

Feeling secure or being secure?

Why it can seem better not to protect yourself against a natural hazard

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Abstract

This article presents qualitative research in flood risk areas of England that suggests that the desire to *feel* secure can sometimes deter people from taking actions that would reduce the actual physical damage of a hazardous natural event. That is, it argues that people sometimes put what Giddens calls their *ontological security* above their physical security. Preferring to think of their homes as places that are innately safe, they reject the idea of defending them; preferring to think of nature as a positive moral force, they hesitate to view it as a source of real danger; and preferring to think of society as a competent protector of last resort, they are reluctant to accept the need to protect themselves. Being central to ontological security, such social representations (of ‘home’, ‘nature’, ‘society’ etc.) are defended by avoiding perceptual shifts and behaviours that might challenge them. This paper discusses how and why they are defended, what happens when they become indefensible and why some householders and groups of householders are more willing than others to take self-protective actions against risks such as flooding.

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Although 60% of at-risk residents in England and Wales claim to be aware that they live in a flood risk area, only 6% of those with no experience of flooding have taken any action to prepare for floods and reduce possible damage, and this figure only rises to 39% for those who do have flood experience (Harries 2008). This paper asks why that should be the case and asks why some people do not implement measures to mitigate the risks posed by natural hazards even when they are aware of the existence of the risk and of steps they could take to reduce it.

The paper argues that people's apparently irrational refusal to prepare for flooding is functional when seen in the context of their own motivational priorities. Preparatory measures against hypothetical future flooding are eschewed, it argues, when they are seen to threaten the fundamental human need to feel secure.

A useful starting point for thinking about this question is Maslow's (1943) hierarchy of motivation (see Figure 1). According to Maslow, people prioritise some categories of need over others. Physiological needs and material safety, for example, take priority over

what he calls *esteem needs*, and perceived threats to the former will always be dealt with first. This hierarchy provides a useful conceptual framework for this discussion, and the ‘pyramid’ in which the hierarchy is often presented provides a useful visual image.

This discussion considers what happens when different threats apply within different temporal and epistemological frames of reference. What if one threat is perceived as certain and as applying in the immediate term, while another is perceived as doubtful and as applying only in the longer-term? More specifically, does the same hierarchy of need apply if protection of physical safety against a hypothetical natural hazard conflicts with the protection, in the immediate term, of needs that Maslow described as less fundamental? Evidence from interviews with householders in UK flood-risk areas suggests that it does not.

The rejection of flood-risk mitigation measures – and indeed, of the whole discourse of flood-risk mitigation – occurs, the research suggests, because they are perceived as endangering other needs that are more immediate and pressing. Thus, behaviour that might at first glance seem somewhat irrational is actually based on a more sophisticated version of the hierarchy presented by Maslow, and can be seen as entirely rational.

Figure 1 Maslow’s hierarchy of human needs

Flood hazard in the UK

The conclusions outlined above were drawn from research looking at the responses to a particular natural hazard – flooding.

Although flood events are still relatively rare and small-scale in the UK, over 1.5 million people in England and Wales have a greater than 1 in 75 annual chance of experiencing a flood (Evans et al 2004) and recent flooding in Hull, Sheffield, Gloucester and Tewkesbury (2007), Carlisle (2005) and Boscastle (2004) have kept flooding in the public eye and near the top of the public policy agenda. Furthermore, climate change, the urbanisation of river catchment areas and the growing trend to build on at-risk, brown-field sites are likely to increase the exposure to such risks (Evans et al 2004, McCarthy et al 2001, Smith & Ward 1998, Environment Agency 2003).

Floods can have a significant impact on households. Financially, the average damage amounts to £30,000 per home (RPA et al 2003). A third of all flood-victims also report long-term adverse physical affects (ibid, Tapsell et al 1999, WHO 2002, Tapsell et al 2002) and the anxiety, relationship strain and general disruption that comes in the wake of flooding is associated with increases in mental ill-health (Tunstall et al 2006, Tapsell et al 2003, Tapsell & Tunstall 2001).

Faced with these impacts and the likely growth in the frequency and severity of flooding, the UK Government is trying to encourage householders to adopt measures that limit damage floods to individual homes. The success of these efforts, however, has so far been moderate at best.

In trying to explain the failure of individual to protect themselves against known threats, researchers have traditionally focussed on the question of risk perception and have argued that if lay-people are not responding to natural hazards in the way that experts advise them, then they must have a distorted perception of the risks of flooding¹. If this distorted perception were corrected, they claim, behaviour would change. The frequent failure of public education campaigns to have a significant impact on hazard-response (see Kates 1962; Sims & Bauman 1983) has, however, called into question the validity of this perspective, and there is a growing realisation that people's understandings of hazards are the result of a process of social construction and not simply of perception and information.

The Research

The research outlined in this paper set out to understand that social construction of natural hazards. Sponsored by the Economic & Social Research Council and the Environment Agency for England and Wales, it involved semi-structured interviews and

¹ See, for example, Bostram et al (1992) and Atman et al (1994), who seek to identify gaps and misconceptions in people's understandings of risk situations in order that these can be 'corrected'.

focus groups with forty householders – some of whom had experienced floods, others of whom had not; some of whom were owner-occupiers and others of whom were tenants; and all of whom were aware that their homes were at risk of flooding.

Sampling for the research was *purposive*. In this form of sampling the aim is not to create a statistically representative sample but rather to provide adequate coverage of the most salient demographic criteria, which in this case were housing tenure and social grade.

Fieldwork areas were selected to facilitate this sample design. Thus, one of the four fieldwork areas consisted entirely of social housing, one consisted of mixed housing and three were dominated by owner-occupied homes. To further ensure as diverse a range of participants as possible, participants were recruited in person, on the doorstep, and were offered the choice of either an interview in their own home or a focus group at a local venue. As an extra incentive, a small cash gift was also offered in return for participation. In the achieved sample, almost half of respondents were from social grades A and B, about 15% were from social grades C1 and C2 and about a third were from social grades D and E. About two-fifths were tenants.

For a full discussion of the methods used, see Harries (2008).

To uncover the meaning structures that shaped these respondents' talk about flood risk, transcripts were analysed using what Fairclough (2003: 2) calls "textually orientated discourse analysis". This approach is founded on a tradition in linguistics that sees language as functional as well as communicative – as constituting reality, rather than just describing it (see Wittgenstein 1958, Austin 1962, Halliday 1973, 1994; also Potter and

Wetherell 1987). A discourse, in this conception, comprises the working assumptions that make life possible without being the subject of everyday reflection or conversation.

Drawing on ideas from Hajer (1995, 2002), Fairclough (2003) and Moscovici (1961, 1984), a ‘discourse’ is defined as:

an ensemble of ideas, concepts, categories and social representations through which meaning is given to physical and social realities, and which is realised through the linguistic features of spoken and written texts.

Findings

Few householders in this research express much concern about the protection of their physical safety or of their homes and possessions. What stands out, rather, is the desire to protect what Giddens (1991) calls *ontological security*.

According to Giddens, an ontologically secure person is someone who is free from existential doubts and who is able to believe that life will continue in much the same way as it always has – without threat to the familiar representations of time, space and identity.

This research suggests that this sense of security is sometimes protected by a *representational barrier* through which information about the world is interpreted and whose function is to prevent hostile representations from upsetting the comforting balance of existing assumptions about that world. By dint of this barrier, people are able to “cause the world to be what [they] think it is or ought to be” (Moscovici 1961: p57).

The use of this barrier could be described as an attempt to avoid *cognitive dissonance* (Festinger 1957) or as an example of the psychoanalytical phenomenon of *denial*. In this paper, however, the theoretical framework of *social representations theory* is used. This relates the phenomenon more closely to the social constructionist paradigm and draws attention to the particular constructions that keep this sense of security intact.

The paragraphs that follow describe the representations that appear in the data – the representations of ‘home’, ‘society’ and ‘nature’ – and the role they play in protecting ontological security. It is also argued that the desire to preserve these representations delegitimises the discourse of pre-emptive action and is therefore one explanation for the lack of householder action to mitigate flood risk.

The descriptions that follow use quotations from the interviews and focus groups to illustrate the use of the representations. For the benefit of the reader, and in the cause of brevity, the quotes included here provide the clearest and most overt demonstrations of the uses of the representations. More subtle examples of their use are not shown, for these would need lengthier commentary and the use of additional linguistic terminology that would also need to be explained. It should be noted, however, that not all householders in the sample used these representational barriers to the same extent, and that some, indeed, showed little sign of using them at all, seemed to have accepted the existence of the flood risk and were focussing on measures to reduce the potential material damage rather than on measures to protect their feeling of security.

The representation of 'home'

Of these representations, the most essential for the argument being made here is that of 'home'.

In Western societies, a representation of 'home' that includes the notions of continuity, safety, relaxation, privacy and familial affection symbolises, for many, the centre of their lives (Cooper 1976, Haraven 1993, Mallett 2004, Saunders 1989, Smith 1994). This idealised representation of 'home' remains important even where, as is often the case (Fitchet 1989, Mallett 2004, Douglas 1991), it does not reflect the lived experience. As people spend time in a house or flat, the routines they develop there, the aspects of their identities that they project onto the fabric of the building and the accretion of personal and inter-personal memories all imbue the place with their sense of who they are (Tuan 1974). Some writers, indeed, give 'home' a religious significance, seeing man's image of himself in his home as a metaphor for God's position in heaven. The home, from this perspective, is a fixed and sacred spot from which a person can create a version of the universe that fits in with his desires (see Cooper 1976). Any invasion of the home therefore undermines ontological security (Dupuis & Thorns 1998), and the temporary loss of home due to forced relocation after flooding is associated with deterioration in mental health (Ohl & Tapsell 2000, Tapsell et al 1999).

Amongst the sample in this study, the importance of representations of 'home' reveals itself in a reluctance to consider mitigation measures that would lessen the visual conformity of their homes to an idealised norm. The two following excerpts illustrate

this. The first is taken from an interview with a 46 year-old professional married homeowner who, two years previously, had come home to find that a sudden flash-flood had washed through the ground floor of her home. The second is from a focus group with home-owning professionals, who had also been affected by flash flooding.

Interviewer [...] If you were able to do things you could just leave in place and forget about... I don't know what that might be. It might be... raising your doorway for example; your floor a little bit; taking some measure permanently. Would that be better?

Martha Probably – if, let's say, um, cost permitting. And also, I think we don't really want to (*pause*) change it – I like my house to look nice – I don't want to have a door that is like a bit daft because I raise the (*laugh*). And each time when we have friends or people coming through, you say well, you know, 'can you please step higher' (*laughter*). That just, um – I don't know.

Charles Another thing. Our next-door neighbour has lived in the same house for really ages. They put in a cellar door because some of the water came from the road and went down the cellar stairs in front of the house. They put in a door, the sort of thing they use, you see in a submarine (*Sally laughs*) ...that you can seal

Terry With a hatch

Charles You know, so it's got

Phillip The full rotary...

Charles [*lots of laughter obliterates speech*]

Terry A periscope!

In both cases, the idea of making a home appear at all 'unusual' seems to provoke discomfort. A home, the respondents seem to be saying, should look 'nice' and not 'daft'.

It should conform to what one expects of a home and should not have doorways that oblige you to “step higher” or cellar doors like the doors “you see in a submarine”. Without these homely characteristics, I suggest, domiciles cease to possess the comforting characteristics that are associated with ‘home’; if the visual imagery is lost, then so is the entire representation – including the elements that provide the emotional security.

A third excerpt is taken from a focus group of working class respondents: Marc, an owner-occupier with living space in the basement; Freddy, a council tenant with his bedroom in the basement of his flat, and Pat, who lives in a terraced council house:

Interviewer [...] I mean someone I spoke to [...] he got this big whacking board that he can screw in across his front door. So it's cheaper. I don't know what it cost him – probably a hundred Quid or something like that – um...

Marc Yeah but then again, you'd feel like a prisoner (*laughter*) – a prisoner in your own home init (*laughter*)!

Pat yeah, prisoner in your own home!

Marc prisoner in your own home (*laughter*) [...] you might get squatters moving in while you're out! (*Laughter*)

Freddy the trouble is, you've got no flood coming in, but then a fire starts and you've had it! (*Laughter*)

Here, the respondents again defend the concept of the home as a place of conformity to norms, but they also represent ‘home’ as a place of safety and comfort. The idea of barring the gateway between home and the rest of the world is interpreted as restricting

freedom (“prisoner in your own home”) and inviting invasion (“you might get squatters moving in”) and danger (“then a fire starts and you’ve had it!”).

The laughter and hyperbole that characterise this excerpt are common to a number of the interviews. Although laughter is by nature ambiguous (Gregory 1999; Mulkey 1988), it seems in these passages to be what Konrad Lorenz calls “a controlled form of aggression” (cited in Morreall 1983 p6). It is employed, it appears, as a rhetorical means to ridicule invasive, alien representations of the respondents’ homes that might threaten their own representations of ‘home’ as somewhere safe. The use of hyperbole, meanwhile, enhances the opportunities for this process of ridicule by exaggerating the incongruity between the idealised concept of ‘home’ and the alien concepts being mooted².

The case, above, of the two council tenants raises the question of tenure and its influence on flood-risk response. For home-owners, ‘home’ represents financial capital and is therefore of more than just symbolic value – particularly for those who envisage selling in the near future, for whom conformity to social norms has implications for saleability as well as for value (“Anyone sees that [floodgate] on your house, they ain’t buying!”).

There are a number of possible reasons why, as Grothman & Reusswig (2005) have shown, tenants are less likely than owner-occupiers to take measures to protect their homes. Firstly, they are unlikely to have the right to make the structural alterations necessary for measures such as drainage-improvement or floodgates and have less incentive to do so because they are not financially responsible for structural damage.

² According to Morreall (1983), incongruity is an important aspect of much humour.

Secondly, there is also likely to be a different representation of 'home'. Comments by housing association residents suggest that arrangements inside the home can be the locus of resistance for people who feel disempowered by a lack of control over the outside of their homes. In this situation, suggestions made by out-groups regarding internal resilience measures³ are likely to be resisted in the name of in-group identity and status.

The representation of 'society'

In most of the modern, Western world, 'society' – and its representative, the state – are represented as one of the main guarantors of the security of people's homes. The representation of society, therefore, plays an important role in protecting people's ontological security against natural hazards. If they can continue to represent 'society' as essentially just and effective – as providing rescue and recompense, or better still, as preventing destructive events from ever occurring – then they can continue to believe in the possibility of a home that is safe and can continue to feel ontologically secure.

This is illustrated by Freddy, an unemployed market trader. Freddy has been flooded twice in the last four years and was on each occasion obliged to evacuate his flat for several months. As a result, he says, he became depressed; and he would "go crazy if it happened again". As the following passage shows, he protects his fragile sense of ontological security by clinging to a representation of society that pictures it as both able and desirous to eliminate the flood-risk that is threatening his home and security:

³ For example, the use of removable rugs instead of fitted carpets.

Interviewer But what I'm really interested in, is who you think is responsible for protecting your place from flood. Is it the council, or is it you, the tenants?

Freddy Right, well it's... it's two people... it is two people: it's [the local] council and it's [the water board].

Interviewer How about, how about... Some people would say that if there is no way of stopping the flooding, then maybe the people themselves should try to stop the water getting in.

Pat Yeah, but how can you blame the tenants!

Interviewer Aaah!

Freddy It's up to them to stop the damage really, cos...

Pat They should be cleaning the gullies!

Freddy ...cos, everyone in this area told them exactly what the problem was [*unclear*]. The gully cleaning should be carried out regularly.

Pat Regularly; yeah.

Interviewer So if nothing was going to happen to stop the flooding, would you actually want to try to find out about other things that you could do? Or is it totally the council that's got to do something?

Pat No; it's the council.

Freddy Yes, I think it's the council too. It's their problem. It's up to them to keep the buildings at the standard and all that.

Interviewer But it's your videos and your carpets that are getting trashed, isn't it.

Freddy Yeah.

Interviewer Cos, like, the council doesn't lose out by the sound of it. I'm quite amazed really. It sounds like they just lose 500 Quid – which they pay you – and that's it.

Freddy Yeah. You know, I think that sooner or later one of the systems is going to realise what's going on. Some judge somewhere is going to notice this and is going to make them sort it out.

The passage illustrates how patterns of cause, blame and solution can be constructed that exonerate the speaker without destroying the representation of the state as the final protector of the home and the individual. Although Freddy blames one part of the state for not preventing the flood (“it's [the local] Council and it's [the water board]”), this blaming of one part of the state system co-exists with an image of society as a whole as retaining the capacity and the desire to eliminate the risk (“sooner or later [...] some judge [...] is going to make them sort it out”). The state's failure to protect his home is represented as an aberration rather than a defining characteristic. For Freddy, although there might be oversights and injustices, the state remains fundamentally dependable, for these will always be put right, eventually, by “some judge” or by “one of the systems”.

Few respondents display this rhetorical construction as clearly as Freddy does. The frequent use of the discourse of blame amongst the other householders in the sample, however, implies its wider presence. Blaming a body implies that it retains the capacity to behave otherwise, and even that – in the normal course of things – it *should* behave otherwise. It suggests, in other words, a representation of society and the state as fundamentally just and competent – in spite of the failure to prevent a particular occurrence of flooding.

The representation of ‘nature’

A final pillar of support for the phenomenological safety of ‘home’ is the representation of nature as a force that is essentially benign.

Although it is increasingly being challenged by the global warming discourse, this representation is still predominant in the West, where ‘nature’ is still generally represented as a realm of positive moral influence (Macnaghten & Urry 1995; Soper 1995) and the destructive aspects of its character are not usually treated as part of the normal spectrum of man-environment relations (see Hewitt 1995). In spite, therefore, of being aware of recent natural disasters such as the New Year tsunami in Asia and the flash flood in Boscastle, most respondents still represent the role of ‘nature’ in their own lives as essentially positive. As the following passages illustrate, such a representation makes flooding seem less threatening:

George I’d sooner have water [than burglary] I think.

Interviewer How comes?

[Over-talking – not transcribed]

George It’s a natural phenomenon, isn’t it.

Margaret You can’t help that.

George Water, to me, it’s natural – apart from all the buildings created it – you might say.

Interviewer Yeah, yeah.

George It’s a normal... natural phenomenon, I think – flooding. It’s from rain and flood, isn’t it.
Act of God you could... Would that just about cover it? [...]

George and Margaret’s cottage is regularly threatened by flooding. Asked why he would sooner be flooded than experience a burglary, George’s answer (“It’s a natural phenomenon isn’t it”) carries an implication that “natural” is better⁴, and the construction

⁴ That is, if he is adhering to the *co-operative principles* (Grice 1975) that usually govern conversations, according to which spoken contributions should be relevant to the context. The relevance of the statement

of equivalences between ‘natural’ and “act of God” and between “natural” and “normal” indicate a representation of natural events as relatively benign.

The perceived moral neutrality of ‘natural’ seems to render flooding more acceptable. George’s suggestion that burglary is less acceptable than flooding because of the presence of intent and malice is echoed by other respondents. As one respondent – a retired academic – indicates, floods that are attributed to people are more detrimental to the feeling of security than floods that are attributed to nature (which, in the following passage, is equated with ‘God’):

Florence [...] Then they started to think about regulating the flooding and opening and shutting the doors of the Thames and that; and I must say that since then, I personally have felt that it was no longer an act of God which was happening, but controlled by the powers that be. In other words, the last [time] – was it two years ago...?

Nigel Two years.

Florence We weren’t there. Erm, we were actually all in [European city], but my son returned for New Year – earlier than us. He doesn’t live here anymore but, um, he spent the weekend controlling things here. Erm, and we didn’t get flooded inside, but we felt that whoever it was, had decided to flood us rather than flood the centre of Reading. So my perception is now – from fatalistic, before: ‘floods will happen; the river is a risk; we’re ready to take it’... Because up to, you know, for about 30 years, we could see the water rising and then decreasing, but I would say that over the last ten years I’ve become a bit cynical, in the sense that I felt much more regulated by a central flooding control. Which means that if they decide to flood us, they will. Even if, erm, naturally the water would spread down in

is not evident in its semantic content, so it must be implied. The most obvious implication would seem to be that something that is natural is better than something that is not.

[name of town] or [*inaudible*], but they've obviously... And we heard it said that they decided not to flood the centre of [name of their town] because there was generators, there was electricity generators and therefore we've... I felt – although I wasn't there, but I was ready to come back – a lot more insecure.

Florence's construction of the causality of floods – like George's construction of the nature of floods – limits the damage to ontological security by blaming the more threatening floods on human intervention and preserving the representation of 'nature' as benign. Flood-risk is represented as a threat to ontological security only as long as people continue their malign interference. If left to behave "naturally" rising river levels would "spread down" to other localities and Florence's home would suffer no adverse affects. It is human interventions that disturb the natural system and put her house at risk. Seen from within this set of representations, Florence's home is not inherently at risk, for the situation will change as soon as mankind begins to behave with greater morality.

This tendency to attribute more 'risky' floods to people rather than to nature is evident throughout the sample and is independent of the type of respondent or the source of the floods – rivers, groundwater, sewers etc. Blame is not the result of perceived causality; nor does it vary greatly with demography. Rather, it is a convenient tool for the protection of a particular representation of 'nature' and the security that this representation allows.

When the representations fail

Householders' sense of security therefore becomes dependent on this particular representation of 'nature' – as also on the representations of 'home' and of 'society' discussed above. To acknowledge that your home is not safe, that society will not always protect you against floods and that nature is not always benign, is to enter a phenomenological territory where material security is no longer certain and new anxieties must be faced. For this reason, householders hold tenaciously to their familiar representations.

Only when they have a number of first-hand experiences of a natural hazard affecting their home do householders seem to relinquish these representations. However, although for some this leads to more protective behaviour and hence to greater material safety, for others the loss of ontological security leads only to greater distress.

The first of these two outcomes has long been recognised in the literature, which highlights experience of a natural hazard as one of the strongest predictors of mitigating action against that hazard (Penning-Rowsell 1976; Sattler et al 2000; Lindell & Perry 2000; Grothman & Reusswig 2006). We see this illustrated in this study too, where George and Mary – who have repeatedly been flooded – acknowledge that their home is at risk from flooding; acknowledge that they do not like the fact that this risk exists, but represent themselves as able to cope with it (“It’s part of life really. [*Pause*] We do accept things quite well, don’t we?”) and take measures to mitigate its impact.

The second outcome, however, is less positive. Some respondents who have experienced flooding and whose representations of nature, home and society have been fractured respond with feelings of increased anxiety rather than with practical protective measures. Freddy, for example, claims that his mental health has been brought to the edge of collapse by his awareness of the fragility of the security of 'home' (see above). Similarly, Sally, a 37 year-old single professional – who, like Freddy, twice had to be evacuated from her home – says that she now becomes “panicky” and “hysterical” when she considers the possibility that this experience will one day be repeated.

Although some, therefore, may react to the loss of the safe representation of 'home' by taking action to protect their home, others lose their sense of ontological security and may, in consequence, experience a weakening of their mental health.

Conclusion

In circumstances of uncertainty, continued awareness of the risk of an infrequent event is likely to lead to long-term, debilitating anxiety (Selye 1956; cited in Cox 1978). Even in some of the most at risk areas of the UK, floods are expected to occur only about once in 75 years. Furthermore, the provenance of floods and methods for damage mitigation are complex and are hard for the layperson to understand. The mental suppression, by householders, of awareness of this risk can therefore be seen as instrumentally rational, for it protects their ontological security and hence, also, their mental health.

As we have seen, however, the strategies used to suppress this awareness also de-legitimise the discourse of household-level flood-risk mitigation and therefore reduce the likelihood that householders will take any practical steps to prepare for flood events. In other words, there is a conflict between measures that protect physical security – *safety* in Maslow’s hierarchy – and those that protect ontological security – *esteem* in Maslow’s hierarchy.

This suggests that the discourse of flood-risk mitigation will gain a firmer foothold amongst the at-risk public only if there is a reduction in the perceived risk of relinquishing the social representations that depict ‘home’ as innately safe, ‘nature’ as innately benign and the state as an innately competent and willing protector.

One way of reducing this perceived risk might be to reduce uncertainty about the effectiveness of mitigation measures. Doubts over which measure to take exacerbate anxiety about regret and increase the likelihood of inaction (see Zeelenberg *et al* 2002 on the *inaction effect*) – especially where, as is the case with flood risk, this is anyway the norm (see Tykocinski and Pittman 1998). Furthermore, there is a precedent for the provision of such advice, for in the UK the police and fire services already offer expert, individually tailored guidance on the prevention of burglaries and fires.

As regards risk research in general, by highlighting the importance of anxiety and ontological security for risk response, this article makes an argument for greater consideration of the role of emotions. Although risk researchers have become

increasingly aware of the significance of emotions (Slovic 2000; 2004), more needs to be done to understand how emotional considerations influence responses to natural hazards. As emotions are primary to rational thought and do not necessarily enter consciousness, this implies the need for a methodological shift towards research methods that look beneath the superficial meanings of what people say and explore the representations and discourses that shape their speech and actions.

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Figure 1 Maslow's hierarchy of human needs

