaster studies (Quarantelli 2005) and somewhat neglected in resilience approaches (Davoudi 2012). In turn, it is argued that the disruption of communities by floods causes 'moments of ontological disturbance' and so 'force thought' among those affected, enabling new insights into local community construction (Whatmore 2013, 39). Within the social sciences community is a complex, contested and evolving concept, being theorised, researched and defined in diverse and contradictory ways (Valentine 2001; Day 2006; Delanty 2009; Crow and Mah 2012). Some have even argued that the term has no conceptual value and should be abandoned (Stacey 1974) or that place-based local community has been destroyed (Bauman 2001).

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Indeed, academic conceptualisations began with a concern that community was being destroyed by industrialisation and urbanisation, a view that continues to shape expectations of community today (Day 2006). Since then, three major changes in conceptualisation are identified which place varying emphasis on the role of the locality (spatial), the networks (social) and the sense of shared identity (cultural), but it is argued none of these conceptualisations are able to fully address the interaction between the three. An exploration of residents' perspectives and experiences in northern England reveals that the spatial, social and cultural elements are inextricably linked and the concept of the 'conscious community' is proposed. This enables an understanding of residents' ability (or inability) to respond communally to flooding but also explains how varying discourses on local community are mobilised by residents to create social structures within a restricted locality.

The paper starts by considering the use to which the term community has been put in the disaster literature, as it moves from a focus on vulnerability to a concern with resilience. The article then charts the legacy, implications and weaknesses of the changing conceptualisation of community. The methodology section sets out the constructivist grounded theory approach adopted and introduces the three fieldwork locations highlighting important contextual characteristics involved in community construction. The findings start with interviewees' conceptualisation of local community then considers each of the three aspects of the suggested concept of the conscious community (spatial, cultural and social) to examine the role each plays, how they are interconnected, and how this then shapes their flood response. The conclusion reflects back on the community concept, what the research has revealed and considers the implications for practice.

The concept of community

Community within the disaster context

Impacts from disasters at what might be called the 'community scale' have been known for some time and there is considerable evidence, for example, that events such as floods can create or reinforce a sense of community (Tapsell *et al*. 1999; Tapsell 2000) in what has been called the 'therapeutic community' (Fritz 1961; Barton 1969). In contrast, some research reveals the 'corrosive community' or 'conflictual community' where communities are weakened and divided leading to conflict (Erikson 1994; Freudenberg 1997). The move to the 'vulnerability perspective' recognised that disasters are socially constructed and largely derived from the political, economic and social context in which people live (Blaikie *et al*. 1994; Fordham 1998; Wisner *et al*. 2004) and led to research on individual or household impacts and responses (Twigger-Ross 2005) and social groups thought to be particularly vulnerable; such as older people, women, children, people with disabilities and the poor (Blaikie *et al*. 1994; Tapsell *et al*. 2003; Walker and Burningham 2011; Wisner *et al*. 2004). There has however been relatively little work specifically problematising local community impacts (Cannon 2008) and engaging with the conceptualisation of community, despite the recognised need (Buckle 1999).

The vulnerability approach has to some extent been overshadowed by resilience which has seen 'a spectacular rise in the term applied in a wide range of academic, policy and popular media' (Brown 2013, 1). Resilience is a contested term, stemming from an ecological and engineering perspective (Davoudi 2012) but now adopted by a range of disciplines and widely used in disaster studies, policy and management (Brown 2013; Welsh 2014) having rapidly moved from 'descriptive concept to a normative agenda' (Weichselgartner and Kelman 2014). However, as a number of authors have identified, the social science component of resilience is relatively new and weakly developed (Davoudi 2012; Berkes and Ross 2013; Weichselgartner and Kelman 2014). Resilience approaches often emphasise a return to 'normal' or the ability to 'bounce-back' (Davoudi 2012), which fails to take into account that in social systems learning may occur and social changes may be irreversible (Wilson 2012) and that change may be desirable if resilience is to be achieved (Whittle *et al*. 2010). There are also concerns that the resilience theories with their roots in the natural sciences and emphasis on 'rational' behaviour (Cannon and Müller-Mahn 2010) undertheorise the social dimensions (Brown 2013, 1).

There are many definitions of resilience but an examination of some of the more influential within disaster studies reveals both a focus on local communities as an appropriate level at which to take action (Bahadur *et al*. 2010; Wilson 2012) and some weaknesses in its treatment of the community concept. For whilst the '[r]esilience literature at the level of ecosystems is well developed … the same cannot be said for the local and community level' (Berkes and Ross 2013, 6). As Brown (2013, 6) notes there is a danger of romanticising community and people's capacities. A number of aspects essential to understanding community construction have been identified as needing further work. These include questions on the nature of locality, place and scale (Weichselgartner and Kelman 2014); the identification of boundaries within the 'system' (Bahadur *et al*. 2010) and related issues of power (Cannon and Müller-Mahn 2010; Wilson 2013), so for example, whose view dominates in the construction of community and its boundaries; the role of human agency in creating and maintaining and changing elements of the 'system' (Skerratt 2013); and cultural accounts of how social life is imagined, constructed and maintained (Hornborg 2009; Rival 2009; Wilson 2013). These factors perhaps explain the relative lack

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of engagement specifically with the *conceptualisation* of local community within this literature (Twigger-Ross *et al*. 2011) and the assumptions that community resilience is easily identified, achievable for all and uncontested (Brown 2013).

In the meantime resilience approaches are extensively restructuring policy and practice in disaster planning at both the international and national levels (Wilson 2013). In the UK the widespread floods of 2007 followed by the Pitt Review (Pitt 2008) was a particular driver in what Deeming *et al*. (2014) describe as a refocus on community resilience. This has led to the local scale being seen as the most appropriate for flood response, with a greater role for both local authorities through the creation of Lead Local Flood Authorities (LLFAs) (Twigger-Ross *et al*. 2014) and for citizens who are expected to be aware of their risks and be involved in taking steps to reduce them (Nye *et al*. 2011; Tseng and Penning-Rowsell 2012). Funding too has become more localised, with partnership funding aiming to provide more local choice and giving civil society a greater role so as to 'better protect more communities' (DEFRA 2014, 2).

The desire to promote community resilience was operationalised as the non-statutory 'Strategic National Framework on Community Resilience' (Cabinet Office 2011, 6) and throughout the document a focus on local response is evident, despite their recognition of non-geographical communities (Cabinet Office 2011, 12). The programme aims to 'strengthen resilience at a local level' (p. 3) and to 'make community resilience relevant and workable in each local area/community' (p. 5). It states that communities will need to work together (p. 3) in a way that 'complements the response of the emergency services' (p. 4) and geographical communities are seen as the primary beneficiary of community resilience (p. 12). Similarly the *National flood and coastal erosion risk management strategy for England* (DEFRA 2011, 14) aims to 'ensure that decision making and ownership of risk management measures are as local as possible', promote a 'community focus' and 'help communities understand and actively prepare for the risks'. The assumption is that local people can and will work together to plan, respond and recover from risks more effectively in a way that supplements the formal response, although this has proved problematic (Twigger-Ross *et al*. 2011; Deeming *et al*. 2014). A 'community's resilience is often understood as the capacity of its social system to come together to work toward a communal objective' (Berkes and Ross 2013, 6), the question is whether there exists a communal relationship between people residing in the locality and if it does can it be harnessed and if it does not can it be created? So what can the social science literature offer in understanding this complex relationship between community and locality?

Community in the social sciences

Early academic conceptualisations of community dating back to the late 1800s set up a view which persists today through the 'community lost' discourse (Day 2006). This work focused on social relations within pre-industrial, relatively isolated and bounded locations (Bell and Newby 1971; Crow and Allan 1994) and so set in motion a lasting view of communities as small, rural, stable, largely self-sufficient, harmonious entities (Day 2006; Delanty 2009) which are by implication extensively networked and able to act as one. In this spatially deterministic approach community and local community are synonymous (Wellman and Leighton 1979) and in the English context the rural village is often seen to represent the ideal community (Valentine 2001).

Despite the criticisms that this was based on romanticised unrealistic notions of rurality (Williams 1973; Ilbery 1998; Pahl 2005), the association between the 'rural idyll' and community persists (Valentine 2001; Watkins and Jacoby 2007; Neal and Walters 2008). Work by rural geographers such as Bell (1994) in his study of 'Childerley' illustrate the lure of the rural community for the middle classes and the tensions this may cause between existing residents and incomers as different social meanings are played off against one another (Day 2006). In the creation of rural and community, meanings are deployed in complex and varying ways, and are dependent on the viewer's position (Amit and Rapport 2002). Despite evidence to show that community networks may exist in urban areas (Young and Willmott 1957), may extend beyond local confines (Wellman 2002), may be divisive or exclusionary (Matthews *et al*. 2000) or stigmatising (Watkins and Jacoby 2007) disaster policy discourses, including those from the community resilience perspective, often assume an existing, like-minded networked, moral community both willing and capable of taking action together (Cannon 2008; Brown 2013), even if this is not always associated with rurality.

Dissatisfaction with the original conception of the rural community, its inability to explain modern life, and fewer examples of such spatially confined lives led to the development of 'community saved' (Wellman 1979) or what could be called the network approach. Social connections, rather than space, became the defining feature, so that communities could be seen to take different spatial forms and could be found in urban as well as rural locations. Later developments understood community as liberated from the locality altogether, as networks become more stretched, moving from 'densely-knit' communities to 'networked-individualism' as various technologies speeded up travel and improved communications (Wellman 2002). A focus on networks remains popular, as can be seen in the continuing use of the widely publicised if controversial 'social capital' (Fine 2001).

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A social capital lens has been used to reveal how various types of networks may provide an important resource for coping with a variety of disaster types (for example, see Cox and Perry 2011; Dynes 2006; Hawkins and Maurer 2010). Social capital is also used as an important component in a number of resilience theories, for example see Adger (2000); Mayunga (2007); Murphy (2007). However, sociological theorists can find 'the metaphor of capital as reductive and constraining' (Pelling 2011, 4). This approach with its economic roots, and use of large, readily available quantitative datasets (Halpern 2005), focuses on measuring the quantities of particular types of networks, rather than an exploration of the quality and meaning of the relationships involved (Galston 1996). It has been criticised 'for presenting an overly romanticised account of complex community relations' (Kirkby-Geddes *et al*. 2013, 271) or simply repeating the old 'community lost' arguments (Greeley 1997; Day 2006). Cox and Perry's (2011, 395) wildfires study highlights the need to explore 'the fundamental connection between social capital and place' and associated issues such as belonging and identity.

Recognising that network approaches fail to tackle the enduring appeal of community and how meaning becomes ascribed at particular scales, re-theorisations during the 1980s took a cultural turn (Delanty 2009). Cohen for example argued that community was essentially symbolic and 'exists in the minds of its members … not in their structural forms' (Cohen 1985, 98). Benedict Anderson's (1991) influential notion of the 'imagined community' (also see Hague 2011) also understands boundaries to lie in the mind, rather than being rooted in local social relations (Neal and Walters 2008). This helps to explain community's ability to create a collective identity. However, the deliberate severing of the link between community and face-to-face social relations leaves no route to connect relationships and networks to the ideal of community (Amit 2002). Anderson's work has also tended to de-emphasise internal divisions and contradictions and to treat community as an unproblematic idea (Day 2006) ignoring 'the *practices* and exercises of power through which these [community] bonds are produced and reproduced' (Mitchell 2000, 269, italics in original). If as Massey (2004, 6) suggests 'places … are necessarily the location of the intersection of disparate trajectories, then they are necessarily places of "negotiation" in the widest sense of that term'. This renders deeply problematical any easy summoning of 'community' either as pre-existing or as a simple aim (Massey 2004). Indeed she argues that '"place" and "community" have only rarely been coterminous' (Massey 1994, page 147). To understand local people's ability or inability to act together to promote their resilience and respond to events requires an explanation of the creation of a communal identity based on the locality, how this links to network creation and maintenance and whose views come to dominate in this process.

Method

In order to access understandings and experiences of local community, semi-structured, in-depth interviews based on a flexible interview guide were used (Mason 1996). These were carried out with residents of the flood-affected areas and with staff involved in the management of floods in these locations. Purposive sampling (Mason 1996) was used to select a maximum variation sample (Ritchie *et al*. 2003) of stereotypical extremes of both urban and rural locations to explore the role these constructions play in the conception of community. A relevant 'range' (Mason 1996) of interviewees was sought along the characteristics of age, gender, occupation, household and family structure. Representatives of locally based groups were also interviewed. The material was analysed using a form of constructivist grounded theory which 'recognizes the mutual creation of knowledge by the viewer and the viewed, and aims toward interpretive understanding of subjects' meanings' (Charmaz 2000, 510) addressing some of the criticisms levelled at earlier forms of grounded theory (Charmaz 2000, 2006; Bryant 2002). Interviews were analysed at different levels: to investigate the social processes involved in dealing with floods and their aftermath but also to examine the constructions that lie behind the accounts and explore the ways in which discourses of local community are used.

Interviews were chosen in order 'to examine concrete instances of community formation as experienced by particular individuals, rather than take a point of departure in presumed categories …' (Fog Olwig 2002, 12). If communities are contested and negotiated then each person's view may be quite different, and in a focus group you may lose some of that variation to the group consensus or the loudest people (Neal and Walters 2008). Interview accounts showed subtle variations which could be compared and analysed, and examining how information travelled and gave some indication of the local network patterns. The interviews, for which participants were offered anonymity, also allowed residents to be critical of others or to share restricted knowledge. Neither place names nor interviewees' real names are used.

Three areas were selected: an urban estate on the edge of the City of Leeds and two small villages in north Yorkshire. All three locations experienced flooding following heavy summer rainfall either a year or two years prior to initial interviews taking place. Both those whose houses had flooded and those whose houses were not affected were included. Attempts were made to talk to representatives of all those organisations involved

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with residents in the fieldwork locations; this included the Environment Agency, various local council departments, the National Flood Forum and a water company. Only the water company refused to be interviewed. In total, 63 interviews with 54 people were carried out (some were repeat interviews with the same individuals). Tables of interviewee characteristics can be seen in the supporting material.

The fieldwork locations

The Upbeck estate, the City of Leeds

The Upbeck housing estate on the edge of Leeds City consists of eight streets and approximately 70 houses were affected by the flooding, in five of the streets. This area flooded three times following heavy rainfall, in August 2004, May 2005 and June 2007. The residents formed a Flood Action Group with assistance from the National Flood Forum. In the summer of 2007 a flood warden scheme was set up with the assistance of the Environment Agency and Leeds City Council. Although many areas of East Leeds are described as deprived and incomes are generally low the Upbeck estate had a good reputation and before the flooding was a sought after location. Thirty-four interviews with twenty-six people were carried out: 19 with residents, five with staff from organisations involved in dealing with the floods and two with members of the National Flood Forum. Interviews took place between 2005 and 2008.

Aylesby, North Yorkshire

Aylesby is an isolated moorland village with a small population of between 30 and 50 people. A flash flood in June 2005 destroyed bridges and left the village cut off. Access remained difficult for a number of months. One woman was almost washed away and later had to be taken to hospital by helicopter. Only a few people use the village as a base to commute. There was a small shop with a tea room, and a hotel with a bar; there was also a church and a village hall. In this small community 'everybody knew everybody' quite literally. Ten residents were interviewed in 2007.

Haylton, North Yorkshire

Haylton is larger than Aylesby, although still small in size for a village, and has a population of approximately 120. Haylton was also flooded in June 2005 by flash flooding and for a time was cut off. Approximately 18 properties were affected. There were a number of professionals who commuted some distance to cities and towns within the region. There were also some residents who had lived there all their lives. There was no pub or shop or church within the village. There was however a very active village social life based on the village hall and recreation field run by committees of residents. Eleven residents were interviewed in 2007.

Rural 'flood professionals' in North Yorkshire

For the two village locations seven interviews were carried out with 'flood professionals'. The spatial division of responsibility by different organisations involved varies, so that some organisations had responsibility for both villages and some for only one. Interviews were carried out with representatives of the Environment Agency, the County Council and the District Council.

Results and discussion

The following results are based on the analysis of the interviews with residents living in flood-affected locations (the negative term 'flood victim' is avoided). It is impossible to fully reflect the complexity and richness of the interview data but excerpts from those interviews aim to illustrate the points made and represent interviewees' concerns, giving them a voice, albeit a rather limited one (Denzin and Lincoln 2000). The analytical process ensured the findings were based on critical investigation of all the data and not simply a few chosen examples, avoiding 'anecdotalism' (Silverman 2000). The concept of the 'conscious community' was developed to explain the construction of local community as experienced by those interviewed. The framework in Figure 1 illustrates how this is made of three interlocking aspects; the spatial, social and cultural. The white arrows illustrate what is required to construct that aspect and the shaded arrows how flooding may provide such an opportunity. The following subsection discusses what residents understood by local community. The following three subsections focus on the conceptualisation of community and examine the creation and maintenance of this vision of local community, discussing in turn each of the aspects and how they inter-relate. The final subsection focuses more specifically on flooding and how the local communities constructed by residents shaped their ability to act together.

Visions of community

The shared experience of flooding led to a heightened community consciousness, revealing to residents those aspects of community that they valued, whether this was a reaffirmation of existing community structures or new ones arising out of the crises. In particular, the flood highlighted to interviewees the value of local networks and they appreciated the support (both physical and emotional) that other residents provided. The temporary isolation experienced in the rural locations made this immediate local assistance particularly important. In urban Leeds, residents' desire to help one another when flooded led to new social interactions where opportunities were previously limited and from this the development of new networks. Residents' understanding of local community echoed the 'traditional' view of community as a dense network of face-to-face connections

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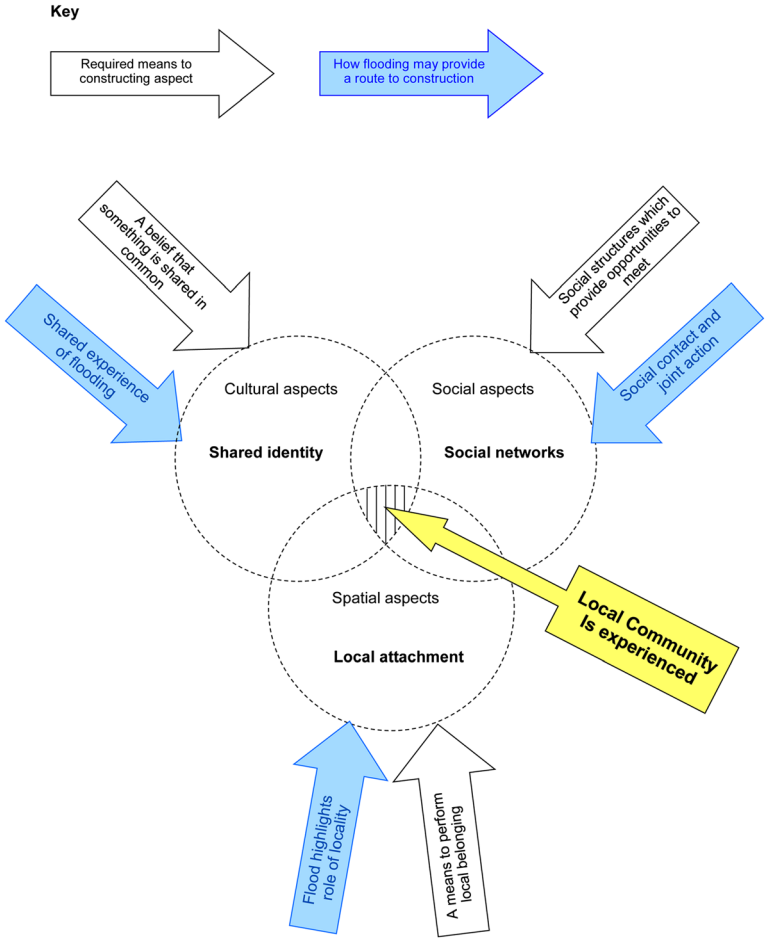

Figure 1 The construction of the conscious community and the role of flooding

between local people within a small defined area (Day 2006; Delanty 2009). They use the term in a normative sense and in its ideal form everybody would know everybody else; it would be 'tight knit and supportive' (William) and a place where 'people help each other out' (Elaine). For most interviewees this type of community was seen as desirable but not essential to satisfaction with their choice of residence. There were some exceptions; some felt this type of community intrusive whilst others claimed the presence of such a community an important factor in deciding where to live.

The boundaries assigned by residents do not necessarily coincide with external definitions. The association between community and networks led residents to define their local community at a small scale where this was at least possible. In Leeds, interviewees identified a housing estate of eight streets as the local community despite, to the outsider, these streets being indistinguishable from the others surrounding it. The relative lack of entry points to the estate were seen as conducive to community creation, by limiting through traffic and creating a sense of separateness. In the rural locations the villages were small enough and the networks sufficiently developed for the community boundaries to coincide with the village boundaries, although there was a certain amount of fuzziness to these as outlying farms were sometimes included depending on occupants' contact with villagers. Boundaries were small scale but often crossed; when deciding where to live and assessing what they liked about their local area, what could be reached outside of the boundary was as important as what lay within it. So particular visions of community led to an emphasis on dense, supportive localised networks which, in turn led to the creation of boundaries at small scale. Whilst a view of local community as spatially confined and with extensive networks persists, at least in some aspects, the original, relatively immobile way of life that may once have created some such 'communities of fate' (Pahl 2005) seems to have largely disappeared (Wellman 2002; Delanty 2009; Urry 2012). The following subsections examine how then the communities envisioned are created.

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Spatial aspects: creating local attachment

Community resilience is often understood as place-based resilience as illustrated by UK flood policy and its increasing emphasis on local response (Cabinet Office 2011; DEFRA 2011). This assumes some kind of connection between residents and the locality in which they reside. The relationship between people and their place of residence is also central to the notion of local community despite fears for its destruction (Clark 2007). The research found that the majority of residents interviewed did feel attachment to their locality but the routes to this sense of belonging varied. Three types of belonging were identified: belonging through familiarity, rooted belonging and belonging through participation. The route adopted has implications for the ways in which resilience activities may be supported or enhanced, with some more likely to lead to dense and active networks. The impact of floods also varied, so that belonging could either be reinforced or damaged. Some interviewees newly appreciated their local area whilst others decided to leave.

For some, relative immobility, family connections and familiarity remained important elements of their sense of belonging. Contrary to the usual stereotype where belonging is associated with a pre-industrial rural idyll (Neal and Walters 2008) this discourse of *familiarity* was prevalent in urban Upbeck where many had lived within a few miles their whole lives and members of their extended family also lived within a mile or two. In this discourse the local area was seen as known and therefore safe. For some this is linked to identity 'this is what I am … I've never wanted to live anywhere else' (John). Importantly the scale of this attachment is wider than the scale at which local community is identified and it is not associated with knowing many neighbouring residents. The *rooted* discourse, found mostly in Aylesby, was in many ways similar to the familiar one found in Upbeck. It was based on a lifetime spent in the locality and the presence of extended family close by. Where it differed was in the deep emotional attachment expressed for both the village and the surrounding countryside. Unlike the familiarity discourse, where community was felt to be absent prior to the floods, this attachment is expressed through the ideal of community. It is therefore connected to local networks.

For others, belonging could be achieved through participation – in community groups, activities and events – so that mobility need not be a threat. Belonging through *active participation* in the community was expressed by many and it is implicit in many discussions of community. However, it was in Haylton that this was most prominent and most clearly expressed, and it formed a central part of Haylton's identity as a community. Taking part in one or more of the many village-based activities provided a route for those not born locally to become an accepted part of the local community. Those routes to local belonging that link to participation in localised networks would seem to offer most potential for coordinated action in response to threats such as flooding, as can be seen in later sections.

Cultural aspects: creating a shared local Identity

The creation of a local identity is in some ways similar to that of belonging, but it concerns the means by which local people come to feel connected to one another rather than to the locality. These cultural or symbolic aspects of community construction are underexplored in the resilience literature (Hornborg 2009; Rival 2009) but if local people are to work together to promote their resilience some form of shared identity would seem necessary as the basis for network creation and shared aims. In each location, residents drew on different notions to construct a shared identity rooted in the place. For both Haylton and Aylesby this was a variation on the rural idyll, illustrating the continuing influence of earlier conceptualisations based on the rural–urban dichotomy. In urban Leeds the shared identity was absent prior to flooding and arose instead out of the shared experience of being flooded.

The ideal in Haylton is of an active 'village life' (Terry) where 'people get together and do things' (Thomas). This is constructed around the idea of *active participation* in village events as discussed above and so links to both ideas of belonging and the creation of social networks. Running alongside this notion of participation, where anyone can become a member, is a notion of local community arising from 'traditional families' with a historic connection to the village who are seen to embody and perpetuate 'community spirit' and provide a sense of connection to the past. Terry for example described the Carter family as the 'cornerstone of the village' and Thomas Carter as 'the father of the village'. Despite some tensions these came together in a way that reinforced one another, in contrast to research such as that by Pahl (1970) which found the incoming middle classes destroyed what they sought. One group provided tradition and historical connection whilst the other provided a 'good village' (Thomas) with many social activities. The village's effective response to flooding, providing practical and emotional support, reaffirmed and strengthened the collective identity. 'People were brilliant, but this, this is what you get in this type of community. They all pull together and help one another' (Geoff).

The rural identity in Aylesby is in some ways more complex, and more implicit than that of Haylton. There is less emphasis on participation, as the isolated location and presence of a pub and shop allows meetings to take place in an apparently natural way and the community

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boundaries are relatively unchallenged. For two couples from urban areas the 'rural lifestyle' and the associated notions of community are important. The village was seen to offer local community, in terms of supportive relationships, in a way that urban areas could not. 'If you're stuck you help each other out. I think that's why you live in a village' (Rebecca). These narratives of the rural were deployed reflexively recognising the idealised element. As Rebecca remarks 'I … had this pipe dream of living in the country. It was all a bit romantic really…' Some tensions existed over the 'proper' use of the countryside, with competing interests between tourism, the environment and local needs but interviewees felt themselves to be members of a cohesive community. The flood strengthened this shared identity, it 'brought the village closer together' (Lisa), and demonstrated residents ability to work together, a previously largely untested quality. Rebecca's remark that it showed itself to be a 'true community' highlights the importance of this aspect in community conceptualisation.

In contrast, in urban Upbeck a shared identity was absent prior to the floods, and had been constructed since, around the shared experience of flooding, leading to what John describes as a 'common bond'. The flood event also provided opportunities to meet as people helped one another and in the crisis situation the usual privacy barriers were overcome. As Sharon says of newly developing relationships 'Well I think that's the reason why you do get on so well with these people, because they know how you feel. They've been there, they've gone through exactly what you've gone through and you are able to support each other with that'. As the basis of a communal identity this has some weaknesses. In all three localities flooding affected a relatively small proportion of residents within the identified community and not even all those in the same street, creating two distinct groups. Those who have not been flooded 'don't know what it's like' (John) so the experience binds some whilst excluding others. For example a non-flooded resident was not seen as a legitimate leader of the newly formed flood group which caused considerable tension, leading eventually to a split into two groups. Despite these problems, nearly four years after the first flood it still provided a focal point for everyone on the estate:

> because it's the talking point isn't it? Even the people that are not directly affected, when they're coming in and out, stop and talk to all the people, because they're all out on the streets when it rains, you know looking to see how high it is, even people that it's not affected look over the beck now to see how high it's got, and everybody talks really.
>
> (John)

So although complex and fragile, a sense of shared identity has been created across the estate.

In all three locations, despite some conflicts, flooding eventually led to a reinforcing of the sense of a common local identity, largely because people felt they had worked together effectively to cope with the flooding and its aftermath. It is not suggested that all rural locations will have an identity based on some version of the rural idyll and all urban areas will be lacking in a shared identity, other notions may be mobilised to create a local identity (Dwyer 1999; Sherlock 2002). In creating a shared identity which allowed them to feel connected, residents drew upon place identities and spatial features in varied and complex ways. However, what came across clearly in all of the discourses of local community was the centrality of localised social networks. The following section considers the practicalities of constructing and maintaining these networks.

Social networks: creating local social structures (casual, organised, institutional and absent)

Interviewees valued local networks and drew on these during and after the flood event. How though are these networks created and maintained? The traditional sources of interaction, once expected to lead to community creation, such as education, religious observance, employment, maintaining extended family networks (Bell and Newby 1971; Day 2006), were no longer sufficient to create the types of networks that residents identified as being essential to local community. Their creation now required reflexivity and active efforts by residents, who had to set about consciously creating their own local structures, which could enable these types of networks to develop.

Three categories of local social structure were identified which could enable the construction of local networks in the conscious community: *casual*, *organised* and *institutional*. These may be present singly or in combination. There is also a fourth category where such structures remain *absent* as was the case in Leeds prior to flooding. Analysing the structures that residents have created, and which of the four types are present in a location and in what proportions, also enables an understanding of the local networks, both their quantity and their connectedness. These networks could be: *sparse* – very few local networks; *clustered* – some networks, in clusters with few interconnections; or *dense and interconnected* – numerous networks, with many connections. The type and extent of networks shaped the way in which information travelled around the community and residents' ability to act together in some way rather than independently.

Casual structures offer an opportunity for residents to meet informally in an unplanned way, for example in a local shop or pub. This type of structure was not the most widespread means of creating 'local community'

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networks but in Aylesby it was the predominant method for meeting other residents where it proved effective because of the small size and relative isolation of the village. Although offering an apparently 'natural' way to meet other residents, these types of structure still require support (e.g. making purchases at the village shop) and must be used largely by locals to be effective in creating localised community networks.

Organised structures are those created specifically by residents in order to provide an opportunity for locals to come together. Some examples in the fieldwork locations include a history group, an art group, keep fit sessions, whist drives, cricket matches, a sports day and a village Christmas party. These types of structures were most significant in Haylton where a village committee supported the various groups, and a strong notion of community as 'active participation' promoted their use. The networks produced were generally dense and interconnected but there was some clustering.

Institutional structures are where networks are formed through institutions such as schools, religious organisations or Parish Councils. These had a limited role as their associated networks were generally too widespread and diffuse but they played a significant part in Haylton where the Parish boundary coincided with both the village and the community boundaries.

Finally, there may be an *absence* of social structures and places which enable community members to recognise other community members and develop networks with them, as was the case in Upbeck prior to the floods, leading to *sparse* networks. This is not to say there is an absence of facilities or social opportunities locally. Rather the conditions are not such that these can create localised networks between potential community members within the boundaries identified by residents, even where interviewees had resided there for many years. In this context, small-scale spatial features, such as the shape and configuration of streets and residents' position within this, played an important role in the few networks that did develop.

Communal responses to flooding (unstructured, structured and formalised)

This section examines the many ways in which local people helped one another before, during and after flooding and the extent to which this is organised communal action rather than simply assistance that happens to take place within the community. Despite the range and complexity of constructions of community there was a widespread discourse which was present in all three locations, that of community as a resource, where local people are there when you need them, emotionally and/or practically. This offers considerable potential if it can be harnessed to resilience efforts. Three types of response are identified: *unstructured*, *structured* and *formalised*. These are closely linked to the types of local structures created by residents and the networks that then developed. *Unstructured* responses require no local networks but local support was more extensive where these existed. *Structured* responses exhibit some level of organisation, and *formalised* actions are where specific systems have been set up to cope with the flooding. Whilst the type of group response possible is reliant on existing communal systems, the repeat flooding in Leeds demonstrates that given time and commitment these structures can be developed to allow more systematic responses. However, there are a number of factors which may limit the local as a site for a collective response.

Unstructured responses were both common and widespread; they require no organisation and are not dependent on extensive local networks. These usually comprise spontaneous offers of help from one individual or household to another, and can be from flooded or non-flooded residents. Examples include moving furniture, offering food and drink, washing clothes and shopping. Residents do not have to be well known to one another as in the emergency situation the usual privacy barriers are overcome. In Upbeck following the first flood event, where local networks were few (*sparse*), the majority of aid from local people was of this unstructured type. People either helped those they know, usually immediate neighbours, or those they could see needed assistance, generally limiting aid to the street of residence. Where local networks are more widespread, assistance was less spatially restricted. In both Aylesby and Haylton word of the flood spread quickly and wide-ranging assistance was promptly offered. These unstructured offers of aid provide considerable assistance when most needed and can form the basis of improved community networks. However, they are communal only in that they take place within the community; more may be achieved when residents are able to come together to form a more systematic response.

Structured responses are more systematic types of social action, where people come together and organise to cope with floods. This would seem to be the type of response generally expected in the promotion of community resilience. Existing networks and structures play a much greater role, as group activity is very difficult where these are absent. These may develop over time but if flooding is unexpected then responses will be dependent on pre-flood structures. This category covers a wide variety of activities, from those that are only very loosely structured to those that require significant organisation. For example, Aylesby's dense village networks, together with the speed with which information travelled around the village, enabled villagers to quickly come together to clear roads of debris. This required minimal organisation as relatively few people were involved and so the largely *casual* local structures were

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able to cope. In Haylton, the organised and formalised structures readily lent themselves to organised action by residents; such as clearing roads and cleaning up a local business premises and the Chair to the Parish Meeting was able to act on the village's behalf in a number of ways. Although the flooding was unexpected and rapid, they were able to respond quickly and it was generally felt they had coped well. In Upbeck, with its sparse networks, immediate responses to the first flood were largely unstructured but as networks have developed, they have been able to create more structured solutions to flood-related problems. Residents came together to clean out the beck and an informal river monitoring system was developed. The setting up of the Flood Action Group has played a key role in the development of both more organised and formal responses to flooding. However, networks generally remain clustered around residents with most involvement in the flood action group, which may inhibit wider action involving the majority of the community.

Formal structures are those that have been set up specifically in order to deal with flooding, so are longer term and often follow one or more flood events. Aylesby residents gave no indication that they would develop a more formal response and the looser social structures based largely on casual meetings mean significant effort would be required to set up a formal system. In contrast, in Haylton a working group was set up to look at coping with future emergencies, although it was eventually decided that an emergency plan was not needed. Haylton was unusual in having the 'Parish Meeting', an institutional structure that operated at the same scale as the local community and formed a part of the communal identity. The more formal and democratic structures pre-existing within this type of organisation make it ideal for implementing emergency plans. It also has the advantage of being recognised, at least to some extent, by the various 'flood authorities' although these relationships were somewhat strained. In Upbeck, with its absence of community structures, a formalised response was developed not from the pre-flood 'community' but out of the structures which have been created in response to the flooding. This has been made possible through the support of external organisations, although overcoming mistrust and developing a good working relationship took considerable time and effort. Repeat flooding within a short timescale has led to the investment of time and money in this location. Given recent cuts it is uncertain whether such levels of support will be available in the future.

The local community offers some possibilities as a site for a coordinated flood response by local people; however, there are also some limitations. Some interviewees expressed a need to maintain a sense of independence, 'there was a strong feeling that people wanted to help themselves' (Charles) and this needs to be considered when offering assistance. A great deal of assistance came from networks beyond the local community. Extended family and friends provided an important resource in all three locations, both during the flood and in the long-term recovery period, even when they were located many miles away. Support was sometimes offered by strangers, for example, by owners of businesses similar to those affected or by people who had visited on holiday. It is important therefore not to discount or inhibit such support when promoting local community level responses. Finally, although this research has focused on responses by local people occurring within the locality, this is not to suggest that outside assistance and external resources are not needed or not important. As Twigg (2010, 9) notes, the 'level of a community's resilience is also influenced by capacities outside'. Given the concerns that 'community resilience' may be used as an excuse to withdraw important resources (Davoudi 2012; Porter and Davoudi 2012) or deny the state's responsibility (Welsh 2014) it should be remembered that even where locally based joint action was possible, valuable support was still provided by external sources, such as the emergency services, local councils, the Environment Agency, insurers, infrastructure providers and volunteers.

Conclusions

The research had two distinct but interrelated aims. To understand whether, as is increasingly expected of them, local residents in areas impacted by flooding could come together to respond communally to flooding but also to explore what this revealed about local community construction. Tackling residents' responses first, it is clear that whilst local people do much to help one another, both physically and emotionally, much of this lacks community-wide organisation. This can be explained by the concept of the 'conscious community' which addresses the latter aim. This suggests that we cannot understand community construction without paying attention to the social, the spatial and the cultural elements as these are inextricably interlinked. This builds on the conceptualisation of community as a structure of meaning (Cohen 1985; Anderson 1991) to understand how networks remain an essential part of how local community is 'imagined' (Anderson 1991) and that this in turn links to the scale at which boundaries are drawn and the expectations of the type and functions of those networks. The creation of the communities envisioned by residents required considerable reflexivity, were based on different visions, and were pursued in different ways and with varying degrees of enthusiasm. Conscious communities can therefore take very different forms or may be seen to be absent. Residents were no longer dependent upon the local community, as support and a sense of belonging

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was available from a variety of other sources and networks are dispersed. The three elements of the conscious community may therefore be experienced separately from one another or not at all. To be experienced as a 'good local community' all three aspects must be present.

The widespread ideal of community as a resource, of local people who will help when needed, formed a basis around which communal action could be organised and offers considerable potential for the greater involvement of local conscious communities in flood risk management (FRM). So too does the shared bond between those flooded and the potential for network creation that a flood event may offer, although this 'flood identity' may also be divisive. However, it is not clear how suitable the very varied, largely informal networks that were found in the research locations are to take on more formal flood-related tasks. If the conscious community model is used to understand local areas prior to FRM activities, then existing social structures and networks can be identified, effectively utilised and supported. Where networks are found to be clustered, efforts can be made to connect them. If networks are largely absent then it may be possible to create them, or to adopt a different approach. Existing strategies such as the use of 'community flood wardens' or the creation and implementation of 'community emergency/flood plans' (EA 2012) would also benefit from a greater understanding of the social context in which these will operate. There is therefore potential for at least some local-scale community responses.

The recognition of the social aspects of flooding and the involvement of local people in UK FRM (Nye *et al*. 2011) are in many ways positive but this must be based on a recognition of the social complexity and variation rather than an idealised vision of community harking back to a 'rural idyll'. Otherwise the shift to a local approach and the placing of more responsibility within local communities as seen in English policy will at best be of limited success and at worst likely to disadvantage those who have fewest resources. Similarly this warning applies to the worldwide move to promote community resilience which is influencing disaster-related policy and management. Whilst the relationships between the three elements of the conscious community will vary in different countries and cultures, there is no reason to assume the existence of an extensively networked 'local community' capable of organised action in whatever location and at whatever scale the relevant authorities desire. The impacts of policy changes, such as those in England, which shift much of the responsibility for disaster response to the local level and emphasise community resilience need to be examined. Who have been the winners and losers in this move and under what conditions has effective communal action been possible? The research supports those who have argued that resilience approaches must pay attention to issues of locality and place (Weichselgartner and Kelman 2014), boundaries (Bahadur *et al*. 2010), power (Cannon and Müller-Mahn 2010; Wilson 2013) and cultural accounts of social life (Hornborg 2009; Rival 2009). The relationship between locality and community is shown to be a complex one, where meanings of community, boundary construction and network creation need to be understood as complex, contested social and cultural phenomena that can vary considerably depending on the spatial context.

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