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Researching Risk:
Narrative, Biography, Subjectivity

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Abstract: »*Die Erforschung von Risiken: Narration, Biografie, Subjektivität*«. This article contributes to the development of methodological practices promoting greater epistemic reflexivity in risk research and in social science generally. Knowledge of the specific practices researchers will find useful cannot exist separately from any particular empirical project. Accordingly, we report on, and provide a reflective account of, the "nuclear risk" project that was part of the Social Contexts and Responses to Risk (SCARR) network in the UK (2003-2008). A key focus is exploring the value of narrative methods – especially narrative elicitation methods – for understanding people's perceptions of, and ways of living with, risk. We credit our deployment of a narrative method with producing a rich form of data on risk-biography intersections, which have carried great significance in our analytical work on the way biographical experiences, dynamically unfolding through space and time, can be interrupted by risk events. Arguments from the literature on reflexive modernity are deployed to make the case for: researching risk in everyday life as a problematic in and of itself; placing concepts of risk-biography, risk-reflexivity and risk-subjectivity at centre stage; and finding ways to inquire into the social and psychic complexities involved in the dynamic construction and reconstruction of risk phenomena.

Keywords: risk, reflexivity, epistemic practices, biography, narrative method, subjectivity, interpretive, qualitative, methodology.

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1. Introduction

From its inception, the burgeoning field of risk research has studied issues relating to large scale environmental hazards, and their involvement in processes of industrialisation and technological advance (Pidgeon, Hood, Jones, Turner & Gibson, 1992). Subsequently it has expanded further to include more everyday risks arising as a feature of modern life: for example, financial, relationship, occupational risks (Taylor-Gooby & Zinn, 2006). Risk studies characteristically seek to elucidate intractable problems and issues that are high in relevance to science, policy, society, and individuals. For example: how to understand, and reconcile, contested claims about where to site an industrial development? How to incorporate diverse and fluctuating ideas about, and preferences for, risk-taking or avoidance into policy decisions bearing on people's health and lifestyles?

Problems such as these raise questions not just about people's understandings of danger, but about the values and norms informing their identities, perspectives and preferences – a longstanding position in risk studies associated with the cultural theory tradition (Douglas, 1992). To make such problems researchable means engaging with observations and questions about the nature of risk knowledge, and the part it plays in social, cultural and political processes. Addressing people as risk citizens is important as this can further understanding of the ways in which their activities, preferences and choices are constrained and enabled through social participation (Evans et al 2009; Pidgeon, Harthorn), Bryant & Rogers-Hayden, 2009), opening up questions about how they are socially regulated and governed. Challenging questions also need to be posed about ways of conceptualising and studying risk – not just in order to make them scientifically credible, but to ensure that they are socially apposite in the context of contemporary life and changing society-risk relations.

Researchers do, of course, routinely make assumptions about the nature of risk and what is knowable (and appropriate to know) about it, along with linked decisions about the kinds of methodologies and methods to be used in their inquiries. This is necessary to ensure adequate coherence and focus in any individual study. Nonetheless epistemological and methodological tensions result when differences are elided in the conceptualisation and treatment of risk. In survey questionnaire or experimental studies, assessing or judging risk is deemed to rely upon the veridical perception of real, objective hazards, and probabilistically assessing the likelihood of something dangerous, threatening or harmful occurring. This realist approach underpins the scientific study of risk. However, it is also one that fixes (or reifies) risk, obscuring essential questions about the social, cultural and political processes that give risk its meaning, and how this occurs within the situations, places and spaces where people encounter risk in their daily lives. Whatever the ontological status of events presenting hazards in the world, tensions are created in the field of risk

studies whenever risk is reified in this way. The reification of risk also exists as a methodological problem when researchers define research situations from the outset in terms of universal notions of risk, and unreflexively import constructions of what that term might mean to participants, rather than treating this as part of the research process (Henwood, Pidgeon, Sarre, Simmons & Smith, 2008). Risk researchers need to be able to manage these tensions by, firstly, distinguishing the real effects that hazards can have on people from the socially constructed meanings of risks that condition and inform their actions and, secondly, valuing diverse ways of producing risk knowledges, not just those entailed in established paradigms, practices, and procedures, where statistical testing of quantitative measures of probabilistic risk judgements is the norm.

An important, initial step on the way to acknowledging the varied and contingent bases of knowledge about risk was made by the highly influential psychometric, risk perception paradigm (Slovic, 1987; Slovic, Fischhoff & Lichtenstein, 1980). This paradigm examines people's perceptions of risk acceptability and tolerability by ascertaining their subjective perceptions of the qualitative characteristics of hazards. It questions taken for granted, objectivist assumptions about environmental and technological risks, as if relevant knowledge about them occurs only within science and outside human knowledge-producing and regulatory social relations. Subsequently, many other risk researchers, from other social science disciplines (especially sociology and social policy), have extensively challenged the assumption that lay people necessarily suffer knowledge deficits or that technical and scientific frameworks should be privileged when considering how to make judgements about risk and assess safety practices (e.g. Irwin & Wynne, 1996; Irwin, 2001). Yet the task of dealing with questions about how risk knowledge(s) are generated is far from straightforward. The introduction of a discourse of lay acceptance and tolerance of risk has itself been criticised, for example, for muting socio-political concerns about risk as misfortune, turning uncertainties into probabilities so that risk becomes more amenable to administration and regulation (Hollway & Jefferson, 1997a, citing Douglas, 1986).

Within sociological inquiry, some highly direct criticisms have been made of "technoscientific approaches to risk" (Wyatt & Henwood, 2006) and the limits of "modernist generalisable knowledge" (McKechnie & Welsh, 2002). Such criticisms have led to the production of sustained, self consciously reflexive, accounts of the processes by which risk knowledge(s) are generated by lay people and scientists alike. Wyatt and Henwood (2006) pose the question "what knowledge, whose risk?" to highlight the issues of epistemic differences and contested knowledges. They argue, in methodological terms, for a shift to studying risk discourses to show how people draw on risk discourses to construct risk narratives. This makes it possible to elucidate how understandings of risk may change over time and be disrupted by socio-technical change, and allows attention to be paid to the provisionality of knowledge. Studies in this

vein frequently find that media reporting on risk allows for both the acknowl-edgement of objective risk and its contextualisation in social and cultural set-tings, so that the "multiplicity of risk interpretations circulating between sci-ence and the world" are kept in view (Wyatt & Henwood, 2006, p. 237, quoting Giddens, 1984). Another significant contribution to the ways in which people engage with questions of risk comes from differences in their experiences (e.g. women's embodied experience of HRT and the menopause), giving further grounds for focussing such inquiries onto "risks in knowledge" as opposed to "risky technologies".

Despite the reflexive turn being viewed as an antidote to rationalistic, prob-abilistic, exclusively science-driven framings, within sociology and beyond arguments in favour of the turn to more reflexive explorations of risk know-ledges are not always able to point to strengths in current methodological prac-tices. Writing about studies of risk and globalisation, McKechnie and Welsh (2002), depict reflexive analysis of the social relations of risk knowledge, and its cultural framings, as strong on theoretical sophistication but weak on grounding in rigorous empirical research showing risk reflexivity and analysing its importance. For them, too "little attempt has been made to trace the way people work reflexively with ideas about the environment, or about themselves and others, in different contexts to explore how this might be related to chang-ing social relations and changing practices" (p. 287). The result is a silencing of large areas of social space about which little is known, but McKechnie and Welsh (2002) suggest it would be possible to rectify this situation through detailed empirical analysis of everyday experiences and lived relations. The resulting more tractable, less conventionalised spaces opened up in this way make it possible for people to elaborate and reflect, not from within fixed loca-tions within single spaces, but in more spatially and temporally fluid ways, so that the interpretations they produce can feed off one another. Giddens' view that the development of, and impetus for, reflexivity "involves a double herme-neutic of knowledge spiralling in and out of social sites" (p. 290) captures this idea. McKechnie and Welsh (2002) go on to diagnose some further methodo-logical gaps in the arena of risk study, particularly highlighting "reflex-ive/reflective practices arising from within the sphere of affect" (p. 292). These are seen as an area "where grounded theorising is needed to elaborate the range of such registers" (p. 292) along with the sources of "intensity of feeling" (p. 292) representing silenced social space.

In this article, we join the rising tide of interest in developing methodologi-cal practices that promote greater epistemic reflexivity in risk research, and in social science more generally. Although a range of ways now exist for practic-ing epistemic reflexivity to "help guard against the idea of any one researcher stance, method or form of inquiry guaranteeing knowledge via unmediated perception" (Henwood, 2008, p. 45), knowledge of which specific practices researchers will find most valuable cannot exist separately from any particular

empirical project; rather it tends to emerge in the course of conducting projects in ways that strive to be epistemologically and methodological reflexive. Accordingly, this article is a report on, and reflective account of, the "nuclear risk" project that, between 2003 and 2008, was part of the "Social Contexts and Responses to Risk" (SCARR) network in the UK.

The project is a large scale empirical investigation inquiring into how people living in the vicinity of large industrial, nuclear power generating facilities perceive, understand and live with risk (Pidgeon, Henwood, Parkhill, Venables & Simmons, 2008). It involved collecting and analysing data from two socially and geographically differentiated sites: Bradwell in Essex (on the east coast of England in the UK) and from around Oldbury power station in Gloucestershire (on the English side of the Severn Estuary separating the South West of England and South Wales). Data collection across the two sites took the form of the 61 narrative interviews with a theoretical sample of 82 people[1] (52% Bradwell and 48% Oldbury) chosen to capture a diversity of viewpoints regarding nuclear risk and the presence of the power station in the locality. Study participants included local people with no connections with their local power station and those who worked there or, in some other way, were closely connected to it; this was one of the main conceptual considerations deemed important to the study design. People were also included who had lived in the area for the whole of their lives along with others who were relatively new incomers. Here we elucidate our use of the narrative interview and analysis methods only: other elements of the larger study – the Q study (Venables, Pidgeon, Henwood, Simmons & Parkhill, 2008) and a follow up survey at Oldbury[2] – are not relevant to our purposes in writing this article.

We had one quite specific, methodologically reflexive aim on first setting out in our study: to take forward efforts being made to explore the value of narrative methods – especially narrative elicitation methods – for understanding people's perceptions, understandings and ways of living with risk. Over time, we have made a number of observations about how to develop our own epistemologically and methodologically reflexive inquiries into the everyday ways in which people live with (nuclear) risk. Many have come from engaging with relevant research literatures, others from our own decision-making about how to conduct our narrative interviews and analyse the resulting data. The purpose of this paper is to put together some of the observations we have made, taking forward the broader risk knowledge/reflexivity research agenda.

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[1] Most of the interviews were one to one; the larger number of interviewees than interviews is accounted for as some interviewed also involved an accompanying family member or friend.

[2] The SCARR survey methodology is based on previous work reported in Poortinga and Pidgeon (2003).

2. The Case for Narrative Methods for Researching Environmental/Technological Risk: Arguments From Within Risk Study and Interpretive/Qualitative Social Science

The work of Terre Satterfield has been of particular interest to us for the sustained way in which she has engaged with the well established psychometric tradition of research into risk perceptions, human judgements and decision making about environmental/technological risk (Satterfield, Slovic & Gregory, 2000). As an anthropologist she has brought an awareness of how to find ways round the methodological limits exercised in this area by its preference for strict measurement of subjective meanings. The traditionally preferred approach involves unequivocally pinning down meanings by categorising people's responses on survey questionnaires. But this downplays the dynamic role played by cultural meanings, values and identities, people's affectively charged moral commitments, and other aspects of social situations and broader social contexts, as they are also involved in the process of making environmental choices, judgements and decisions.

Along with her colleagues, Satterfield has developed work within this tradition so that a key interest is in the more processual question of how people construct their preferences in relation to risk issues (e.g. for or against activities such as deforestation of local areas) and arrive at ways of making judgements about risk problems (Gregory, Lichtenstein & Slovic, 1993; Satterfield et al., 2000). A particular target of methodological critique in this area of work is the widespread use of contingent valuation methods – in which people indicate their preferences in terms of their willingness to pay for environmental goods (such as to forego economic benefits to a local area of logging). This variant of the psychometric tradition does not allow for the articulation of the more intangible risks and benefits which may be integral to people's ways of making judgements based on their constructed preferences (viz. preferences arrived at in the course of deliberating about risk issues, rather than making more contextually abstracted judgements based on ideas of their hypothetical monetary value).

We became interested in Satterfield's (2001, 2002) specific proposal to use structured "narrative elicitation methods" to investigate whether people could be primed to express more intangible meanings and values, and subjective preferences, through the contextually embedded, morally committed, value laden and affectively charged stories they tell about risk. Maybe this could help us to overcome the problem with methods (such as survey ratings and contingent valuation measures) not being sensitive enough to get at issues to tap into in our study: such as people's understandings of value conflicts, their ambivalences about risk, and their imaginary positions viz. their hopes for, and fears about, the future?

In the event we decided to depart slightly from Satterfield's proposal and consider whether we should use narrative interviewing as a more open ended, qualitative, interpretive method. One reason for the departure was that Satterfield wanted to test the hypothesis that emplotted narratives would be the more successful elicitation method; hence her manipulation of two different types of narrative frames (instrumental narratives containing information alone versus emplotted narratives with plots and actors). This manipulation was not appropriate for our study, as we were not interested in focussing in on people's responses to these two discrete narrative elicitation frames.

By choosing narrative interviewing as our data elicitation strategy, we placed ourselves squarely within the long established tradition of interpretive, qualitative inquiry. This put us in a strong position to investigate people's views of, and ways of living with, risk in ways that were relevant to them in their everyday lives, as lived in specific local, cultural and social contexts. Qualitative inquiry (Lincoln & Guba, 1985; Denzin & Lincoln, 2000; Denzin, 1989) is a broad church allowing for more direct questioning strategies (semi-structured interviewing) where researchers maintain a clear link between their participants' discourses and their own research agenda. But much importance is also attached to attending to participants' ways of representing their experiences to themselves and others, by following their ways of narrating about it (for example). It is argued that this can bring benefits in terms of conveying socio-cultural configurations of meanings and personal gestalts lost by questioning that is directive, overlaying the expert/researcher's agenda upon participants' own meaning frames. Narrative methods are of particular importance in this regard in that they are marked out, in practice, by the researcher's preparedness to relinquish such strict control of the flow of conversation as used in other types of qualitative interview methods set on maintaining fidelity between data and predetermined questions (Flick, 2006).

In previous writings with colleagues within the SCARR network we have considered questions about the degree of control in narrative interviewing within discussions of the complex dynamics of risk framing (Henwood et al., 2008). Viewed in this light, narrative elicitation methods, along with other qualitative interview methods, cannot free themselves from the influence of researcher's own meaning frames since these, necessarily, anchor the way the research problem is formulated, how the study is conceived, how it is presented to participants, and the meanings that are assigned to the situations being investigated. While this does not lesson at all the importance of finding ways to avoid merely imposing researcher framings on interviewees, it does mean that there are more complex methodological challenges associated with the narrative interview process. These include appreciating the production of risk framings by researchers and interviewees and negotiating their relevance or otherwise to interviewees, acknowledging competing/other/alternative frames, and managing any tensions these elements of the research process may pose to the

analytical concerns of the study itself (viz., in our case, how people's lives may or may not be imbued with risk).

In part, these discussions of issues of risk framing derive from our decision, early on in the data collection phase of our own study, not to conduct an oral history style of narrative interviews, despite its style of questioning being the one that exerts least control over what participants speak about in the research encounter. Such interviews use a single generative question such as "tell me about how your life has gone since XX until now?" followed up by prompts to elaborate further where there are gaps, or little developed areas, of the life story. This was not an appropriate choice of interview method for us since we were not interested in life stories per se, unless they proved to be ways in which people conveyed their lived experiences of risk. (Note that we mention one example where this was the case in our study: see paragraph 25.) Rather our aim was a methodologically reflexive one of finding a form of narrative method best suited to studying how people who live in close proximity to a nuclear power station perceive, interpret and live with risk. Accordingly, we opted for an interview strategy that entailed inviting people to narrate their lived (biographical) experiences of living near to the power station and in their particular locality.

As our project progressed, we were able utilise ideas from discussions focussed particularly on narrative methodology, as these have become increasingly prominent within qualitative/interpretive social science in recent years (se e.g. Andrews, Squire & Tamboukou, 2008; Czarniawska, 2004; Elliot, 2005; Kohler-Riessman, 2008). Researchers' commitment to narrative derives from their awareness of the way its features (e.g. temporal and causal ordering; human sense making, interweaving of personal and cultural meaning frames) can extend methodological strategies to help describe, understand and explain the world; gain insights into biographical patterns and social structures; and incite creative problem solving capacities that involve interchanges between theory and practice (Squire, 2008a). A particular feature of narrative data as a method for researching people's lives in situ is the way it enables researchers to "see different and sometimes contradictory layers of meaning, to bring them into dialogue with one another, and to understand more about individual and social change" (Squire, 2008a, p. 5).

For our own project, the following features of narrative inquiry provided the methodological principles guiding our inquiries[3].

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[3] In italics under each sub-heading are examples of different types of questions asked in the fieldwork interviews.

2.1 Narratives of Everyday, Lived Experience: Biographical and Temporal Dynamics

Can you tell me about your experiences of living near to Old-bury/Bradwell nuclear power station? Did you know about the power station before you moved here?

Focussing in on people's everyday narratives about their experiences of living near to the power station (viz. embedding their risk perceptions in their lives in situ) was a way for us to introduce a concern for biographical and temporal dynamics. This is because "narratives of experience" (Squire, 2008a, 2008b) are embedded in people's life histories or personal biographies, which are sequentially ordered in space and time. These characteristics of the data are ones that may be generated in semi-structured, thematic and focussed interviews, but narrative style interviews are particularly good at getting people to talk in ways that involve biographical and temporal extensions – looking back to the past, linking the present to the past, and imagining what might happen in the future, for example. In our interviews questions were also worded specifically to reinforce this idea of embedding talk about the power station in people's stories of life, including their temporally located experiences of life in place.

2.2 Reflexivity Generated Through Multiple, Shifting Perspectives

What difference, if any, does having the power station here in Old-bury/Bradwell make to your life? How does living here compare with other places you have lived?

In opting for a narrative qualitative interview method we were seeking to elicit from interviewees their ways of telling their experiences of risk and encounters with a risk object (the power station in their locality) reflexively. Our questions encouraged participants to speak about the power station from the many perspectives that became available to them as they took into account the changing circumstances and conditions of their lives (what Tulloch & Lupton, 2003, presciently refer to as "the changing time and place coordinates of their lives"; for more details of this work see the next section). We engaged this strategy to prompt reflexivity among interviewees about the role the power station played and had played previously in their lives/area, and allow us, as analysts, to explore the various kinds of narratives, meanings and framings, including biographical and place based ones, interviewees invoke to make their experiences and encounters with risk intelligible.

2.3 Experiential Relevance and Episodic Narratives

Has anything in particular around here happened, that you could describe, to do with the power station?

Our questioning strategy involved encouraging participants to put their risk perceptions in the dynamic contexts of their lives and time in a variety of ways, such as by asking them biographical, life journey questions (e.g. how has your life changed over time, and in what ways?). At the same time we were mindful of limitations in adhering to thinking only biographically about narrative method. There can be no guarantee that interviewees will find enough of experiential relevance to them from such life journey questions to be able to engage in depth and in a meaningful way with the topic at hand, or that what they might have to say would be readily accessible to them within such an experiential frame.

For this reason we placed a good deal of emphasis upon designing questions to draw out shorter, more focussed, yet experientially relevant stories about interviewees experiences of living near to the power station. Flick (2006) would call these "episodic narratives". One important sub-set of these questions asked about possibly controversial issues that the project team knew had been in the public domain, although (with the exception of people sampled as environmental activists opposed to nuclear energy) we knew little about how much personal relevance they would have for each interviewee (e.g. were you involved at all in the events in the 1980s when there were site investigations at Bradwell in connection with plans to store nuclear waste underground?) These questions identified specific events with a local relevance (new nuclear build, waste incineration, media reporting of cancer clusters) and their links to broader issues that were significant nationally and internationally (climate change, health impacts).

2.4 Narrative, Discourse and Affect

Narrative data are typically (although not exclusively) produced through writing and talking, and so may be studied for their discursive or textual features and organisation. In our study, we have followed the practice recommended by the risk researcher Sally Macgill (1987), in paying attention to how participants talk about their everyday feelings and concerns (experiences labelled latterly in the psychometric risk field as affect; see e.g. Slovic, Finucane, Peters & Macgregor, 2004), as well as identifying certain narratives through their general structural features (in terms of plot development, characterisation etc). The kinds of everyday affects that came to our attention – either through interviewees' explicit use of adjectives or through our own interpretations of their implicit descriptions – were, primarily, unease/apprehension, nervousness/ agitation, and concern/worry about an aspect of the power station. We were

interested to explore the everyday associations between these emotions or affects, risk, biography and place, so that what is usually intangible, or on the margins of awareness, became researchable (for more explication see Parkhill, Pidgeon, Henwood, Simmons & Venables, 2010). Other specific linguistic, discursive or textual features of our data considered to be of interest include repeated figures of speech (tropes), vivid images and metaphors, humorous remarks (Parkhill, Henwood, Pidgeon & Simmons, submitted), and the (imaginary) positions people take up in discourse in the course of speaking about their lives, the power station, and the place where they live. For a general resource on discursive methodology see Wetherell, Taylor and Yates (2002); and, for some more specific guidance relating to imaginary positions that we have found useful, see Wetherell and Edley (1999).

How to study feeling or affect, related to issues such as risk concern and anxiety, is not a well developed area. Hence our study is breaking new ground in studying questions about affect in our analytical work on symbolically meaningful exchanges about people's experiences of living in their locality, their biographically and geographically situated experiences, and their accounts of their lives in a place. We have become aware of the particular value of our episodic narrative data in this respect, following the insights offered by Squire (2008a, 2008b). Using the term "personal event narratives" she depicts the kinds of episodic narratives that have personal relevance to people's lives, identifying their uses in replaying events that have become part of a speaker's biography, operating powerfully through revisiting and "emotionally reliving[4]" key moments in talk, and as strategies "for explaining events that are partially represented or outside representation" (Squire, 2008a)[5].

3. How the Narrative Strategy Used in the "Living With Nuclear Risk" Study has Worked out in Practice

In our data set (unsurprisingly, given the topic and our interview strategy) few of our interviewees provided holistic life story narratives. One exception was an oyster fisherman who recounted the story of his life as successful in the world of work and public life, and hence being able to support his family; a story that turns on this being made possible because his fears at the time the

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[4] This observation was made by Fritz Schütze in the 1970s when he developed the biographical-narrative interview and used this reliving as an important entry point for the analysis of in-depth interviews

[5] Squire's account focuses a good deal on distinguishing between approaches to narrative that assume a direct relationship between real experiences/events and linguistic structures and those which depart from this idea, focussing instead on issues of narrative (re)construction, representation and communicating performance. We have not followed up all the subtleties of her distinctions here, but see Squire (2008a, pp. 13-14) for some relevant details.

power station was built – that it would pollute the estuary making fishing impossible – proved to be groundless. Hence, this example from our data shows how, on occasion, framing questions in terms of risk in qualitative interviews can, indeed, prompt experientially relevant life stories, and reflexive accounting about a person's life and the risk issue, so that both become intelligible within a single, narrative gestalt.

A highly characteristic feature of our data sets, from both geographical/case study sites, is the way that interviewees told self-contained, illustrative stories (vignettes) with some sort of narrative structure (such as a plot with a beginning and end, and including a headline or summation) about times when they had experienced intersections between aspects of their own biographies and a risk issue. We coined the phrase "risk-biography intersections" (Pidgeon et al., 2008; Parkhill et al., 2010) to draw attention to these stories, and their importance to our analytical work.

Text Box 1: Illustrative Data: Risk-Biography Intersections

Actually I seem more concerned about it when, it's that concept of perceiving real risk because I don't, I'm a member of the sailing club ... the first time somebody took me out sailing on the river, now that's quite a dangerous place to sail ... you can get swept away if you're not careful but being out there on the water, the water being splashed on you and then there's the power station pumping away and it makes you think 'oh I wonder how, what's in the water?' but until I was out there getting splashed by the water going past I'd never given that a second thought. There's loads of people that go sailing there every week and there's no big incidence of cancer in Thornbury sailing club, you'd probably pick up something a lot more biologically active from the river, another group that's out, it's a much cleaner place. So everywhere you turn there are risks (Harrison Donaldson)

Now when we were there, when I was there as a young man, we used to smash it about and it would be dust and throw it at somebody underneath, and they'd be covered in this dust, like flour. Nowadays, if there's a chance of a matchstick head of asbestos about it's contained, sealed, taken away. You know, you can't work there, you can't go close to it. In those days, so who knows what's in people's lungs now, waiting to become malignant. ... I know of two people and I know one that's dying at this very moment, you know, he's got a year or two to live. From Berkeley Power Station and Oldbury, which is a bit sad and it's a bit ... concerns you a little bit, cos, it could be you next and it comes about very quickly and not a very pleasant death. ... So I have had (that) checked out, yeah. And now that they've recognised it they didn't know how bad it was, nobody did, all other industries were exactly the same, the aircraft industry, ICI, all the ... all industries, you know, the construction industry particularly bad (Toby Bundock)

... I think in one way I laugh because I think well, Jesus, you know they're not going to find these terrorists strolling down Nuppdown Road are they? You know? ... so every time I see the police car I do think it's quite funny

> really and you do think about it, yeah (Kate Ryan)
>
> Years ago when it was first built and for the first few years, well up until probably ten years ago, they used to come round here... but the worrying thing was they'd park outside here and they'd all get out in their white suits, like a space suit, helmet and everything to do all the testing, well there we were sort of just ordinary ... (Brandon Heitmann)

Text box 1 contains a selection of illustrative extracts from across the sample (viz. from both sites or case studies). One, spoken by Donaldson, relates his experiences of being splashed by water while out sailing and thinking of the possibility of radioactive contamination: a narrative about an unanticipated risk of pollution that, nonetheless, is considered less risky than other kinds of emissions (ones that are biologically active). Another, spoken by Bundock, narrates how his youthful encounters with asbestos while working in industrial sites, and subsequently with associated deaths, have led him to have a medical check up: his narrative downplays the threat associated with nuclear risk, though, as it depicts other (non-nuclear) industries as being particularly bad. The quotation, by Ryan, ironically refers to her experiences of local police patrolling the roads around the power station: such (so called) humour articulates a sense of concern that is not explicitly stated. The final example in the text box, from Heitman, involves the use of vivid imagery (people in white space suits), and points to the worrying incongruity of the practice of testing for contamination around the power plant in highly visible protective clothing when local people are going about their ordinary lives dressed normally.

Clearly these risk-biography intersections are a function of how we designed and carried out the narrative interviews. More interestingly, though, is the way they have carried great significance in our data analytical work. In terms of our overall analysis, these risk-biography intersections support an account involving two coexisting processes: first, a process whereby the power station is constructed as being a familiar and/or normal part of everyday life and, second, one whereby the power station is reframed as a risk issue. In these latter moments the quality of people's experiential awareness is very different, involving an ebbing and flowing of concern (even anxiety) about risk through interviewees' lives. Accordingly, we have concluded that biographical experiences, dynamically unfolding through space and time, can be interrupted by risk events (direct or mediated, real and symbolic, nuclear and non-nuclear, connected and disconnected from the power station itself) to disrupt the usual taken for granted ordinariness of the power station's presence in the locality.

Currently in the UK there is a revival of interest by government in building a wave of new nuclear power stations (see Pidgeon, Lorenzoni & Poortinga, 2008). Our research suggests a need for policy makers to acknowledge how an underlying sense of fragility, contingency, and contradictoriness coexists with the apparent tolerance found in communities living alongside nuclear power

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stations that are commonly viewed as ordinary and unremarkable features of the everyday and of place. The risk-biography intersections that have become so central to our analysis do not suggest that nuclear power stations are profoundly dreaded, or that they are seen as harbouring a stigmatised technology of yesteryear. But they do point to a considerable heterogeneity in local people's perceptions of the extraordinary in nuclear affairs (called by Masco, 2006, the "nuclear uncanny"), and a resultant, intermittent experience of intrusiveness whenever thoughts and feelings of incongruity or discomfort enter into people's everyday awareness of life and place.

Local people's more intangible thoughts and feelings about living alongside normally/normatively accepted, large scale industrial/nuclear installations are not so easy to detect – at least until they have become noticed and looked for, in which case they can quickly become all pervasive (see e.g. Zonabend, 1993). In other research, questions have begun to be asked about how to bring into focus issues that are difficult to symbolise, such as anxieties and other affects in communities (see e.g. Walkerdine, in press). We would credit our deployment of a narrative approach as being a key reason why risk-biography intersections were even noticed by interviewees and, hence, by us as researchers; also for showing the move from ordinariness to extraordinariness and vice versa in people's perceptions and construals of the power station (Donaldson is an especially good example of the latter). The quotations displayed in the text box point to some of the variety of ways in which risk is constructed and discursively negotiated and, in particular, how both normalisation/ordinariness (Donaldson and Bundock) and extraordinariness (Ryan and Heitman) are grounded in lived experiences and find representation in everyday life narration. Key issues here include contrasting lived experiences and different sources of risk (Donaldson) – sometimes composed through looking back retrospectively (Bundock) and finding socially acceptable ways of expressing affectively charged feelings (Ryan, Heitman).

Although we have space for only limited discussion here, the quotations start to show participants' engagement with wider issues of trust, safety and blame: these issues involve questions about why nuclear risks cannot be divorced from other risk and threat issues, questions of morality and ethics, and negotiations with expert and technical risk knowledges over time (and space). At times, our interviewees could be highly reflexive in their assessments and judgements about what drew their attention to the power station's extraordinariness or otherness. As mentioned above, and in relation to work identifying the "nuclear uncanny", the sources of their knowledge were far more wide-ranging than the collective memory of nuclear technology as part of an atomic age. What constituted a possible threat was dependent on positions they took up regarding the motives, actions and competence of other people, and was open to renegotiation in the light of perceived cultural, political, geographical and biographical influences. Two key issues flagged within our data were the

role of social networks (either being or knowing power station personnel) and imaginary positionings (thinking of other people one did not know, such as power stations workers, as having similar or different values and investments in community safety) to the building of social trust. They could result in a de-othering of the power station by deconstructing the sense that it was distant social institution, and making it less troubling to people's sense of having to trust those occupying positions of social responsibility, influence and power.

In sum, our narrative study has produced a rich form of data which we have analysed to gain insights into the dynamic construction and reconstruction of known risk phenomena through processes such as familiarisation, normalisation, reframing and (de-)othering, processes that had the effect of either attenuating or amplifying people's awareness of, and concerns about, risk. The biographical-narrative method that we used involved studying instances where risk issues had intersected people's biographies/everyday lives, opening up the differentiated quality of people's experiential awareness of risk. Studying interviewees' efforts at reflexive meaning-making about their experiences also generated further insights into the social, cultural and psychic mediation of people's encounters and ways of living with risk. In particular, how they viewed and imagined the motives, interests, and competences of others, and the extent to which they de-othered or reduced the distance between themselves and their community and the power station, led to them feeling more or less troubled by trust issues. Nonetheless, a number of analytical and interpretive challenges remain in to pursuing such lines of analysis with the data. Consideration of these issues requires addressing some further arguments that have been made for researching risk in everyday life as a problematic in and of itself, wherein concepts of risk biography, risk reflexivity and risk subjectivity take centre stage; accordingly, this is our focus in the next section.

4. Studying Risk in Everyday Life:
Reflexive Modernity, Risk Biography and Risk Subjectivity

Questions such as "how aware are people today of issues and questions of risk?" and "how are they dealing with the everyday challenges of living with risk in contemporary (late modern) life?" have come to be of widespread interest among social researchers in recent times. As already alluded to, this is occurring well beyond the established community of risk researchers whose interests lie in how to understand and manage significant sources of environmental and technological risk – the arena addressed in the preceding sections. For researchers working in diverse disciplines and substantive areas, and as exemplified by projects across the SCARR network, the idea of risk has come to the forefront of their inquiries into how people are living out their lives under the conditions of late modernity. The implications of socio-cultural transformations for people in their everyday lives are at issue, in relation to: rapid changes in

the rate and impact of socio-technological change; becoming disembedded from traditional ties and norms and burdened with making individualised choices, judgements and decisions; and the (related) expectation that people should be acting in their daily lives as reflexive subjects able to deal with uncertainties about risk and the future along with the emergent forms of anxiety that have become part of contemporary modern life – reflecting the increasing unknowability, invisibility and pervasiveness of risk. Such ideas are derived, of course, from the wide reading and dissemination of the writings of the theorists of late/reflexive modernity – often known as the Risk Society (Beck, 1992; Giddens, 1984).

Tulloch and Lupton (2003) have bolstered the case for making reflexive modernity, and its proposition that risk has become part of everyday life, a key research problematic. For them the grand claims of such theorising lack support as they have been progressed apart from empirical inquiry. They are too universal in form – making weakened claims by failing to consider the continuing relevance of social and cultural differences in contemporary life. They pay too little attention to the ambiguities, complexities and contradictions of what it is like for people to have to live under conditions of late or reflexive modernity; for example, the way that taking risks can be part of people's ways of enacting their identities, and practicing self enhancement, at the same time as they are being compelled to take responsibility for their own lives. Researching this kind of phenomenon means asking questions about people's reflexive risk biographies – about how they produce their own biography in a social and cultural climate where people's daily lives have become imbued with risk. Widespread concerns exist in this climate about socio-political institutions' responsibility for risk (risk externalisation) together with the increasing expectation that individuals will find ways of responding to it (risk individualisation). We would contend very strongly here that studying the problematic of risk in late modernity lends itself to narrative inquiry, since it is as people narrate about their experience and lives that they produce their everyday knowledge about it and where they are reflexive about risk (viz. develop an awareness and ways of responding to it).

Tulloch and Lupton's work offers methodological and conceptual resources for researchers seeking to research questions about risk in everyday life. They advocate the study of how people develop a personal awareness of risk in their own lives, and how people narrate their experiences of risks and ways of responding to it, but in doing this they do not presume an individualised model of the risk actor or subject. The individualised risk subject is one who arrives at their own subjective appraisal of the characteristics of risk objects (factoring in the influence of normative beliefs and expectations in social situations) so that it is possible to decide on the best course of action given the likely consequences of alternative choices. S/he is, for the most part, a rational subject calibrating or calculating what constitutes an acceptable level of tolerability,

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acceptability or uncertainty given any particular choice or outcome, although, in important developments within the psychometric paradigm, affective reactions can be useful guides to action (Loewenstein, Weber, Hsee & Welch, 2001; Slovic et al., 2004). There is far more to be said about affective feelings, sensory communication, and embodied insight by integrating them within understandings of risk as a situated, contextually and personally mediated phenomenon, demanding a similarly multilayered response. Institutional processes (including of trust and its erosion), social networks and relationships (involving experts and the public; outsiders and insiders to cultural groups standing in relationships of loyalty or otherness to one another), and cultural values, identities and meanings that are part of symbolic exchanges: all these contribute to diverse views and risk rationalities. But it is impossible to see any of these important concerns at work using an individualised model of the risk subject. Tulloch and Lupton, by contrast, presuppose a reflexive risk subject dealing with risk in a wider range of dimensions (knowledge, moral, aesthetic, practical, situated, embodied, symbolic) within complex and dynamic milieus that they theorise in social and cultural terms. Their methodological approach to inquiring into complex risk subjects is to ask about their developing awareness of risk and how they respond to it, taking into account the changing place and time coordinates of their lives.

Within research exploring the effects of living under risk modernity, questions have arisen about how to theorise and study the complex subject – also known as the psychosocial subject (Hollway & Jefferson, 1997a, 1997b). Writing about the need to situate efforts to explain fear of crime, Hollway and Jefferson critique studies where fearful reactions are equated with the realist position of the risk object itself being perceived as threatening. They see this as assuming an overly rational subject whose responses to risk are determined by objective threats perceived as part of encounters with external reality. They pose, instead, a model of the "anxious subject" to encapsulate their non-realist position that people's emotional responses are always already present as part of the functioning of the dynamic unconscious, entailing the mobilisation of psychic defences against real or imaginary external threats to self and survival.

In their theorisation the subject is seen not just as psychic but as social (viz as psychosocial). Its workings are seen as operating within a complexly regulated set of social relations, and they are particularly concerned with the construction and circulation of meanings and discourses of risk. As, under conditions of late modernity, there has been a proliferation of discourses of risk as unknowable, anywhere and everywhere, issues of anxiety need to be seen in this context. For Hollway and Jefferson, this makes prescient the question of whether in late modernity issues of anxiety are currently complicated by raised levels of ontological security: are people having to find their own ways of coming to live with the psychological consequences of risk, uncertainty and threat because they lack clear frameworks of institutional authority and trust?

As well as being an issue raised by reflexive modernity theory, the nexus of connections between anxiety, risk and trust is particularly germane to the concerns of theorists of the anxious subject who stress disruption of relationships with the "big Other" (Salecl, 2004). The big Other, or significant others who are symbolically invested with the power to protect and control, are especially potent in the mobilisation of defensive reactions to fear of threat and harm. Such strategies may not only represent an impoverished response to current social relationships by threatening the social and relational ties that can themselves guard against erosion of feeling of security and protection. They can lead to strategies of blaming of others and promoting the desire to punish or seek retribution from them. In their own empirical study (of why people objectively at less risk of crime experience more fear of crime), Hollway and Jefferson observe that the risks that people fear most may be ones over which they have most control. While this may be counterintuitive, it may explain the popular uptake of fear of crime discourse which can become a magnate for anxiety over risk and other existential concerns.

Overall, Hollway and Jefferson's contribution to risk study has been to break with the realist position and create a space for examining and explicating connections and disconnections between risk (the constructed qualities of events/and objects that make harm a possibility), threat (of becoming a victim), and emotional responses such as anxiety and fear (but also more adaptive responses). Unlike Tulloch and Lupton their chosen approach is in some large part psychoanalytic; that is, their model is of a subject motivated by a dynamic unconscious, itself constituted through the effects of intersubjective relationships from early life. Tulloch and Lupton (1999) have not taken up this proposition which they see as reintroducing a rational-irrational opposition and, for this reason, inviting premature judgements of people's ways of responding to risk as more or less appropriate. For them studying the reflexive subject remains preferable as it remains open to appreciating differences in the risk rationalities people invoke as part of the macro and micro contexts in which experiences of risk, and ways of responding to it, are worked through.

In our own study, as stated above, we are interested in the spatially and temporally dynamic construction and reconstruction of risk phenomena, as this involves social, cultural and psychic processes and requires analysis of people's efforts at reflexive meaning-making. We see this as an appropriate research strategy for interpretive social scientists pursuing the broad question of how to understand and manage significant sources of environmental and socio-technical risk. Our inquiries involve finding ways to be attentive to the social and psychic complexities of the positions people take up as knowing subjects in relation to risk issues, and posing appropriate investigative questions: How and why do people construct risk objects in the ways they do? How are matters of affect, emotional response, and anxiety implicated in the dynamics of known risk phenomena? Can we find ways of articulating and appreciating the ways in

which people live with risk in the everyday, in ways that take into account the challenges and difficulties of so doing? Can we tease out where any controversies may lie between experts and lay epistemic subjects?

In our empirical work, we have found that utilising the concepts of risk awareness, risk biography and risk subjectivity has been productive in this regard. Our experiments with using and adapting narrative methodology and methods, including using the strategy derived from Tulloch and Lupton's work, have been instructive. We have found that asking people to narrate about risk in and through the changing time and place coordinates of their lives has helped to produce data on people's biographical framing and how this can provide them with a way to show their awareness of risk, their concerns about it, and ways of approaching risk issues as they ebb and flow dynamically through place and time.

In considering as dominant the processes of risk normalisation and familiarisation, we have highlighted how frequently people's attention is drawn away from a concern with threat and anxiety, while at the same time remaining alert to processes of risk attenuation and amplification in local risk settings. We have taken seriously the psychic dimension of our work by: studying how a sense of threat becomes a (momentarily) constructed feature of the power station; looking at everyday expressions of anxiety as part of a dynamic, temporal nexus of perceptions and understandings; and analysing how risk subjects interpret risk objects and events, imbuing them with symbolic meaning.

5. Concluding Remarks

As part of the process of conducting our methodologically reflexive study, we have made considerable efforts to work up the generalities (why choose certain methods in the first place?) and then the specifics (how to conduct the interviews?) of the methods we would need to investigate our local community perceptions/ways of living with nuclear risk. It has become apparent to us that it is important to locate our approach within a number of more or less established traditions of inquiry (risk study, reflexive modernity, qualitative social science, and narrative studies). We believe that our biographical-narrative approach (cf. Zinn, 2005) is allowing us to take seriously questions of epistemic difference, (risk) knowledge as a contested arena, and the need for reflexivity about the culturally and socially diverse contexts and sources of knowledge. The question of the psychic mediation of risk is necessary but more difficult, and one we are actively considering. This entails following up research into risk and affect in ways that extend beyond models of the individualised subject. Use of narrative methodology is one way for researchers to avoid suppressing epistemic differences, neglecting diverse sources and contexts for risk knowledge, and being limited to interpreting people's risk responses only within their own prior investigative frames. In our own study, we have added to

the methodological repertoire of narrative-biographical work through our encounter with life story methods, and by working up bespoke strategies for connecting people's accounts to what is experientially relevant to them.

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