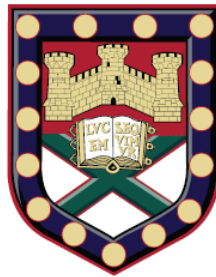


Understanding local public responses to a high-voltage transmission power line proposal in South-West England: Investigating the role of life-place trajectories and project-related factors



Submitted by **Etienne Benjamin Bailey** to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Human Geography, March 2015.

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Abstract

With a projected increase in electricity demand and low-carbon energy generation in the UK, expansion of the existing transmission grid network is required. In going beyond the NIMBY concept, Devine-Wright (2009) posited a place-based approach that highlights the roles of place attachment and place-related symbolic meanings for understanding public responses to energy infrastructure proposals.

This PhD research investigated two overarching and interrelated research aims. The first sought to enlarge our understandings of the processes of attachment and detachment to the residence place by investigating the dynamics of varieties of people-place relations across the life course (people's 'life-place trajectories'), thus addressing the limitation of studies adopting a 'structural' approach to the study of people-place relations. This research, in a second instance, sought to better understand the role of people's life-place trajectories and a range of project-based factors (i.e. procedural and distributive justice) in shaping people's responses to a power line proposal. This research focussed on the Hinckley Point C (HPC) transmission line proposal and residents of the town of Nailsea, South-West England.

A social representations theory framework was usefully applied to this research by acknowledging that people's personal place relations and their beliefs about proposed place change, are situated and embedded within wider social representations of place and project. A mixed methods approach was employed comprising three empirical studies. The first consisted of twenty-five narrative interviews, the second a set of five focus group interviews, and the third a questionnaire survey study (n=264) amongst a representative sample of Nailsea residents. Triangulating findings across the three studies produced a novel set of key findings.

By elaborating five novel 'life-place trajectories', this PhD research moved beyond structural approaches to the study of people-place relations and made a novel contribution to our understandings of the processes and dynamics of attachment and detachment to the residence place across the life course. This

research further confirmed the existing typology of people-place relations and revealed a novel variety termed 'Traditional-active attachment'.

Life-place trajectories were instrumental in informing divergent representations of the nearby countryside which were more or less congruent with objectified representations of the HPC project. Future studies investigating place and project meanings should be sensitive to these trajectories. Interestingly, place as a 'centre of meaning' rather than a 'locus of attachment' (or non-attachment) emerged as particularly salient for understanding responses to the project.

Project-based factors were salient in informing participants' responses toward the project. A perceived imbalance between high local costs and an absence of local benefits was seen to result in distributive injustice and opposition toward the project. However, improved perceived procedural justice following National Grid's announcement of siting concessions in the spring of 2013, was seen to ameliorate local trust in the developer and project acceptance.

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Chapter One: Introduction

The existing UK electricity grid system consists of a centralised network of interconnected power cables, electricity pylons, sub-stations and transformers that are divided up into the transmission system – typically high-voltage (275kV and 400kV) over-head power lines and large-scale A-frame pylons that transmit electricity from generation sites to sub-stations – and the distribution system – comprising lower voltage over-head and under-ground power lines that distribute electricity from sub-stations to sites of end use.

With a projected increase in electricity demand and a surge in low-carbon energy developments throughout the UK, the increased deployment and expansion of the existing transmission electricity network is foreseeable (DECC – Electricity network delivery and access, 2013). This is due in part to the nature of large-scale renewable energy developments, which tend to be more distant from sites of high electricity consumption and are often more variable in electricity output. Expansion of the current UK electricity transmission grid is therefore essential in order to link up more distant sites of renewable energy generation, as well as new sources of nuclear power, to sites of major consumption, and to counteract the variable nature of renewable electricity supply.

Energy infrastructure development proposals have at times been met with local opposition. In particular, high-voltage transmission power line siting proposals in the UK have proven controversial, and in some cases have been met with vehement public opposition, resulting in planning delays and financial cost for developers (Jay, 2004; National Grid Website, 2014). Local opposition to energy infrastructure proposals has often been described and explained according to the pejorative label of NIMBY (Not In My Back Yard) responses (Dear, 1992; Devine-Wright, 2009), where objectors are portrayed by developers and the media (Cotton & Devine-Wright, 2010, 2011; Toynbee, 2007) as ignorant, irrational or self-interested individuals or groups: 'NIMBYs are usually selfish and parochial individuals who place the protection of their individual interests above the common good' (Burningham et al., 2006:5).

However, numerous academics have recognised the limited value of explaining local opposition according to a pejorative view of NIMBY objectors. Despite its prominence, the concept has been widely criticised for overlooking the varied motivations feeding opposition and for discounting the subjective emotional and symbolic associations people form with places (Devine-Wright, 2009). In response to such criticisms, Devine-Wright (2009) has posited a 'place-based' approach to understanding responses to energy project proposals, where local opposition is seen as resistance to forms of place change that are seen to disrupt existing place attachments and threaten place-based identities.

A number of empirical studies have employed a 'place-based' approach within the context of renewable energy project proposals (Devine-Wright & Howes, 2010; Devine-Wright, 2011a, 2011b, 2013a; Vorkinn & Riese, 2001), but there remains a relative dearth of research that utilises such an approach within the context of electricity network developments. This PhD research project thus adopts a predominantly place-based perspective to understanding and accounting for people's experiences of and responses to an overhead transmission power line proposal in South West England (the Hinckley Point C grid connection). This research goal, along with other broader research objectives, will be situated and outlined in more detail in the forthcoming sections of this introduction.

1. Moving toward a dynamic approach to the study of varieties of people-place relations:

The relationships that exist between people and place(s) have been approached from a range of epistemological, methodological and disciplinary research traditions. Humanistic geographers in the 1970s were committed to the phenomenological study of human beings' affective ties with their material environments (Tuan, 1974, 1977; Relph, 1976), with the home place lauded as a profound site of human attachment and identity making. Agnew (1987) later outlined three aspects of place (location, locale and sense of place), with 'sense of place' comprising 'the subjective and emotional attachment people have to place' (Cresswell, T., 2004). Environmental psychologists have also studied people-place relations from a largely positivistic standpoint elaborating the concepts of place attachment, place identity and place dependence. However,

there have been recent moves in this discipline towards the adoption of a social constructivist epistemology, notably through a discursive approach (Dixon & Durrheim, 2000; Di Masso et al., 2014) and the use of social representations theory (Devine-Wright, 2009, Devine-Wright & Howes, 2010; Batel & Devine-Wright, 2014), given critiques of the individualistic socio-cognitive approach to the study of people-place relations and its tendency to overlook the socio-cultural meanings within which individuals' personal relationships to places are embedded.

Moving beyond one-dimensional accounts of place attachment (i.e. associating strength or intensity of place attachment according to a number of variables) and singular accounts of place identity, more elaborated typologies of people's relationships to place have emerged, referred to as varieties of people-place relations (Hummon, 1992; Lewicka, 2011b; Hernandez et al., 2014). This typology includes two varieties of attachment to the residence place – *traditional* and *active* – and three varieties of non-attachment – termed *place relative*, *place alienated*, and *placeless* (see the 'critical literature review' chapter for a description of these place orientations).

To date, research on place attachment and other place-related concepts has tended to focus on unearthing the qualities of the product, rather than the process(es) that guide attachment and detachment to place(s). Studies have subsequently adopted 'structural' approaches to the development of the concept, typically employing cross-sectional research designs. Some studies have, none-the-less, attempted to examine the effects of changes to people and changes to places upon place attachment dynamics (Feldman, 1990; Hay, 1998; Fried, 2000; Chow & Healey, 2008; Devine-Wright, 2014). Whilst these studies foreground place attachment dynamics, there is a lack of research that investigates the changing nature of intensity of place attachment and varieties of people-place relations across the life course (Devine-Wright, 2014).

Research aims: This study therefore seeks to investigate the patterns of people's varieties of people-place relations across the life course of individuals as located within a socio-cultural context (termed 'narrative themes' or 'life-place trajectories'), the processes informing or underlying these life-place trajectories, and the ways in which they are seen to inform identification with

specific types of people-place relation and place-related symbolic meanings to the current residence place. In so doing, the study further seeks to confirm Hummon (1992), Lewicka's (2011b) and Devine-Wright's (2013a) existing typology of people-place relations and attempts to reveal novel varieties of place orientation.

2. A place-based approach to understanding public responses to electricity infrastructure development proposals:

The concept of place disruption refers to the disruptive impact of ecological or human-induced change upon both emotional attachments to places and place-based identities (Brown & Perkins, 1992; Inhalan & Finch, 2004). An emerging body of literature has explored the role of energy infrastructure development proposals in leading to place disruption amongst members of local communities, resulting in potential negative attitudes and place-protective action towards project proposals (Devine-Wright, 2009, 2011a, 2013a). Studies have subsequently examined associations between intensity or varieties of place attachment and levels of social acceptance toward various infrastructure proposals (Vorkinn & Riese, 2011; Devine-Wright, 2013a), as well as congruence between social representations of place and interpretations of energy infrastructure development proposals (Devine-Wright & Howes, 2010; Devine-Wright, 2011a, b; Anderson, 2013). See the 'critical literature review' chapter for a more in-depth review of this research (section 5.2.1).

Whilst these studies are insightful, little is known as to how particular 'life-place trajectories' might inform people's experiences of and responses to a transmission power line proposal (as well as to other human developments). Furthermore, whilst congruency between place and project-related symbolic meanings has been the subject of investigation within studies relating to renewable energy projects, there is little research - with the exception of a study by Cotton & Devine-Wright (2013) - that explores perceived fit between place and project-related symbolic meanings within the context of a transmission power line proposal.

Research aims: In response, this study seeks to explore the ways in which particular life-place trajectories are seen to inform people's experiences of and responses to a transmission power line proposal in the UK. Furthermore, this

research seeks to investigate the perceived congruence between place and project-based social representations and subsequent responses toward a power line project.

3. The role of project-based factors in shaping responses to energy infrastructure development proposals:

A strand of research has investigated the role of 'project-based' factors in shaping responses to energy infrastructure proposals. This has involved research into the fairness of decision-making processes (procedural justice), the fair allocation and distribution of resources (distributive justice), perceived positive and negative impacts, and trust in social actors (Lima, 2006; Devine-Wright et al, 2010; Cotton & Devine-Wright, 2011a; Devine-Wright, 2011b, 2013a). Whilst the above-mentioned studies are extremely insightful, there has been a relative lack of qualitative-oriented research (with the exception of studies by Cotton & Devine-Wright, 2010, 2011a) that explores the co-construction of project-based factors and their role in influencing responses to a transmission power line proposal. Research into project-based factors have, with the exception of studies by Cotton and Devine-Wright (2011a, 2011b), tended to adopt an individualistic socio-cognitive perspective and have typically utilised questionnaire survey methods in order to establish the predictive significance of these factors in explaining stance toward infrastructure developments. The use of a qualitative interview-based method (such as focus group interviews) will allow for a deeper understanding of the role of co-constructed project-based meanings in shaping responses toward a transmission power line proposal.

In addition, only one study to date (Devine-Wright, 2013a) has combined place and project-based research pathways in explaining public responses to an electricity infrastructure development proposal. Devine-Wright used hierarchical logistic regression analysis amongst a representative sample of Nailsea residents (South-West England) in order to establish the predictive significance of socio-demographic, place and project variables in explaining objections to the Hinckley Point C transmission power line proposal. Whilst insightful, this study is limited in that it did not include varieties of non-attachment to place (place

relative, place alienated and placeless) or place and project representations/meanings.

Research aims: In light of these limitations, this PhD thesis seeks to investigate the relative importance of socio-demographic, place and project-based factors in explaining stance towards a transmission power line proposal. Building on Devine-Wright's (2013a) study, this research will include varieties of non-attachment to place as well as place and project-based symbolic meanings. A further research aim is to employ qualitative interview based methods to explore the role of project-based factors in shaping people's responses towards a transmission power line proposal.

4. Theoretical framework – Social Representations Theory:

Social Representations Theory positions knowledge as socially constructed and mediated through everyday interaction and discourse amongst groups of individuals sharing both similar and diverse beliefs and experiences (Augoustinos et al., 1995). The social psychological theory developed out of a critique of the socio-cognitive trend in the discipline which tended to focus, both in theory and methodology, solely upon the cognitive content and processes of individuals. The socio-cognitive approach is deemed problematic in that it overlooks the social construction and elaboration of social meaning and behaviour. For Moscovici (1984), psychological states are collectively determined through the social representations that groups co-construct and share.

Symbolic coping designates the formation and elaboration of social representations and describes the processes (anchoring and objectification) through which an unfamiliar social object is assimilated and integrated into a social group's existing stock of socio-cultural meanings (Wagner et al., 1999; Batel & Devine-Wright, 2014). This process thus functions to enable individuals to position themselves in their material and social worlds, and allows for collective communication amongst members of a social group regarding a novel social object or event (Frouws, 1998; Wagner et al, 2009). A social representations approach, whilst mindful of the individual cognitive positionality of such representations, stresses the social and cultural level at which social

representations are co-constructed and shared by members of a social group (Farr, 1993).

This PhD research project adopts a social representations theory framework to the study of people-place relations which acknowledges and conceptualises people's personal socio-psychological emotional relationships with place(s) - i.e. their life-place trajectories and varieties of people-place relations to the current residence place - are situated and embedded within wider social representations of place and of ways of relating to place generally (Manzo & Perkins, 2006; Devine-Wright, 2009). Research into people-place relations within environmental and social psychology has tended to be dominated by a socio-cognitive approach to the study of place attachment and varieties of people-place relations. Social representations theory can usefully assist in addressing this limitation by acknowledging that people's place relations are not only observable or situated at the personal or individualistic socio-cognitive level, but are also situated within wider socio-cultural level meanings relating to place and ways of relating to place generally.

Some researchers have adopted a Social Representations Theory perspective to the study of actual and proposed place change, such as controversial infrastructure siting proposals, investigating the congruence between place-related symbolic meanings (or social representations of place) and interpretations of place change (Devine-Wright, 2009; Devine-Wright & Howes, 2010; Anderson, 2013). Social representations theory can usefully contribute to understanding and elucidating co-constructed meanings, ideas and beliefs around a localised and novel form of place change (such as a high-voltage transmission line proposal) through an appreciation of the process of objectification inherent within symbolic coping, whereby an anchored mental social object becomes a concrete property of a group's social reality, in the form of an image, metaphor or symbol (Devine-Wright & Devine-Wright, 2009)

The process of symbolic coping implicit within social representations theory will be brought to the fore in the first two qualitative interview-based study chapters of this thesis, by exploring the ways in which objectified representations - in the form of socially shared metaphors and idiomatic expressions - of ways of characterising and relating to place, and of characterising a proposed power

line proposal, are constructed and expressed by participants in order to situate their own personal relations to the residence place and to situate the proposed power line in relation to existing representations of surrounding countryside areas.

5. Context of study:

The particular high-voltage power line proposal selected for this study is the Hinckley Point C grid connection, which is a proposal put forward by the UK transmission network operator National Grid to construct a new 400kV overhead transmission line (of approximately 60km) to connect a proposed new nuclear power station at Hinckley Point, in Somerset, to the existing electricity network near Seabank by 2019 (National Grid, 2014).

Qualitative and quantitative-based data collection was conducted in the town of Nailsea in South-West England, where active opposition to the project proposal arose. Current siting proposals by National Grid mean that the proposed power line will be sited in the surrounding countryside to the North-West of the town. The Hinckley Point C power line proposal proved instantly controversial in Nailsea, where a local action group called 'Save Our Valley' (Save Our Valley, 2009), now 'Nailsea Against Pylons' was set up in 2009 to oppose the project and push for undergrounding of the line.

6. Overarching and specific PhD thesis research aims and questions:

Whilst this introduction has already identified a series of research aims that will inform the three empirical study chapters to come, this PhD thesis can be seen to be based upon two broader overarching research questions from which more specific research aims and related questions are seen to ensue.

- *Overarching research question one:* To what extent does understanding people's place relations across the life course (*life-place trajectories*) enable us to better understand processes of attachment and/or detachment from the current residence place?

This broader research aim can be seen to stem from limitations of 'structural' approaches to the study of people-place relations that tend to adopt cross-sectional research designs and are thus only able to capture place-based

concepts (i.e. place attachment, varieties of people-place relations) in relation to one place at one particular point in time. This approach thus overlooks the dynamic (or non-dynamic) nature of people's place relations over time and across residence places, and the ways in which these life-place trajectories may inform our understandings of attachment/detachment to the current residence place (or the formation of particular varieties of people-place relations to this locale). This broader research question thus attempts to attend to the limited amount of research on people-place relations that investigates processes guiding attachment or detachment to place(s) across people's lives.

- *Overarching research question two*: What factors are seen to inform and shape local resident's views and responses towards a high-voltage transmission power line proposal (and energy infrastructure proposals more generally)?

Research has shown that both place and project-based factors inform our understandings of why people hold divergent positions towards forms of place change, such as energy infrastructure development proposals. Whilst a range of studies have sought to adopt a place-based approach to understanding public responses to such proposals (Devine-Wright, 2009) – for example, investigating associations between place attachment and public acceptance, the predictive significance of varieties of place attachment in explaining public acceptance, and congruence between place and project-based symbolic meanings - these have typically overlooked the ways in which people's residential biographies (or life-place trajectories) inform people's experiences of and responses toward such projects. This PhD thesis thus makes a novel contribution by exploring the ways in which particular life-place trajectories are seen to inform people's experiences of and responses to a transmission power line proposal in the UK. This thesis also attempts to understand in more depth the ways in which project-based factors, such as procedural and distributive justice, are seen to shape local responses toward a transmission power line proposal.

Both of these overarching research aims are positioned with a theoretical framework (social representations theory) that acknowledges that individuals' place relations over the life course and their beliefs, thoughts and feelings towards a proposed form of place change are situated and embedded within

wider socio-cultural level meanings or representations of place and ways of relating to place generally (as outlined in section 4 of this introduction). These overarching research questions are explored in more detail through the formulation of specific research questions that are outlined in figure 1.1 below and are organised according to three empirical study chapters that employ different methods of data collection. The specific research aims of each empirical study chapter are presented in section 8 of the forthcoming literature review chapter.

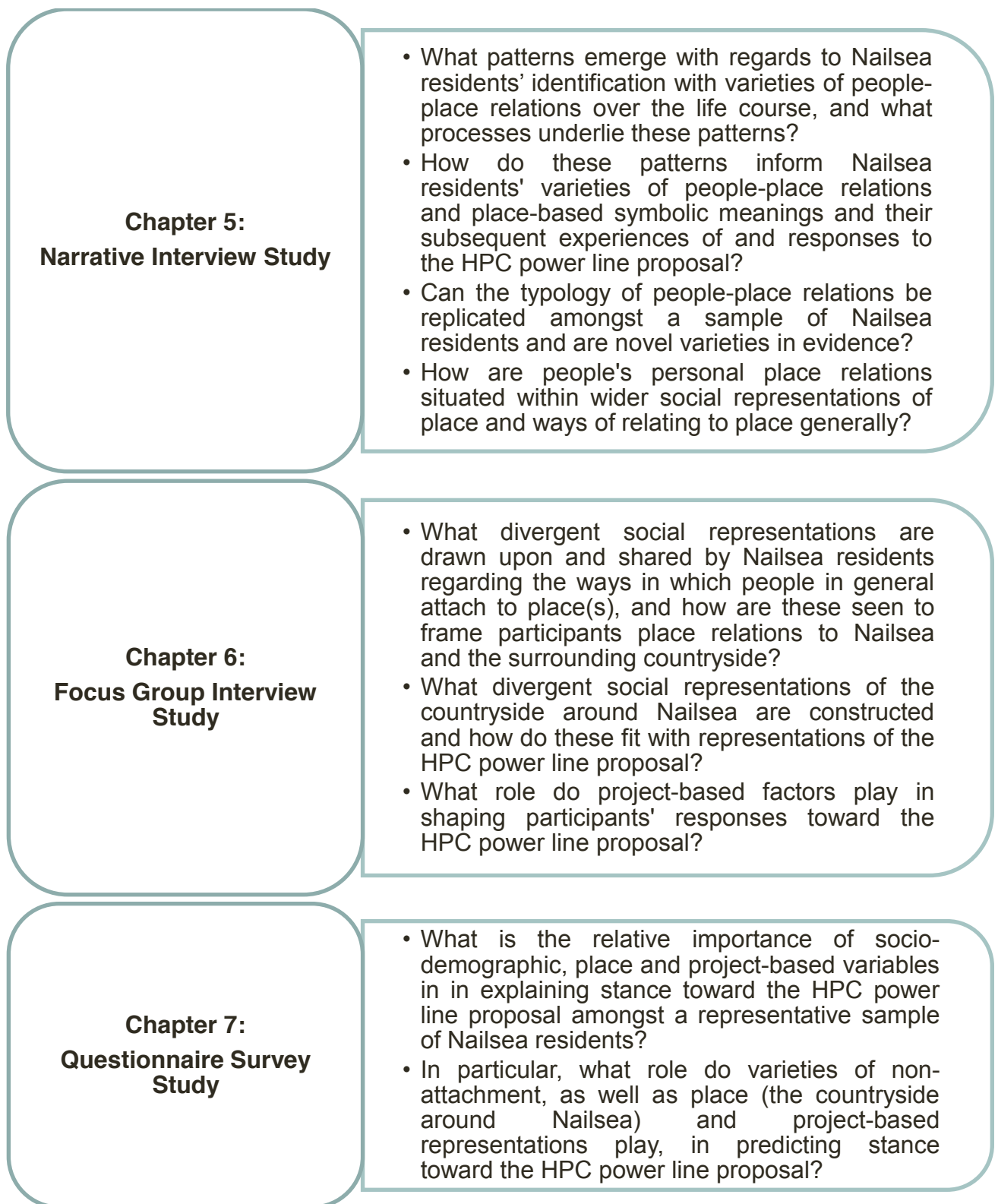


Figure 1.1: Specific research questions addressed in empirical study chapters 4-6.

7. Thesis structure:

The thesis comprises seven chapters. Chapter two provides a background to the specific research aims and empirical studies of this thesis in the form of a critical literature review. In particular, this chapter provides a critical review of literature and research on people-place relations, place disruption and place change in the context of energy infrastructure development proposals, and project-based factors shaping public responses to energy infrastructure projects. This chapter also outlines the theoretical framework adopted for this PhD thesis, outlining its utility and application to the study of people-place relations and project-based factors.

Chapter three provides a background to the UK electricity grid network and its future development. Specifically, this chapter will outline key policies relating to UK energy and electricity grid infrastructure, the key stakeholders involved, the planning consultation process undertaken by the developer National Grid, and details regarding the Hinckley Point C grid connection and town of Nailsea.

Chapter five reports the findings from a series of 25 narrative interviews conducted with residents of Nailsea and investigates the patterns of people's identification with varieties of people-place relations across the life course (termed 'narrative themes' or 'life-place trajectories'), the processes informing or underlying these life-place trajectories, and the ways in which they are seen to inform identification with specific types of people-place relation and place-related symbolic meanings to the current residence place (Nailsea and the surrounding countryside). In so doing, the study further seeks to confirm Hummon (1992) and Lewicka's (2011b) existing typology of people-place relations and attempts to reveal novel varieties of place orientations. It further seeks to explore how these patterns (or life-place trajectories) are seen to inform Nailsea residents' experiences of and responses to the HPC power line proposal. This study, whilst adopting a more in-depth focus upon individual's life-place trajectories and varieties of people-place relations to Nailsea, situates these personal place relations within socio-cultural representations of place and ways of relating to place generally.

Chapter six reports the findings from a set of five focus group interviews with residents of Nailsea and attempts to build on findings from the preceding

narrative interview chapter. This study seeks, first, to explore divergent social representations of the ways in which residents in general relate to place(s) and the ways that these representations inform their place relations to Nailsea and the surrounding countryside. In a second instance, the study seeks to explore divergent representations of the countryside around Nailsea and their congruence with interpretations of the HPC power line proposal. Third, the study investigates the role of project-based factors in shaping responses to the power line project. Focus group interviews were deemed well-suited to the research aims of this study, since they allow for better emphasis to be placed upon opening up the socio-cultural context or meanings within which individuals' thoughts, feelings and ideas are situated, via inter-personal communication.

Chapter seven reports findings from a questionnaire survey study (n=264) that combined divergent research pathways and used hierarchical linear regression analysis to establish the predictive significance of a range of socio-demographic, place and project-based variables in explaining stance toward the HPC power line proposal. The questionnaire survey employed measures situated at both the individual/socio-cognitive and societal/socio-cultural levels of analysis.

In the final concluding chapter the results from the three preceding empirical studies are integrated and discussed. The implications of these findings for developer-led mitigation measures and areas for future academic research are further outlined.

Chapter Two: Literature Review

1. The context for expansion of the UK transmission grid system:

In view of the threat of human-induced climate change, the UK government has established a series of carbon emissions-cutting policies which aim to reduce greenhouse gas emissions and mitigate human-induced global warming. These include:

- The Climate Change Act of 2008 set legally binding targets committing the UK to a 34% reduction in greenhouse gas emissions by 2020 and an 80% cut in emissions by 2050, both based on the 1990 baseline (DECC, 2013a).
- As part of the 2008 Climate Change Act, a legally binding carbon budgeting system was designed to cap emissions over five year periods beginning in 2008. The fourth carbon budget, covering the period 2023-2027, was set in law in June 2011 and is committed to a 50% reduction in greenhouse gas emissions below 1990 levels (DECC, 2013b).
- The 2009 UK Low Carbon Transition Plan details actions to be taken to meet the 34% reduction in greenhouse gas emissions by 2020, comprising carbon emission reductions in the power sector and heavy industry, transport, homes and communities, workplaces and jobs, farming, and land and waste sectors (DECC 2009).
- The coalition government's 2011 'Carbon Plan' outlines strategies for achieving the emissions reductions committed to in the first four carbon budgets leading up to 2027 and sets out a future low-carbon energy mix, comprising the de-carbonisation of electricity through renewable electricity generation, nuclear power, and the use of carbon capture and storage (DECC 2013c). Recent media coverage and policy documentation would suggest that the extraction of UK sourced shale gas will likely form part of this future energy mix (DECC, 2014a).

UK energy production plays a central role in attempts to reduce carbon emissions, since the energy supply sector has typically been the largest contributor to UK-based CO₂ emissions based on statistical figures from 1990-

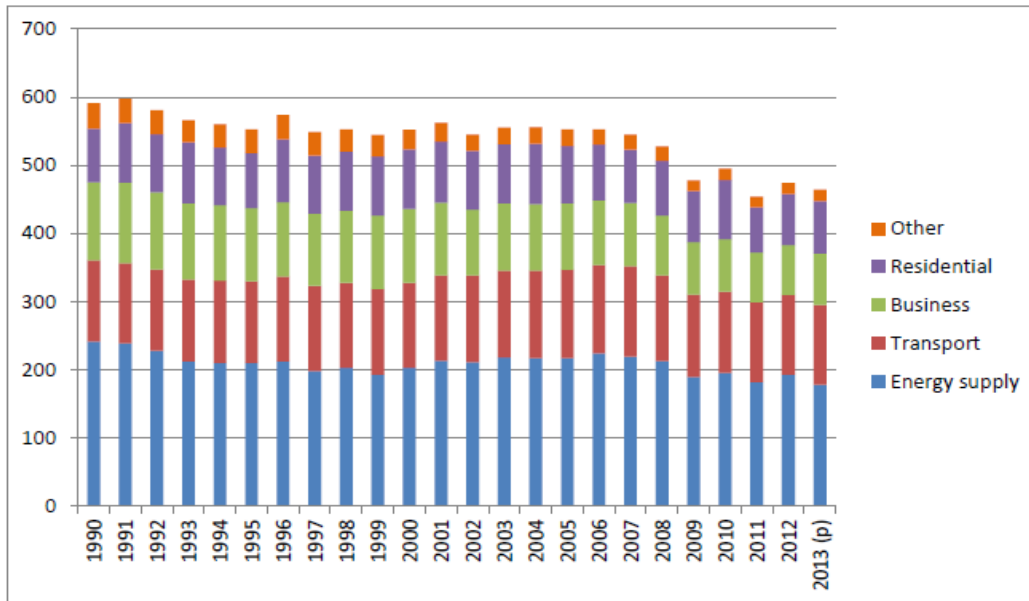
2013 (DECC, 2014b). Provisional values for 2013 suggest an estimated 38% of CO₂ emissions were from the energy supply sector, against 25% from transport, 17% from residential and 16% from business, with 3% from other sources. Figure 2.1 below shows that amongst sectorial sources of UK CO₂ emissions from 1990 to 2013, the energy supply sector has produced by far the greatest output of CO₂ (Mt), with figure 2.2 showing the same trend. Despite an approximate reduction of 21% in energy supply sector CO₂ emissions over from 1990-2013, figures 2.1 and 2.2 show that the electricity supply sector continues to be a leading contributor to overall UK CO₂ emissions (DECC, 2014b).

	1990	1995	2000	2005	2010	2012	2013(p)
Energy Supply	241.5	210.0	203.1	217.3	195.5	192.9	178.5
Transport	119.6	119.9	124.9	129.2	119.1	116.9	116.7
Business	113.7	107.3	108.2	97.6	77.2	73.3	75.4
Residential	79.0	80.8	87.1	84.3	86.6	74.9	76.9
Other	37.3	34.8	28.9	24.5	16.8	16.0	16.8
Total	591.1	552.9	552.2	552.8	495.2	474.1	464.3

Note: (p) 2013 estimates are provisional.

Figure 2.1: Sources of carbon dioxide emissions 1990 – 2013 (provisional), (MtCO₂) (DECC, 2014b)

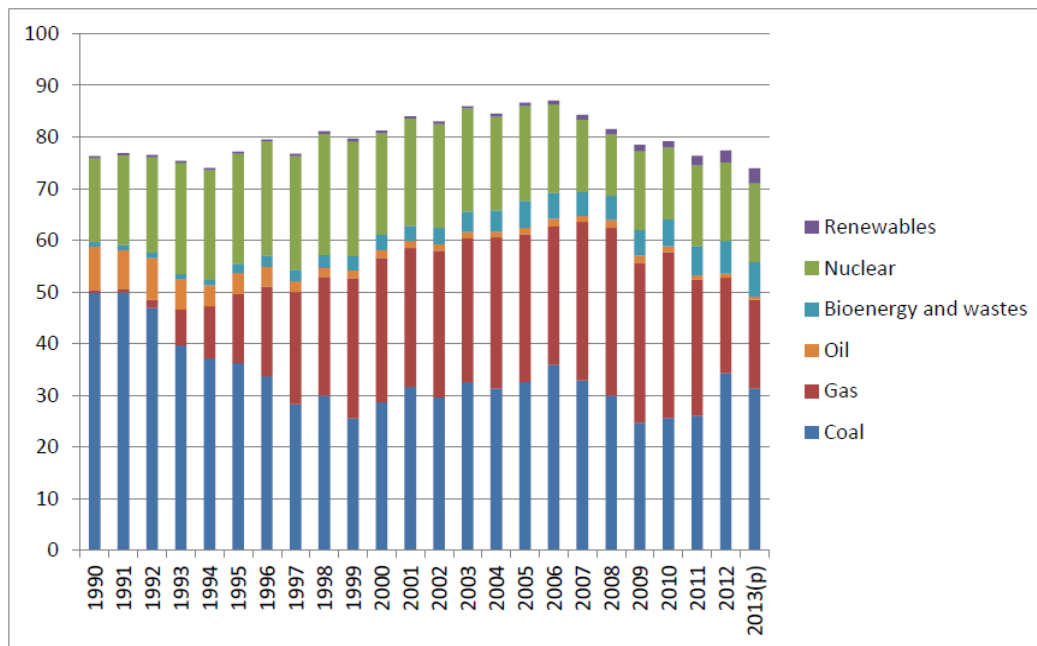
In view of reducing greenhouse gas emissions within the energy supply sector, the 2011 Carbon Plan (DECC, 2013c) set out a future low-carbon energy mix comprising renewable energy technologies (in particular large-scale on-shore and off-shore wind farm developments), a new generation of nuclear power stations, and gas and coal-fired power stations fitted with carbon capture and storage technology.



Note: (p) 2013 estimates are provisional.

Figure 2.2: Carbon dioxide emissions by source, 1990 – 2013 (provisional), (MtCO₂) (DECC, 2014b)

As stated in the 2011 National Infrastructure Plan (National Infrastructure Plan, 2011: pp.54, section 3.65), ‘The UK...has ambitious goals to reduce the carbon intensity of its economy, and the generation mix of the electricity system is likely to shift towards lower carbon sources over the next two decades’. Figure 2.3 shows that based on 1990 values, there has been an overall decrease in electricity generated from fossil fuels (oil, gas, and coal), and more electricity generated from low-carbon sources (renewables, nuclear, and bioenergy and wastes). Investing in future renewable energy and new nuclear power infrastructure developments for electricity generation are crucial to decarbonising the energy supply sector and enabling the government to attain future carbon-cutting targets (DECC, 2014b).



Note: (p) 2013 estimates are provisional.

Figure 2.3: Fuel mix for UK electricity generation, 1990-2013 (provisional) (MtOe) (DECC, 2014b)

The development of renewable energy technologies are therefore an important step toward achieving UK carbon reduction goals. The 2009 EU Renewable Energy Directive (Renewables Energy Directive, 2009) sets out a legally binding target committing the UK to achieve 15% of its energy consumption from renewable sources by 2020 – this means that 30-40% of electricity generation will have to come from renewable sources (RenewableUK - UK Wind Energy Database, 2014).

Wind energy is currently considered the most affordable renewable option. In 2007, wind energy became the largest renewable generating source, contributing 2.2% of the UK's electricity supply (the majority comprising on-shore wind power) with more recent target forecasts suggesting a 30% contribution to UK electricity supply by 2020. The UK has subsequently experienced significant development of small and large scale on-shore and off-shore wind farms over the last 20 years - there are collectively 688 operational on-shore and off-shore wind projects throughout the UK today, providing a total of almost 12GW of electricity, with an additional combined projection (wind farms currently under construction or with planning consent) of 1126 wind projects and an estimated additional total capacity of 18GW of electricity in the

future (RenewableUK - UK Wind Energy Database, 2014). In addition, wave and tidal energy industry, whilst providing a current installed capacity of 9 Megawatts (MG), is set to deliver over 120 MW of electricity output by 2020 (RenewableUK – Wind and Tidal Energy, 2014).

Nuclear energy also has a significant role to play within the UK's low-carbon energy mix – there are currently sixteen operational nuclear power reactors across the UK, with the planned deployment of eleven new power reactors (equivalent to around 16GW of new nuclear capacity) to be fully operationalized between the period 2018 to 2025 due to older nuclear power stations being taken off-line (World Nuclear Association, 2014).

With a projected increase in electricity demand and the surge in low-carbon renewable energy and new nuclear power developments throughout the UK, the increased deployment and expansion of the existing electricity network is foreseeable (DECC – Electricity network delivery and access, 2013). This is due in part to the nature of large-scale renewable energy developments, which tend to be more distant from sites of high electricity consumption and are often more variable in electricity output. Expansion of the current UK electricity transmission grid is therefore essential in order to link up more distant sites of renewable energy generation, as well as new sources of nuclear power, to sites of major consumption, and to counteract the variable nature of such electricity supply. This strategy is also to be employed at a European level with the development of the 'Super Smart Grid', which will ensure reliable and consistent supply of low-carbon renewable-based electricity via large-scale trans-national expansion of existing grid systems (Renewables Grid Initiative, 2011).

2. NIMBYism and local opposition to energy project proposals:

Opposition and negative attitudes to energy infrastructure proposals have been documented in empirical studies relating to electricity network infrastructure (Cotton & Devine-Wright, 2011; Devine-Wright et al, 2010; Priestley & Evans, 1996; Soini et al, 2011), renewable energy developments (Devine-Wright & Howes, 2010; Devine-Wright, 2011a; Vorkinn & Riese, 2001), and proposals to construct waste incinerator facilities (Lima, 2006).

Energy infrastructure development proposals have at times been met with local opposition. In particular, high-voltage power line siting proposals in the UK have proven controversial, and in some cases have been met with vehement public opposition, resulting in planning delays and financial cost for developers (Jay, 2004). Such cases include: (1) The 50-mile 400kV Lackenby – Picton – Shipton line proposal put forward in the 1990s; (2) The 220km 400kV Beaully to Denny power line proposal in Scotland which received planning consent on 6th January 2010; (3) The present 60km 400kV Hinckley Point C power line proposal in the South-West of England for which a planning application was recently submitted for review by the Planning Inspectorate; (4) The present 50km 400kV power line proposal in mid-Wales which is in the pre-application stage of the planning process (National Grid Website, 2014).

Local opposition to energy infrastructure proposals has often been described and explained according to the pejorative label of NIMBY (Not In My Back Yard) responses (Dear, 1992; Devine-Wright, 2009), where objectors are portrayed by developers and the media (Cotton & Devine-Wright, 2010,2011; Toynebee, 2007) as ignorant, irrational or self-interested individuals or groups: 'NIMBYs are usually selfish and parochial individuals who place the protection of their individual interests above the common good' (Burningham et al., 2006:5). The term is used 'to imply that citizens have illegitimate or irrational selfish (or narrow) reasons for opposing facilities' (Hunter & Leyden, 1995:602). Local objectors are problematized as having too little or incorrect knowledge of the likely impacts of a development proposal (Freudenberg & Pastor, 1992) and industry actors subsequently hold a 'knowledge deficit' view of such people, presuming that individuals are ignorant of technological issues and unable or unwilling to engage with policies around new technologies (Cotton & Devine-Wright, 2010, 2011). Subsequent 'remedial' measures employed by industry actors typically involve information provision and placation with the intended expectation that such measures will alleviate the public's knowledge deficit and allay local conflict and opposition towards energy project proposals (Cotton & Devine-Wright, 2010).

However, numerous academics have recognised the limited value of explaining local opposition according to a pejorative view of NIMBY objectors, and the concept has subsequently been critiqued in a number of ways. Firstly, the

concept is seen to overlook the wider range of public responses and attitudes that may be expressed towards a development proposal, such as ambivalence or support. Ellis et al (2007), for example, undertook case study research that attempted to gauge the range of public responses at play in relation to an offshore wind farm proposal in Northern Ireland. Findings from a Q-methodology suggested that there were in fact four divergent oppositional and supportive discourses of public response to the wind farm proposal at work. The four oppositional discourses differed but tended to highlight strong anti-wind and anti-developer perspectives coupled with varying degrees of concern for local site-specific impacts and concerns of the scheme. The four discourses of support tended to emphasise the need to sacrifice the locality to achieve greater sustainability-related goals, a positive view of wind developers, and concern over low-carbon energy generation.

Secondly, the concept tends to overlook the multitude of underlying motivations or 'roots of opposition' for public resistance to infrastructure proposals. As Wolsink (2000:57) states: 'By labelling all protests as NIMBY one misses the multitude of underlying responses'...'we can distinguish different roots of opposition for resistance'. Indeed, research into public responses to energy infrastructure developments suggests a range of motivational factors for opposition, ranging from place-based concerns (Devine-Wright, 2009; Devine-Wright & Howes, 2010; Devine-Wright, 2011a, 2011b), to issues around lack of social justice (Cotton & Devine-Wright, 2010, 2011; Devine-Wright et al, 2010; Lima, 2006; Mannarini et al, 2009), social trust (Devine-Wright, 2013a) and perceived negative impacts (Cotton & Devine-Wright, 2010; Priestley & Evans, 1996; Soini et al, 2011). This range of motivational factors will be outlined in greater detail within sections five and seven of this literature review.

There is, thirdly, limited empirical support for the view that local objectors function according to NIMBY-like characteristics of selfishness and ignorance. Wolsink (2000), for example, undertook interviews conducted with local people in the Netherlands before and after the construction of a wind farm and found that only 25% of respondents clearly looked at the costs and benefits of turbines in terms of individual utility, or self-interested concern. Wolsink (2000:55) subsequently concludes that: 'The (NIMBY) syndrome really exists but its significance remains very limited'.

Finally, Devine-Wright (2011c) suggests that there is 'a rather destructive and self-fulfilling cycle at play', whereby local opposition is interpreted by developers and policy makers as evidence of NIMBYism, which then tends to lead to engagement strategies that attempt to subdue NIMBY responses, but instead lead to more local opposition. This is once again re-interpreted by developers as evidence of NIMBY responses (see figure 2.4). This suggests a certain futility of energy developers evoking NIMBY type assumptions with regards to local objectors and points to the limited utility of the NIMBY concept when attempting to understand the complex nature of public responses to energy infrastructure development proposals.

Academics investigating public responses to energy project proposals have attempted to go beyond the NIMBY concept by adopting a number of alternate theoretical approaches. These include; (1) the use of an individualistic socio-cognitive framework for explaining psychological factors shaping renewable technology acceptance (Huijts et al., 2012), where acceptance is seen to be influenced by attitudes, social norms, perceived behavioural control and personal norms; (2) a framework that highlights the interactions between publics and renewable energy technology (RET) actors (Walker et al., 2011), where interviews with industry, policy and public social actors sought to investigate the ways in which 'publics' engage with renewable technologies and the ways in which developers engage with publics in different ways; (3) a place-based approach that re-frames NIMBYism as a form of place-protective action arising from disruption to existing place bonds and threat to place-based identities – to be reviewed in section 5 of this chapter (Devine-Wright, 2009); (4) the proposal put forward by Batel and Devine-Wright (2014) to adopt a social representations theory approach to understanding people's responses to large-scale energy technologies.

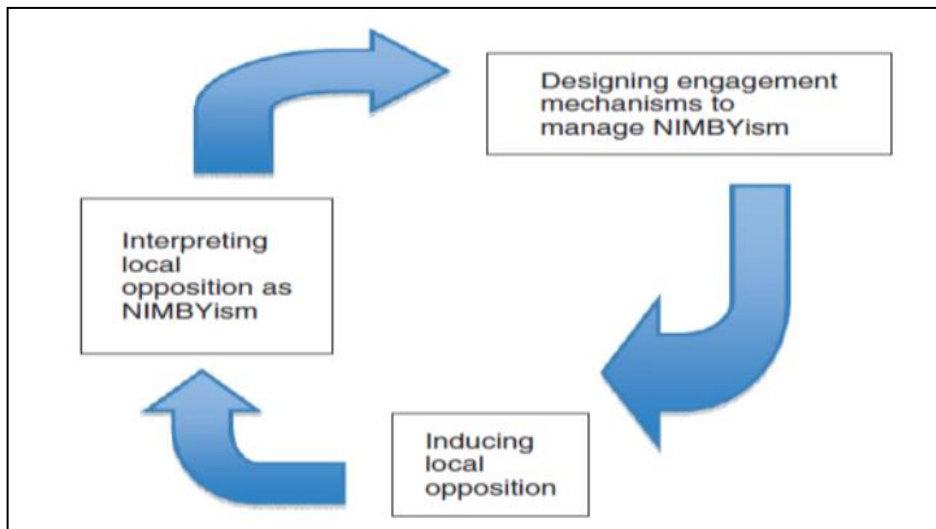


Figure 2.4: The self-fulfilling cycle of NIMBYism in public engagement (Devine-Wright, 2011c:23).

3. A place-based approach to understanding public responses to energy development proposals:

In response to criticisms of the NIMBY concept, Devine-Wright (2009) posits a ‘place-based’ approach to understanding responses to energy project proposals, where opposition is understood as a way of resisting forms of place change that are seen to potentially disrupt existing place attachments and threaten place-based identities. Rather than alluding to pejorative NIMBY assumptions in attempting to explain objection, local opposition is recast as ‘place-protective action’ – in other words, as active resistance to a form of place change. A number of empirical studies have employed such an approach within the context of renewable energy project proposals (Devine-Wright & Howes, 2010; Devine-Wright, 2011a, 2011b, 2013a; Vorkinn & Riese, 2001), but there remains a relative dearth of research that utilises such an approach within the context of electricity network developments. My PhD thus adopts a place-based perspective to understanding and accounting for people’s experiences of and responses to an overhead transmission power line proposal. The coming sections will provide a critical overview of place theory, focusing upon people-place relationships and the concept of place disruption, and will outline what a ‘place-based’ approach comprises within the context of this PhD thesis.

4. Place theory and people-place relations:

A number of research traditions have, in accordance with divergent paradigmatic and research program level approaches, attempted to theorise and conceptualise the relationships that exist between people and place (Patterson & Williams, 2005). Perhaps the most prominent approaches to have arisen since the 1970s comprise the phenomenological-oriented approach present amongst humanistic geographers, the social constructivist approach amongst human geographers with the concept of 'Sense of Place', and the positivist-oriented individualistic approach present within environmental and social psychology, which has more recently taken a turn along more social constructivist and discursive lines. Each of these theoretically-oriented approaches will be critically reviewed in the following sections.

4.1 Humanistic Geographers' accounts of the people-place bond;

The emergence of humanistic geography in the 1970s and its concern with environmental issues is intimately bound to phenomenology and stems from an inherent reaction against the positivist spatial science of the time (Rodaway, 2004), whereby '...studies of place were often relegated to 'mere description' while space was given the role of developing scientific law-like generalisations' (Cresswell, 2004:19). Humanistic geographers, the likes of Tuan (1974, 1977), Relph (1976) and Seamon (1982), were deeply concerned with the failure of the spatial sciences to take into account the subtle, diverse and deep-rooted nature of people's experiences with *place*. They adopted a phenomenological perspective which was seen to transcend the Cartesian mind-body dualism and instead viewed consciousness as intimately connected with the external 'world' within which people live out their everyday lives (Relph, 1976). For humanistic geographers, this pre-scientific, trans-historical relationship is not so much between individuals and their 'lived world', but more specifically between people and *place*: 'The essence of place lies in the largely unselfconscious intentionality that defines places as profound centres of human existence' (Relph, 1976:43).

A primary preoccupation of humanistic geographers was to differentiate the concepts of *space* and *place*. Both Tuan (1977) and Relph (1976) consider space as representative of an abstract locational concept, lacking definite form,

character and content. Relph (1976:8) thus suggests that space is '...amorphous and intangible and not an entity that can be directly described and analysed'. Place, on the other hand, is seen as space that becomes familiar as it is invested with meanings, values and emotions, via direct lived experience over time: 'What begins as undifferentiated space becomes place as we get to know it better and endow it with value' (Tuan, 1977:6). Place is thus understood as that part of external reality directly experienced via human consciousness and emphasis is placed on the subjective nature of such experience. Conversely, space is viewed as an objective and abstract concept, distant and detached from people's everyday interactions with the world (Cresswell, 2004). *Place* is seen to exist at a range of scales, from one's 'favourite armchair' all the way up to planet earth and is thus not seen as necessitating a fixed or bounded location (Tuan, 1977:149).

Much work undertaken by humanistic geographers highlights the bonds that emerge between people and place. The term *topophilia* is used to refer to the affective or emotional connection that occurs between people and places central to their lives (Duncan & Duncan, 2001). Topophilia accounts for 'all of the human being's affective ties with the material environment', that are derived from aesthetic appreciation, familiarity and awareness of the past through memory (Tuan, 1974:93). The concept can be seen to constitute both a positive emotional bond and a site for place and identity formation. The 'home' place is viewed as the most profound site of human attachment and identity-making – 'Home, in its most profound form is an attachment to a particular setting, a particular environment, in comparison with which all other associations with places have only a limited significance' (Relph, 1976:40) – and is seen as a site of safety, stability, refuge and pause (Dupuis & Thorns, 1996). Tuan (1980) further evokes the related concepts of *rootedness* and *sense of place*, where rootedness comprises an unselfconscious bond that arises from long-term familiarity with a place, and sense of place refers to a self-conscious and reflective relationship to a place (Easthope, 2004).

The contrasting concept of *topophobia* designates fear, dislike or estrangement from a place (Tuan, 1977). This can be seen to arise, as Relph (1976) suggests, from the sense of 'drudgery' that develops from long-term residence in a place and a subsequent desire to escape in pursuit of change and novelty.

Alternatively, recent literature by Murphy (2011a, 2011b, 2011c) points to the need to consider and develop the notion of *exile* in relation to place. Through a 1500km walk along the west coasts of Ireland and Scotland, Murphy (2011a) adopts a 'walking narrative' approach to exploring issues around Gaelic history, culture and language. Throughout the walk, Murphy encounters a series of monuments and instances that emphasise loss and displacement of people from their Gaelic roots and 'home' place. A poignant experience occurs when Murphy (2011c), near the end of his walk, encounters the Barvas wind farm conflict, which relates to objections to a wind farm proposal back in 2004 in an area of Lewis (Scotland) called Barvas Moor. Part of local people's justifications for opposing the proposal stemmed from concerns over the perceived loss of cultural and local distinctiveness, and thus estrangement from Lewis as a place.

The humanistic geographer's phenomenological account of people-place relationships has been critiqued in a number of ways. Firstly, humanistic geographical accounts are problematic in the way that place bonds are presumed to involve and arise from positive experiences and feelings to what are mainly seen as safe, stable and restorative 'home' places. Manzo, for instance, (2003, 2005) argues that people's emotional relationships with residence places encompass a broad range of emotions including negative and ambivalent feelings. In addition, feminist geographers have argued that the place where one lives can be experienced as a site of patriarchal oppression and struggle for women (Massey, 1995).

Secondly, criticism can be levelled towards the anachronistic, localised and apolitical notions of place (evoked by Tuan, 1977) which are seen to be the site of deeply rooted, trans-historical attachments. This critical stance stems from a broader transition away from the humanist approach in human geography, towards the recognition of a global sense of place (Massey, 1995:59), which re-conceptualises place as '...a meeting place, the location of the intersections of particular bundles of activity spaces, of connections and interrelations, of influences and movements'. This understanding recognises that a notion of place as secure, coherent and bounded does not necessarily hold within the context of an increasingly globalised world where the interdependencies and interrelations between places are unequal. Furthermore, the positivist-oriented environmental psychology approach tends to reproach humanistic geographers

for what are seen as ambiguous and less defined accounts of people-place relations lacking clear conceptual clarity (Patterson & Williams, 2005).

4.2 *Human Geography and a 'Sense of Place'*;

Literature in human geography since the 1980s has also made important contributions to conceptualisations of place, understandings of people's sense of place, as well as notions around contested place identities (Castree, 2009; Cresswell, 2004; Massey & Jess, 1995; Massey, 2005, Rose, 1995).

Clear parallels exist here with Agnew's (1987) 'sense of place', which is seen to involve '...a personal *orientation* toward place, in which one's understandings of place and one's feelings about place become fused in the context of environmental meaning' (Hummon, 1992:262). The concept of 'Sense of Place' in human geography is a term designating that places are infused with both meanings and personal feelings. In contrast to environmental psychology, where a conceptual distinction occurs between *place attachment* and *place identity*, sense of place is seen to encompass both elements of meanings and emotions imbued in place(s) under one holistic concept.

In a chapter by Rose (1995), the term sense of place is affiliated far more strongly with the meanings that people give to a place, which contribute in forming a central part of people's identity. Rose recognises that sense of place should be viewed as collectively constructed and shared, but that such constructions should also be understood within the context of wider socio-economic, political and cultural processes. Short (2002:51), for example, explores the meanings attributed to the English rural landscape in shaping people's responses to wind farm developments. It is suggested that both rural and urban dwellers in England sustain romantic and nostalgic notions of a *natural* English rural landscape, which has been produced and maintained by 'chocolate-box' images of what constitutes a 'beautiful landscape', as well as by artists of the romantic movement who ennobled rural existence and 'sanitised the realities of day-to-day life in the countryside'. Such idealised and constructed notions of the rural landscape are seen to conflict with the increasingly industrialised, technological and changing state of today's *countryside*. Batel and Devine-Wright (2014) further propose that socially constructed ideas about the countryside have become institutionalised in

legislation on planning and development (for example, through the Town and Country Planning Act, 1947, 1990), thus enhancing their influence and durability across decades.

A prominent debate in contemporary human geography literature on place concerns the effects of globalisation and time-space compression upon our conceptualisations of place and people's notions of a sense of place. Both Harvey (1996) and Massey (1997) provide alternate readings of the impacts of globalisation on the nature of place(s) – the former is based upon what Harvey views as the disturbing emergence of reactionary senses of place, and the latter is based upon an extroverted, open and progressive notion of a 'global' sense of place (Cresswell, 2004). Both perspectives are hinged upon what has been seen as a growing uncertainty over the meaning of place – i.e. the extent to which place is conceptualised and seen as a bounded entity or as part of an open and inter-connected web of different localities given the globalised and increasingly mobile world within which we live.

Tomaney (2014:1) echoes this debate in a paper on the relative lack of research in human geography on local belonging. According to Tomaney, alternate readings of local belonging have arisen in the discipline, one in which local belonging is seen as misplaced in the context of 'the hyper-mobility of (post)modernity', and a second where local belonging is seen crucial to human life, offering a sense of feeling 'safe' and 'at home'. This latter reading resonates with the notion of a deep sense of belonging to a localised 'home' place of safety, stability and pause, evoked by humanistic geographers (Tuan, 1974). Tomaney suggests that a neglect of research on local belonging in the discipline has arisen due to the tendency to 'disparage a local sense of belonging which is set against the progressive potential of a 'cosmopolitan outlook'' (2014:2). Work by Hazel Easthope (2009) however has pointed towards the suggestion that people's identities are informed both by notions of fluidity and mobility and by a sense of localised place attachment. Both readings of localised place belonging can thus be seen to co-exist without one necessarily negating the other.

The notion of a 'politics of place' arose within the discipline in the 1990s (Cresswell, 2004). Social constructions of place identity, it was argued, cannot

be viewed merely as passive or neutral phenomena. As Rose (1995:96) suggests: *'...identity and place are not only articulated positively as a list of elements with which to identify; they are also structured in relation to perceptions of other groups and places as different'*. Instead, constructions of place identity were seen to be based upon networks of power relations, with certain social groups laying claim to particular representations of place (which may be based on a mythical past) in order to control present and future uses of that place: *'What are at issue, we suggest, are rival claims to define the meaning of places and, thereby, rights to control their use or future'* (Massey & Jess, 1995:134). The dimension of power relations implicit in this approach to the study of sense of place is echoed in more recent research in discursive psychology on the role that rhetoric plays in the formation of performance-oriented place attachments and identities (Dixon & Durrheim, 2000; Di Masso et al., 2014).

4.3 Environmental and Social Psychological approaches to the study of people-place relations;

Positivistic accounts of people-place relationships tend to arise within the disciplines of environmental and social psychology. They adopt normative philosophical assumptions that necessitate narrowly and precisely defined theoretical concepts that allow for predominantly quantitative (psychometric), and some qualitative empirical operationalization (Patterson & Williams, 2005). This approach tends to result in the breakdown of the humanistic geographers' phenomenological-oriented understanding of people-place bonds as a holistic whole, into conceptual sub-parts including place attachment, place identity and place dependence, as well as the conceptual breakdown of the 'Sense of Place' concept. This approach has also tended to adopt a predominant focus on an individualistic socio-cognitive level of analysis (Devine-Wright, 2009). More recently, there has been a turn toward a social constructivist epistemological perspective in the study of people-place relations through the adoption of a discursive analytic approach (Dixon & Durrheim, 2000; Di Masso, 2014) and the application of Social Representations Theory to the study of place – related symbolic meanings (Devine-Wright, 2009), given the limitations of a socio-cognitive approach (outlined in more detail in section 4.4 of this chapter).

4.3.1 *Place Attachment*;

Place attachment can be defined as both the process of attaching oneself to an emotionally significant place and a product of this process (Giuliani, 2003; Devine-Wright, 2009). Earlier definitions of place attachment as product refer to the positively experienced emotional connection of an individual or group to the residence place, neighbourhood or home (Brown & Perkins, 1992; Altman & Low, 1992). Attachments to places may be routinely unselfconscious, with individuals becoming aware or conscious of their attachments when place bonds are threatened or disrupted (Giuliani, 2003; Brown & Perkins, 1992). People's attachments to places are seen to fulfil a number of roles, such as providing a sense of security, comfort and continuity through bonding with familiar places (Scannell & Gifford, 2010), enabling the development of interpersonal relationships and contributing to the formation and preservation of individual and group identities. Such conceptions of place attachment have been critiqued for overlooking the range of emotions felt towards a place, including ambivalent and negative feelings (Manzo, 2003), and for understating the broad range of settings towards which people develop attachments, including natural settings, wilderness areas and public places (Hufford, 1992; Korpela et al, 2009).

Conceptual development has led to a tripartite organising framework which unites *person*, *process* and *place* dimensions into an all-encompassing place attachment model (Scannell & Gifford, 2010). The *person* dimension comprises the individual (the personal connections one has to place) and group (the symbolic meanings of a place that are shared among members) levels, the *process* dimension designates the affective, cognitive and behavioural facets comprising the psychological bond, and the *place* dimension refers to the designated physical (the range of physical settings that individuals find meaningful) and social (place as an arena for social interactions and social meanings) elements of attachment. In addition, a paper by Hernandez et al (2014), which reviews the use of place attachment across a number of studies, positions the concept as part of either a one-dimensional framework (where place attachment is related at the same level to concepts such as place identity or place dependence), a multi-dimensional framework (where place attachment is seen to be composed of a range of related constructs, such as place identity,

place dependence, nature bonding and social bonding, or as comprising particular varieties, as in the case of Lewicka, 2011b), or a superordinate conceptual framework, where place attachment is seen to combine with related constructs such as place identity (Proshansky et al, 1983), place dependence and interpersonal bonding and comprise dimensions of a wider sense of place.

Empirical accounts of place attachment tend to employ largely quantitative methods which attempt to grasp 'differentiation among people with regard to subjective importance and strength of emotional bonds with places' (Lewicka, 2011a:221), as well as gauge potential predictors of place attachment according to a range of variables including spatial scale (Hummon, 1992; Low, 1992; Inhalan & Finch, 2004), community size, length of residence, life stage (Chawla, 1992) and community diversity (Lewicka, 2011a:221). Research findings reveal community size to be a worse predictor of attachment than neighbourhood diversity, whereas length of dwelling is seen to associate positively with strength of place attachment (Lewicka, 2011a). With regards to place scale, studies indicate strong attachments to a variety of places, with the neighbourhood level evoking lower attachment than the home or city level (Hidalgo & Hernandez, 2001).

A critique of research adopting a quantitative methodological approach to the study of place attachment within environmental and social psychology, is its ill-suited nature for understanding what places mean to people. Lewicka (2011a:221) suggests that, '...to understand attachment to a specific place, one must first identify its meaning', and qualitative methods are seen as better suited to achieving such a task. A range of more recent studies have thus employed qualitative and mixed-methods approaches using in-depth interviews (Manzo, 2005), focus group discussions and free association tasks (Devine-Wright & Howes, 2010), as well as pictorial techniques such as the use of photographs, spontaneous drawings and map-based or cartographic measures of meanings ascribed to specific places (Brown, 2005; Brown & Raymond, 2007).

4.3.2 *Place Identity;*

Place identity can be seen to refer to '...the ways in which physical and symbolic attributes of certain locations contribute to an individual's sense of self

or identity' (Devine-Wright, 2009:428). Research on place identity ranges from socio-cognitive approaches, including place identity theory (Proshansky et al, 1983), identity process theory (Breakwell, 1986; Twigger-Ross & Uzzell, 1996), theories of social identity (Twigger-Ross, Bonaiuto & Breakwell, 2003) and social cognition (Stedman, 2002), as well as a shift toward more socially embedded research pathways, including a discursive analytic approach (Dixon & Durrheim, 2000) and recent focus upon Social Representations Theory and symbolic place-based meanings (Devine-Wright, 2009; Devine-Wright & Howes, 2010). It is also important to be aware of the relevance of human geography's cultural perspective on perceptions of English landscape identity (Short, 2002).

Both *Social Identity Theory* (SIT) and *Identity Process Theory* (IPT) constitute predominant identity theories within social psychology. SIT functions according to two tenets; (1) Social categorisation – which defines self-identity according to membership of a social group or category (membership to the *nation*, for example, can be seen to have place-based implications), and (2) Social comparison – which assumes that people view themselves (the 'in-group') positively with regards to others (the 'out-group') in order to gain and preserve self-esteem and a satisfactory sense of identity (Twigger-Ross et al, 2003).

IPT (Breakwell, 1986; 2010) is an identity theory based at the individual level which consists of both structural and process-oriented components. The theory comprises two dimensions, the *Identity dimension* which consists of the 'identity structure' and 'identity processes', and the *Social dimension* composed of the 'social context' and 'social processes'. Identity processes are seen to function according to four universal guidance principles which define desirable end states for the identity structure – these include continuity (continuity over time and situation between past and present self-concepts), distinctiveness (the desire to maintain personal distinctiveness or uniqueness), self-esteem (a tendency toward positive evaluation of oneself or the group with which one identifies) and self-efficacy (an individual's belief in their capabilities to meet situational demands). Use of Breakwell's IPT framework has been utilised within place-based research (Twigger-Ross & Uzzell, 1996; Speller & Twigger-Ross, 2009; Devine-Wright, 2009) and informs efforts to establish the role of place in mediating identity processes.

Both SIT and IPT have, however, been criticised within environmental psychology for downplaying the role of *place* in shaping individual and group identity. It is argued that place is relegated to comprising a mere back-drop or repository of social meanings and processes, which neglects the influence that physical settings themselves have upon self and group identity formation (Gieryn, 2000). As Gieryn (2000:466) suggests: ‘...place is not merely a setting or backdrop, but an agentic player in the game...a force with detectable and independent effects on social life’.

Place Identity Theory (PIT) arose amongst environmental psychologists (Proshansky, 1978, 1983; Twigger-Ross et al, 2003; Scannell & Gifford, 2011), partly in response to the previous critique, to designate the formation of self-identity according to ‘one’s relationship to the various physical settings that define and structure day-to-day life’ (Proshansky, 1983:58). Place identity is conceived by Proshansky as a structural component or sub-structure of one’s cognitively-based self-identity. Understood in this way, place identity comprises a set of ‘cognitive clusters’ (based on memories, ideas, feelings, attitudes, values, preferences and meanings) that form through a person’s direct conscious or unconscious experience with past, present and anticipated future *socio-physical settings*. Physical settings are seen to be inextricably linked to the social and cultural aspects of people’s day-to-day existence and in this sense challenge social psychology theories outlined above: ‘Interwoven into these clusters are the social definitions of these settings which consist of the norms, behaviours, rules and regulations that are inherent in the use of these places’ (Proshansky, 1983:62). Proshansky’s theory has however been critiqued for proposing that there is a separate part of identity concerned with place. Rather, it is posited that to varying degrees all aspects of identity have place-related implications (Twigger-Ross & Uzzell, 1996).

In additional response to the above limitation of social psychological theories in accounting for the role of place in identity formation, Twigger-Ross and Uzzell (1996) attempted to establish the role of place in informing identity processes by re-framing Breakwell’s (1986) four guidance principles in place-based terms – i.e. distinctiveness based on identification with a specific type of place (e.g. a ‘City’ person), place-referent and place-congruent continuity (place-referent continuity refers to how a place/environment acts as a referent to link past

activities and selves to the present, and place-congruent continuity refers to continuity in fit across preferred residence types), the impact of one's relationship to a place upon self-esteem, and impact of a place on levels of self-efficacy. This approach partly addresses a limitation of Proshansky's (1983) structural theory of place identity by highlighting processes guiding action in relation to identity and underlining ways in which place can be important for the self-concept.

More recently, academics that have adopted a more socio-cultural perspective to the study of place and identity (namely, discursive analytic approaches and the use of Social Representations Theory) have been critical of prior socio-cognitive epistemological and theoretical standpoints. These approaches are outlined in greater detail in the forthcoming section 4.4 of this literature review chapter.

4.3.3 *Varieties of People-Place relations;*

Moving beyond one-dimensional accounts of place attachment (i.e. associating strength or intensity of place attachment according to a number of variables), more elaborated typologies of people's relationships to place have emerged – referred to either as *varieties of people-place relations*, or *place orientations*.

Hummon's (1992) qualitative study of people's relationships to the City of Worcester in Massachusetts used a series of five in-depth interviews to reveal five types of people-place relations (or senses of place) to Worcester. As a community sociologist, Hummon adopts concepts relating to community sentiment in the study of different types of relationship to Worcester as a place, thus embedding community sentiment amongst wider relationships to Worcester. The study explored a number of sense of place dimensions, including '*Community Sentiment*' – which comprised community satisfaction, home as 'insiderness', community attachment and local identity – as well as '*Community Perspective*' – which explored imagery valence, imagery structure and community awareness.

The five types of place orientation identified consisted of two types of '*rootedness*': (1) Everyday rootedness – characteristic of people who took their residence place (and community) for granted, were little mobile, had few

Varieties of People-Place Relations	Type of place relation	Key socio-demographic characteristics
Traditional Attachment	Deep unselfconscious attachment to one's residence place	Residence length – City/town (mean years = 37) Older residents Residential mobility (mean no. of places = 2.3) Strong social/neighbourhood bonds Socially passive: low participation in communal/protest activities
Active Attachment	Deep self-conscious attachment to one's residence place with active interest in the place's goings-on	Residence length – City/town (mean years = 34) Largely middle-age groups (40-60 years) Residential mobility (mean no. of places = 2.4) Strong social/neighbourhood bonds Socially active: higher participation in communal/protest activities Interest in historical roots of town/City
Place Relativity	Ambivalent but conditionally accepting attitude towards one's residence place with relatively weak place attachment	Residence length – City/town (mean years = 32) Largely young to middle-aged Residential mobility (mean no. of places = 2.8) Very weak social/neighbourhood bonds Low social activity
Place Alienation	Dislike for and estrangement from one's residence place with very weak place attachment	Residence length – City/town (mean years = 28) Largely teenagers and young adults Residential mobility (mean no. of places = 2.6) Very weak social and neighbourhood bonds Low social activity
Placelessness	Indifference to one's residence place and no need to create emotional bonds to places	Residence length – City/town (mean years = 31) Largely teenagers and young to middle-age adults Residential mobility (mean no. of places = 2.8) Fairly weak social/neighbourhood bonds and social activity Strong 'non-territorial' identity – family, religion, profession

Table 2.1: Varieties of people-place relations and their characteristics (Lewicka, 2011b)

opportunities to compare their city with other places, and tended to have largely favourable but mixed views toward their residence place and community; and (2) Ideological rootedness – characteristic of residents who made a self-conscious decision to live in Worcester and took active interest in the place's goings-on. In addition, Hummon importantly identified three types of '*sentiment*' which encapsulate relations to Worcester which imply a lack of attachment. These included: (3) Place alienation – which designates a dislike or estrangement from the City; (4) Place Relativity – which refers to an ambivalent but conditionally accepting attitude towards the residence place; and (5) Placelessness – characteristic of indifference to the City and no particular need to form emotional bonds or identify with the place.

Hummon's study can be critiqued for its very small sample size and his self-professed lack of social representativeness of the Worcester community. Whilst the study has not, up until more recently, reverberated a great deal within the academic world, it was highly insightful in going beyond one-dimensional accounts of place attachment and for empirically showing that people relate to places in very diverse ways in relation both to a place's material and community setting. Scannell and Gifford's (2010) tripartite organising framework of place attachment is seen to echo this conceptualisation of place by proposing that place is comprised of both 'physical' and 'social' dimensions. Hummon's typology of different sense of place was recently revived in a study by Lewicka (2011b) that sought to address the lack of representativeness of Hummon's study and his suggestion for future research to investigate the relative frequency of these orientations as well as their socio-demographic characteristics.

Hummon's typology has since been replicated in Lewicka's (2011b) large-scale nationally representative questionnaire (N = 2556) survey study undertaken in Poland. The study set out to firstly capture the different types of people's relationship with their residence place (City, town, village), and secondly to establish whether these place orientations were characteristic of certain socio-demographic, economic and psychological variables. A first group of measures established; (1) a place attachment scale where factor analysis was undertaken to reveal a unidimensional scale; (2) a relations with the City/town/village scale where exploratory factor analysis of responses to 18 statements revealed a

three-factor solution comprising traditional attachment (Place Inherited), active attachment (Place Discovered) and place relativity; (3) an Identity scale where factor analysis revealed four factors (local identity, national-conservative identity, European identity, and non-territorial identity). Each of these measures were cluster analysed (k-method) in order to arrive at a five-cluster solution.

Lewicka subsequently identified two types (or clusters) of 'place attachment' - (1) Traditional attachment, referring to an unselfconscious form of attachment; and (2) Active attachment, designating a self-conscious form of attachment - and three forms of 'non-attachment' as designated by Hummon (1992) - (3) Place alienation; (4) Place Relativity; and (5) Placelessness (see table 2.1 for a tabulated summary of these people-place varieties).

A second group of measures were established utilising factor analysis in most cases for *demographic* factors (age, sex, education, residence length, mobility in terms of number of moves and number of different cities/towns resided in), *social capital* scales (trust in close and distant people, bonding and bridging social capital scale, relations with neighbours scale, social activity), *cultural capital* scales (size of home library, general cultural activity scale), *values*, *Coherence and continuity* (sense of coherence scale, interest in family roots scale, interest in place history scale), and *life satisfaction*. The study subsequently sought to establish relationships between the five varieties of people-place relations and this range of socio-demographic factors.

Interestingly, traditionally attached people tended to be older, have lower levels of educational attainment, longer residence length and lower scores on openness to change. Actively attached individuals, however, generally belonged to younger age groups (particularly the 40-60 age category), had higher levels of educational attainment, were more socially active (with regards to both protest actions and communal activity), and had greater place/life satisfaction and openness to change. People identifying with the place alienation type tended to also be younger, with lower residence length, low neighbourhood relations and social activity scores (particularly with regard to protest actions), low place/life satisfaction, and greater scores for self-enhancement and openness to change. Place relative individuals tended to be young, with relatively low residence length (but higher than place alienated), higher

residential mobility, with very low scores on social bonding. Placeless individuals were also young, with relatively low residence length (slightly lower than for place relative respondents), slightly higher levels of residential mobility, and relatively neutral scores for social bonding.

This study usefully confirmed Hummon's (1992) existing qualitatively-derived typology of people-place relations and provided an in-depth insight into the socio-demographic characterisations of each variety. The study was slightly limited in that clear statements attempting to capture the place alienated variety were not included in the factor analysis of the City, Town, Village scale. It was therefore not altogether clear how the place alienation cluster was arrived at following the k-means cluster analysis. This limitation was attended to in empirical study chapter three of this thesis by including four clear statements that attempted to capture the place alienated variety of people-place relations.

Devine-Wright's (2013a) study of people's responses to a high-voltage power line proposal in the South-West of England also employed a questionnaire survey amongst residents of a town called Nailsea in South-West England (N = 503) in order to capture the two forms of place attachment identified in Lewicka's typology. Descriptive data showed that respondents reported moderately high levels of the traditional form of attachment (mean value = 3.56, SD = .66), and lower levels of the active form of attachment (mean value = 2.50, SD = .87), thus further confirming the presence of these two varieties of attachment to the residence place.

Whilst the above studies are valuable in that they highlight the multiple ways in which people relate to their residence place and further reveal that people develop forms of non-attachment to the places in which they live, existing research on varieties of people-place relations has a number of limitations. Firstly, there are a lack of in-depth descriptive accounts of people's place orientations that provide a deeper understanding of the ways in which people relate to places (with the exception of Hummon's qualitative study). Secondly, due to a relative lack of empirical studies, there may be previously undiscovered forms of place orientation that research is yet to uncover and which may challenge the existing five-partite typology. Thirdly, the existing studies outlined above adopt a static snapshot view of people's place orientations to one place

in time, thus overlooking the dynamic and potentially changing nature of people's place relationships over time and across residence places.

4.4 Key limitations of research into people-place relations within Environmental and Social Psychology;

This section will now outline some of the main limitations that are seen to arise from research on people-place relations, across the disciplines of environmental and social psychology.

(1) There is a tendency amongst social and environmental psychological research to adopt a socio-cognitive individualist perspective to the study of people-place relations, where individual attitudes and behaviour become the sole focus of analysis, and where social constructivist oriented theoretical approaches and processes in the formation of social objects are overlooked. This research and literature is therefore deficient in terms of the extent to which it is able to encompass the socio-cultural level of analysis (Devine-Wright, 2009; Shove, 2010; Anderson, 2013).

A study by Stedman (2002), for example, examined the role of place meanings in shaping behavioural responses to a proposed housing development in a lakeshore area of Wisconsin. Findings from a questionnaire survey showed that oppositional 'place protective action' was based on the elaboration of particular place-related meanings, with those interpreting the place as 'up north' more likely to oppose the proposal than those interpreting it as a 'community of neighbours'. A key limitation of the study was its inability to account for the *source* of place-related meanings, which are presented in his paper as cognitive constructs situated and observed in the minds of individuals (Devine-Wright, 2009). Papers by Manzo and Perkins (2006) and Devine-Wright (2009) usefully distinguish between two analytic approaches – the 'Intra-personal', socio-cognitive level of cognitive constructs (e.g. place identity as formulated by Proshansky), and the 'societal' or socio-cultural level of wider meanings relating to place and ways of attaching to place generally.

Research on place attachment and varieties of people-place relations has tended to adopt an intra-personal, socio-cognitive focus to the study of people-place relations, with a tendency to employ questionnaire survey methods to

mine into individuals' isolated responses, and neglecting the social context within which individuals and their place relations are situated. Empirical research into place attachment, for example, has tended to employ quantitative methods (although not exclusively) which attempt to gauge intensity and potential predictors of place attachment at the individual level (Low, 1992; Inhanan & Finch, 2004; Lewicka, 2011a). In addition, research on varieties of people-place relations can be seen to adopt a socio-cognitive approach, seeking to understand people's personal relations to the residence place (Lewicka, 2011a; Devine-Wright, 2013a).

As Devine-Wright proposes, moving toward a research approach that attempts to investigate the source of co-constructed symbolic place meanings (and people's place relations more generally) '...requires a shift in analytic gaze away from the individual as the sole point of reference towards a multi-level approach, premised on the assumption that knowledge is collectively constructed through interactions among individuals...' (2009:429). More recently, academics have moved towards a more socio-cultural perspective to the study of people-place relations, namely, through the use of a discursive analytic approach and the adoption of Social Representations Theory. Both approaches have been critical of prior socio-cognitive epistemological and theoretical standpoints that tend to position place related phenomena at the individual socio-cognitive level of analysis.

A discursive approach to place identity (Dixon & Durrheim, 2000), for example, has emerged as a critique of former socio-cognitive and apolitical accounts of place identity present within environmental and social psychology (Proshansky et al, 1983; Korpela, 1989; Rowles, 1983). Dixon and Durrheim (2000:32) dispute the notion that place identities be viewed as individual level mental cognitions, or as cognitive structures 'discovered in the heads of individuals'. Their discursive approach re-casts place identity 'as something that people create together through talk: a social construction that allows them to make sense of their connectivity to place...' and which 'acknowledges the relevance of places to (people's) collective senses of self'. Implicit in this discursive formulation is the idea that rhetorical constructions of place are 'oriented to the performance of a range of social actions', which are seen to legitimise and sustain particular relations of domination.

This discursive approach has also recently been applied to investigating the role that rhetoric plays in the formation of performance-oriented place attachments (Di Masso et al., 2014:75). Di Masso and colleagues argue that rather than seeing place attachment as 'a deep-seated, internalized, emotional affinity that individuals experience towards particular places, discursive research treats it as a phenomenon that is linguistically *constructed* as individuals, together, formulate the everyday meanings of person-in-place relationships'. Adopting a social constructivist approach to the study of place attachment implies greater recognition of qualitative methods of data collection, that stress the 'interactional processes' through which place relations are co-constructed, and the use of discourse analysis as a way of analysing linguistic data to arrive at broad patterns of argumentation embedded in divergent socio-political contexts.

Social Representations Theory also developed from a critique of the individualistic socio-cognitive trend in social psychology, and addresses aspects of content and process in the collective social construction (or 'representation') of novel or unfamiliar social objects into everyday 'common-sense' forms of knowledge (Moscovici, 1981; Wagner et al., 1999). This theoretical framework has been fruitfully applied to the study of place-based meanings in contexts of proposed and actual place change (Devine-Wright & Howes, 2010; Anderson, 2013). Social Representations Theory provides the theoretical framework to this PhD thesis, and section six of this chapter will outline the key components of the theory, the ways in which it has been employed in the study of place-related meanings through the use of mixed-methods approaches, and its application to the study of varieties of people-place relations and place-based meanings in the forthcoming empirical study chapters of this PhD thesis. Through the use of a social representations theory lens, the research on people-place relations in this thesis acknowledges that individuals' internalised place relations (i.e. varieties of people-place relations - socio-psychological phenomena) are situated and embedded within wider socio-cultural level meanings relating to how people collectively talk about place(s) and their relationships to place(s) generally.

(2) A second key limitation relates to the predominant focus on 'structural' approaches to the study of people-place relations. To date, research on place attachment has tended to focus on unearthing qualities of the product, rather than the process(es) that guide attachment or detachment to place(s). Studies

have subsequently adopted 'structural' approaches to the theoretical development of the concept, using both qualitative and quantitative-based cross-sectional research designs to capture intensity, predictors and types of place attachment at one particular point in time (Lewicka, 2011a; Devine-Wright, 2014). This same point can be extended to research on place identity, where the concept has been elaborated according to cross-sectional research designs and has largely arisen as part of the sub-structure of one's self-identity (Proshansky, 1978, 1983).

Prominent examples of this structural approach include: (1) Scannell and Gifford's (2010) multi-dimensional conceptual model of place attachment comprising *person*, *process* and *place* dimensions; (2) a study by Hernandez et al (2014) that positions place attachment as part of either a one-dimensional, multi-dimensional or superordinate conceptual framework, combining related constructs such as place identity (Proshansky et al, 1983), place dependence and interpersonal bonding; (3) Hummon (1992) and Lewicka's (2011b) typologies of people-place relations, including two forms of attachment – traditional and active varieties – and three types of non-attachment to place – place relative, place alienated and placelessness.

Whilst highly insightful, such an approach says little about the *dynamic* nature of people's place relations and the factors involved in processes of attachment to or detachment from place(s) over time (Devine-Wright, 2014). These structural approaches are limited in that they portray a static and temporally fixed view of people-place relations which overlooks the temporal, dynamic and process-oriented nature of people's place relations over the life course (people's '*life-place trajectories*') and across residence places (Lewicka, 2011a; Devine-Wright, 2014).

A number of studies have, however, attempted to examine the effects of changes (and differences) to people and changes to places upon place attachment dynamics (Devine-Wright, 2014).

With regards changes to people, Hay (1998) utilised a mixed methods approach (ethnography and 270 in-depth interviews were employed to gauge the social world of participants and explore the development of different stages of sense of place; a social survey method was employed in order to establish trends

across the sample) to explore the role of the life course in shaping the development of a sense of place amongst temporary and permanent residents of the Paheka area of New Zealand and proposed three stages of attachment to place – embryonic (characterised by tourists and transients with superficial place bonds, or by child residents who have developed a partial connection), commitment (characterised by Paheka residents raised and committed to staying in the area), and culmination (those long-term residents of the area who have ancestral ties to the place and have developed deep bonds to the Paheka area). This study is highly insightful in highlighting the role of different types of resident and different life stages in the development of a sense of place to the Paheka area. However, the study tends to emphasise sense of place amongst long-term residents due to its focus on one residence place. Little is therefore known about processes of attachment or detachment from place amongst people that have resided in a greater number and divergent types of residence place.

Gustafson (2001) examined the role that residential mobility plays in informing intensity of place attachment, with an interest in whether greater mobility results in people forming weaker attachments to residence places. The study employed 14 semi-structured interviews with residents of Western Sweden. Interview participants aligned with the place as 'routes' theme tended to express greater residential mobility which was associated with personal development and freedom, and were less inclined to form bonds with places. The place as 'roots' theme, however, was characterised by people expressing long-term continuity and deep bonding to a 'home' place. Gustafson's paper shows that processes of attachment and detachment to place are seen to be shaped by levels of residential mobility as well as wider socio-cultural notions of what are considered normal and appropriate ways of relating to place (i.e. being 'rooted' versus being mobile).

Researchers (Feldman, 1990; Fried, 2000; Twigger-Ross & Uzzell, 1996) further propose that relocating individuals maintain a sense of continuity across their lives by opting to move between different generalised types of settlement. Feldman (1990) found, utilising a large-scale questionnaire survey of a stratified random sample of employees of downtown Denver, United States, that people's psychological bonds with places can transcend a relationship to one specific

locale, being based instead upon generalizable characteristics of particular types of settlement (e.g. the City or the country) which may provide dispositions for future engagement with particular settlement types across the life course. Feldman's concept of settlement identity is echoed in a study by Twigger-Ross and Uzzell (1996:208) who develop the notion of 'place-congruent' continuity which '...refers to the maintenance of continuity via characteristics of places which are generic and transferable from one place to another'. The study employed twenty semi-structured interviews amongst a sample of residents from Rotherhithe in London. Results of the study suggested that some participants were attached to their residence place due to its congruence with generalizable types and features of prior residence places. However, both studies adopt an individualistic socio-cognitive perspective to their studies of place identity processes thus overlooking the role of socio-cultural meanings of generalised place types in shaping people's processes of attachment/detachment to place(s).

With regards changes to places, studies have examined the impacts of residential and workplace relocation (Chow & Healey, 2008; Inhalan & Finch, 2004; Fullilove, 2014) upon the attachment process, with experiences of dislocation, 'root shock' and disruption of prior place bonds a prominent occurrence. Greene et al (2011) propose a four stage model of residential resettlement, where initial threat of displacement and severing of social bonds is followed by mourning for the loss of the old place, with eventual cultivation of new place and social bonds. The roles of nostalgia and solastalgia ('Pain or distress caused by the loss of, or inability to derive solace connected to the negatively perceived state of one's home environment', Albrecht et al., 2007) in hindering or facilitating attachment to place(s) has also received some attention (Fullilove, 2014; Lewicka, 2014; Savage et al, 2005). Furthermore, Brown and Perkins (1992) have proposed a three stage model of the temporal unfolding of place disruption within contexts of place change such as burglary and environmental disasters. Notions of place disruption and place change have been taken forward in studies investigating the disruptive impacts of energy infrastructure developments on intensity and varieties of place attachment and threat to symbolic place-related meanings (Vorkinn & Riese, 2001; Devine-Wright & Howes, 2010; Devine-Wright, 2013a).

In the context of recent academic literature around nostalgia and place, studies have tended to focus on exploring nostalgia for prior residence places amongst relocating individuals. Kim (2013) explored nostalgia amongst North Korean refugees who fled to South Korea during the North Korean famine of the mid-1990s. Despite disillusionment and anger at the North Korean regime, research subjects expressed nostalgia towards home towns and family members they had left behind. Lewicka (2014) proposes that nostalgic autobiographical memories may help to overcome spatial discontinuities and facilitate bonding to a new residence place. There remains however, a lack of research that investigates the role of nostalgia, amongst relocating individuals, in hindering or facilitating the place attachment process over the life course of individuals.

Whilst the aforementioned studies foreground change and dynamics of attachment and detachment to place(s) in view of changes to people and changes to places, there is a lack of research that investigates the dynamic nature of both intensity of place attachment and varieties of people-place relations across the life course (Devine-Wright, 2014). In particular, there is a lack of research that investigates people's '*life-place trajectories*' – that is to say, the dynamic nature of people's varieties of people-place relations, and place-related symbolic meanings across the life course of individuals.

An investigation into individuals' changing (or static) varieties of people-place relations as they navigate through life and potentially relocate to other residence places forms a central aim of the first empirical study chapter which employs narrative interviews as a means of tracing people's varieties of people-place relations across the life course of individuals. In so doing, particular '*life-place trajectories*' are elaborated and these are seen to comprise patterns of individuals' varieties of people-place relations across time and located in a socio-cultural context (Clandinin & Connelly, 2000). In this sense, people's '*life-place trajectories*' are not to be seen solely as internalised individual emotional affiliations with residence places, but as positioned within and shaped by wider socio-cultural level meanings.

(3) A third key limitation relates specifically to the study of varieties of people-place relations. With the exception of Hummon's (1992) study, there exists a scarcity of in-depth descriptive and qualitative accounts of people's place

orientations, with research into the existing five-partite typology very much at its infancy. Existing studies have also tended to approach the formulation of varieties of people-place relations through an individualist socio-cognitive lens. Since this PhD thesis adopts a theoretical framework that recognises the socio-cultural level of knowledge formation (Social Representations Theory), it will be important to embed people's varieties of people-place relations within a wider socio-cultural context.

In addition, due to the low number of existing empirical studies in this area, there may be previously undiscovered forms of place orientation that are yet to emerge and that may challenge the existing five-partite typology. Little is known, for example, as to whether people identify only with distinct varieties of place relation or whether they might identify across different varieties, creating composite place orientations.

- In light of the limitations outlined above, a set of research aims have been developed that are seen to guide the empirical study chapters that follow (chapters four to six):

The PhD research seeks to adopt a social representations theory framework that conceptualises people's personal emotional relationships with place (i.e. varieties of people-place relations), as situated and embedded within wider socio-cultural representations of place and ways of relating to place generally.

This PhD research aims to investigate the processes underlying the dynamic (or non-dynamic) nature of people's varieties of people-place relations over the life course of individuals (their 'life-place trajectories'), and the ways these 'life-place trajectories' inform identification with specific varieties of people-place relations and the attribution of particular place-related symbolic meanings to the current residence place.

This research seeks to confirm the presence of Hummon (1992) and Lewicka's (2011) five-partite typology of people-place relations and to establish novel place orientations.

5. Place disruption and public acceptance of energy infrastructure proposals:

Place disruption refers to the disruptive impact of ecological or human-induced change upon both emotional attachments to places and threat to place-based identities. This can lead, in some cases, to negative emotional responses such as anxiety and loss, feelings of displacement (Brown & Perkins, 1992; Inhalan & Finch, 2004), and the adoption of certain coping strategies, which can include establishing new emotional attachments to places (Brown & Perkins, 1992), re-instituting the operation of guidance processes (Speller, 2000; Speller & Twigger-Ross, 2009), and actively resisting place change (Inhalan & Finch, 2004; Devine-Wright, 2009). The causes of place change can be both ecological, as in the case of floods or landslides (Brown & Perkins, 1992), and human-induced, as with instances of home burglary (Brown, Perkins & Brown, 2003), inter-group conflict (Dixon & Durrheim, 2000; Possick, 2004) and energy technology siting (Devine-Wright, 2009, Devine-Wright & Howes, 2010).

5.1 Disruption of place attachment and threat to place-based identities;

According to Brown and Perkins (1992:284), 'Disruptions of place attachment are noticeable transformations in place attachment due to noticeable changes in people, processes or places'. Disruption of place attachment refers to the disturbance and potential loss of pre-existing place bonds, arising from a form of actual or proposed place change. Brown and Perkins (1992) usefully propose a three-stage model of place disruption which entails: (1) the '*pre-disruption stage*' – characteristic of individuals or groups with pre-existing emotional connections to the residence place; (2) the '*disruption stage*' – which refers to the disruptive impact of place change upon existing attachments; and (3) the '*post-disruption stage*' – characterised by attempts to cope with loss of fragile attachments by attempting to reconstruct prior place bonds or create new ones (Devine-Wright, 2009).

Brown and Perkins (1992) outline the stages of voluntary migration of high school senior students in the US who leave their family homes for college, showing how the students anticipate the move by reducing family obligations, experience a period of stress and homesickness shortly after the move, and eventually become actively identified with the new place. Involuntary migration

on the other hand, can be characterised by more sudden place change for which individuals and communities have little time to prepare or anticipate. Such was the case with the Buffalo Creek flood of 1972, where a collapsed dam flooded and destroyed sixteen small mining communities, resulting in the destruction of one thousand homes and displacement of four thousand families. Following the flood, many prior inhabitants were reported to have suffered from post-traumatic stress disorder, experiencing loss of appetite, sleeplessness and anxiety.

Furthermore, Inhalan and Finch (2004) explore the process of place disruption within the context of workplace relocation. It is proposed that a change in one's workplace could have a disruptive impact upon the emotional attachments to one's former workplace. The central coping strategy alluded to in this paper is that of *resistance to change*, where some workers may resist workplace relocation due to the move being experienced as harmful and disruptive, resulting in increased work absenteeism, reduction in productivity, low morale and attempts to sabotage the move. Both of these models usefully highlight the temporal unfolding of disruption of place attachment. However, they tend to overlook the ways in which forms of place change are interpreted and negotiated within a social context, emerging from interpersonal communication and exposure to media sources. As Devine-Wright (2009:429) suggests, it also tends to 'reify disruption, overlooking that change may be psychologically disruptive before any physical change is manifest'.

In the context of recent academic literature around nostalgia and place, studies have tended to focus on exploring the nostalgia sentiment regarding the way places used to be prior to socio-physical place change and resulting disruptions of prior place bonds. Savage et al (2005) discuss how socio-physical changes to an English town over time engendered feelings of nostalgia amongst long-term residents for the way the town used to be and resulted in alienation and estrangement for the way the place is today. Yeoh and Kong (1996) propose that rapid societal change in Singapore (the product of 'modernity' and 'Westernisation') has resulted in a nostalgia-based counter-reaction, where government officials are pushing for a return to a lost era of Singaporeans' 'Asian roots' and traditional values. Lagerkvist (2013:144) discusses Shanghai's 'nostalgia industry', where bus tours take tourists and residents back in time to a

'nationalistic' 'Golden Age of the Inter-War period'. Finally, Collins and Kearns' (2010) study of coastal residential development in New Zealand sought to understand and explain local opposition to a proposed major residential development in a Greenfield coastal site (the Hawke's Bay region). The study drew on three principal sources of data – official reports and proposals, public submissions to Council, and 22 semi-structured interviews with members of the public with an interest in the proposal, representatives of the regional council, and the development company. The study found that some interview participants reported anticipated nostalgia for the present place, were residential development to go ahead.

Place disruption can also denote a threat to people's place-based identities. This has been approached conceptually and empirically by adopting an Identity Process Theory (IPT) framework, where place change is seen to contravene four main guidance principles (Speller & Twigger-Ross, 2009; Timotijevic & Breakwell, 2000), through employing a Social Identity Theory framework (Bonaiuto et al, 1996), and through adopting a Place Identity Theory (PIT) approach, where place change is seen to threaten place-based cognitions (Proshansky, 1983; Stedman, 2002).

Through the adoption of IPT, Speller (2009) examined the impacts of the enforced relocation of an ex-coal mining community (Old Arkwright) to a nearby newly built neighbourhood (New Arkwright) utilising a longitudinal research design (a six year period) and employing 104 in-depth interviews amongst 22 interviewees. Changes in the physical layout of the new village were seen to contravene all of the guidance principles (distinctiveness, continuity, self-esteem and self-efficacy) resulting in a decline in sense of community, the increased salience of individual rather than communal distinctiveness, and a diminished sense of self-efficacy amongst older residents. Those individuals able to appropriate their new home and garden were able to cope with new demands and reported increased self-efficacy, thus attempting to re-institute the operation of identity processes (thus relating to Brown and Perkin's 'post-disruption' stage characterised by attempts to reconstruct prior place bonds).

Timotijevic and Breakwell (2000) explored the impacts of threat upon identity principles within the context of migration from the former-Yugoslavia to Britain,

following outbreak of civil war. The study employed 24 in-depth interviews with former-Yugoslavian migrants designed to inquire into participants life-narratives. Feelings of uncertainty relating to the past and the future and a perceived lack of control over participants' lives, were seen to contravene both self-efficacy and self-esteem. Being classed as immigrants in Britain led to derogating representations of research participants, thus eroding and casting ethnic and nationalistic distinctiveness in a negative light.

From an SIT perspective, Bonaiuto et al (1996) explored the role of local and national identities in regulating perceptions of an identity-threatening environmental change (the pollution of British beaches) as externally imposed and based upon EU regulations concerning beach cleanliness. The study employed questionnaire surveys amongst a sample of 347 English students from secondary schools in six seaside resorts (from six Southern English counties). The study found that research participants who reported strong local and national identities tended to perceive the beaches of their own towns and national beaches as having lower levels of pollution, regardless of EU categorisation or physical evidence of pollution. Findings supported the view that in-group preference positively influenced estimates of beach pollution. Underestimation of the 'negative' physical assessments of beach pollution by a powerful out-group (the EU) was seen to result from a perceived threat to place identity, leading to the adoption of denial as a main coping strategy.

From a PIT perspective, threat to place identity may arise when rapid or gradual place changes challenge people's existing place-related cognitions (Proshansky, 1983). Stedman's (2002) study of planned new housing in a lakeshore area of Wisconsin utilised a questionnaire survey amongst a stratified random sample of Vilas County property owners (72.1% response rate) and set out to establish associations between place-related symbolic meanings and behavioural willingness to engage in '*place-protective action*' (an active resistance to a form of place change) against rapid residential development of lake shorelines. The study suggested that residents holding the 'Up-North' (the 'Up-North' wilderness escape from civilisation) place-related landscape meaning and stronger place attachment were more likely to engage in oppositional behaviour towards the housing proposals. In contrast, those emphasising the community attributes of their residence place, whilst still

reporting attachment to the place, appeared less likely to view the lakeshore development as threatening and attenuated interest in engaging in lake protective behaviour. As previously mentioned, this study is weakened by the adoption of a socio-cognitive approach, which is unable to account for the actual source of place-related symbolic meanings. This weakness can also be attributed to the aforementioned studies that adopt identity process theory and social identity theory perspectives to research on threat to place-based identities.

The above place disruption literature is limited in that it tends to imply that place disruption is the result of an actual physical change to a place, thus overlooking the fact that 'change may be disruptive before any physical change is manifest' (Devine-Wright, 2009:429). This may be the case with energy infrastructure proposals, where local communities may become aware, interpret and evaluate a planned development prior to actual construction (Devine-Wright, 2009; 2010). Second, the literature tends to overemphasise the disruptive and negative consequences of place change, when in fact studies have shown that members of local communities facing energy infrastructure plans view the proposals in some cases as place enhancing and a potential boost to employment and local prosperity (Devine-Wright, 2010; 2011a).

5.2 Place disruption and place change - research into public responses to energy infrastructure proposals:

An emerging body of literature has explored the role of energy infrastructure development proposals in leading to place disruption amongst members of local communities, resulting in potential negative attitudes and place-protective action towards project proposals (Vorkinn & Riese, 2001; Devine-Wright, 2009; Devine-Wright & Howes, 2010; Devine-Wright, 2011a; Devine-Wright, 2013a). This literature attends to aforementioned limitations of place disruption research by recognising that such projects can be disruptive prior to actual construction (i.e. at the proposal stage), and that place change can be seen to enhance as well as threaten place-based identities (and concurrently that people both support and oppose these forms of place change). The following sections will critically review empirical research investigating: (1) associations between place attachment intensity and acceptance of energy infrastructure proposals; (2)

predictive significance of varieties of place attachment and public acceptance of transmission grid infrastructure; and (3) congruence between place and project-related symbolic meanings - before highlighting key limitations of research in this area and a further set of research aims of this PhD thesis.

5.2.1 Strength of place attachment and public acceptance;

We shall look first at studies that have attempted to establish associations between strength of place attachment and public acceptance towards a range of energy infrastructure proposals. An assumption underlying these studies is that higher levels of place attachment would be more likely to associate with project opposition due to potential experiences of disruption to existing place bonds and subsequent negative feelings towards energy infrastructure developments.

Vorkinn and Riese's (2001) study set out to investigate the role of intensity of place attachment (at the level of the municipality and locally affected areas) in predicting attitudes to a hydro-power plant proposal in Norway utilising a questionnaire survey with a representative sample of residents of the Skjak municipality (n=305). Attitudes toward the proposal were mostly negative - 33.5% of respondents reported either 'very positive' or 'positive' attitudes, 14% held a neutral position, and 46% reported either 'negative' or 'very negative' attitudes - and place attachment was high for both the municipality level and for affected areas. Findings indicated that stronger place attachment to locally affected areas associated with greater negative attitudes, whereas stronger attachment to the municipality level associated with more positive attitudes to the hydro-power plant proposal. This suggests that associations between place attachment intensity and project stance were not straightforward and that attachment to different place scales related differently to attitudes.

Devine-Wright and Howes (2010) undertook a study of public acceptance towards an off-shore wind farm proposal off the coast of North Wales. Intensity of place attachment was captured using a questionnaire survey (n=457) in two coastal towns - Llandudno and Colwyn Bay. High levels of place attachment were reported for Llandudno respondents (m=4.40, SD=0.74) and this was seen to associate negatively with project acceptance. However, in Colwyn Bay, respondents reported lower levels of place attachment (m=3.63, SD=1.09) and

no association was found with project acceptance. Qualitative findings from the study, where four focus group interviews were also conducted, are reported below.

Devine-Wright's (2011a) study of public acceptance towards an existing tidal energy converter in Northern Ireland utilised a questionnaire survey amongst two coastal towns (n=281), and showed that place attachment was high in both study locations (Portaferry: $m=4.29$, $SD=0.89$ / Strangford: $m=4.34$, $SD=0.96$). Interestingly, stronger place attachment associated with greater project acceptance and more positive attitudes towards the development in both locations. This may be tentatively explained by the fact that data was collected following installation of the technology, when project outcomes are more certain and known (Van de Horst, 2007). This study is novel in finding a positive relationship between place attachment and acceptance of the development. Prior empirical studies had consistently found negative associations between place attachment and project acceptance, whereas this study showed that development projects do not inevitably lead to disruption of place attachments. Devine-Wright (2011a:341) states that, '...change to place is not inevitably disruptive, but may enhance place attachments in situations of good 'fit' between symbolic meanings associated with both place and project'. This suggests that experiences of place change may not necessarily lead to place disruption and project opposition amongst people with strong place attachments, but may instead enhance place attachments when place change is seen to fit symbolically with the place.

Devine-Wright's (2013a) study of public acceptance to a high-voltage power line proposal in the South-West of England utilised a questionnaire survey (n=503) based on a representative sample of residents of a town called Nailsea and found that strength of place attachment did not significantly predict stance towards the proposed power line.

Whilst some of the aforementioned studies show that stronger place attachment associates with project opposition (Vorkinn & Riese, 2001; Devine-Wright & Howes, 2010), thus lending some support to the assumption that those with stronger place attachment would be more likely to undergo experiences of place disruption (disruption to place bonds) and thus oppose development projects,

place change is not inevitably disruptive of place attachments but may be enhanced in contexts where there is congruence between place and project-based symbolic meanings (Devine-Wright, 2011a).

5.2.2 Varieties of place attachment and public acceptance;

Devine-Wright's (2013a) study is novel in its attempt to establish the predictive significance of the two forms of place attachment (traditional and active varieties) in explaining public acceptance of a high-voltage power-line proposal (the Hinckley Point C grid connection) in South-West England. The study utilised a questionnaire survey to capture the two forms of place attachment amongst a representative sample (n=503) of residents of the town of Nailsea, in Somerset, which is directly affected by the project proposal. Findings from hierarchical logistic regression analysis revealed that the active form of attachment emerged as a significant predictor of technology acceptance. Respondents reporting higher levels of active attachment were more likely to oppose the power line proposal. Devine-Wright (2013:13) provides a partial explanation of this finding, suggesting that actively attached residents may seek to '(re)discover the town and seek new places within it' – they may therefore take active interest in local media reports about local changes, become more quickly aware of these changes and potentially be more vigilant with regards to the goings-on of Nailsea. This somewhat corroborates with Lewicka's (2011b) findings that suggest actively attached individuals tend to report higher levels of social and cultural capital, which may imply greater and more rapid awareness of place change through more explicit social and neighbourhood relations.

Limitations of Devine-Wright's paper do however leave a number of interesting knowledge gaps open for future research. Firstly, the study focuses only upon the two forms of place attachment, thus neglecting the three forms of non-attachment to place identified by both Hummon (1992) and Lewicka (2011b) and their predictive significance in explaining stance towards the power line proposal. The study also overlooks associations between the two forms of place attachment and emotional and behavioural responses to the power line proposal. It is tentatively proposed that those identifying with the place alienated form of non-attachment may care less about a power line proposal, express fewer negative emotions and attitudes, and be less likely to partake in place-

protective behaviours, due to weak bonds to the residence place and less concern over what changes occur in or around this place – this may relate to individuals life-place trajectories over the life course and this will be explored further in chapter four. Conversely, those identifying with the active form of attachment may become aware of such a proposal earlier on, express more negative emotions and attitudes, and be more likely to engage in place-protective action. More formalised research aims and questions will be outlined in this regard in the third questionnaire survey study of this PhD thesis.

More generally, there is a dearth of research investigating the role of varieties of people-place relations (particularly varieties of non-attachment) in understanding experiences of and responses to place change – specifically within the context of a high-voltage over-head power line proposal.

5.2.3 *Place and project-related symbolic meanings and public acceptance;*

Devine-Wright (2009, 2010) proposes a novel framework for understanding individual and collective responses to place change over time (see figure 2.5). The multi-stage framework encompasses the five stages of: (1) Identification or becoming aware of place change - through interpersonal communication, national and local media sources and developer-led engagement processes; (2) Interpretation – where people adopt project-based meanings which are communicated inter-subjectively and by local media; (3) Evaluation – where place change is assessed positively or negatively; (4) Coping; and (5) Acting – which designates behavioural responses to resisting or supporting place change.

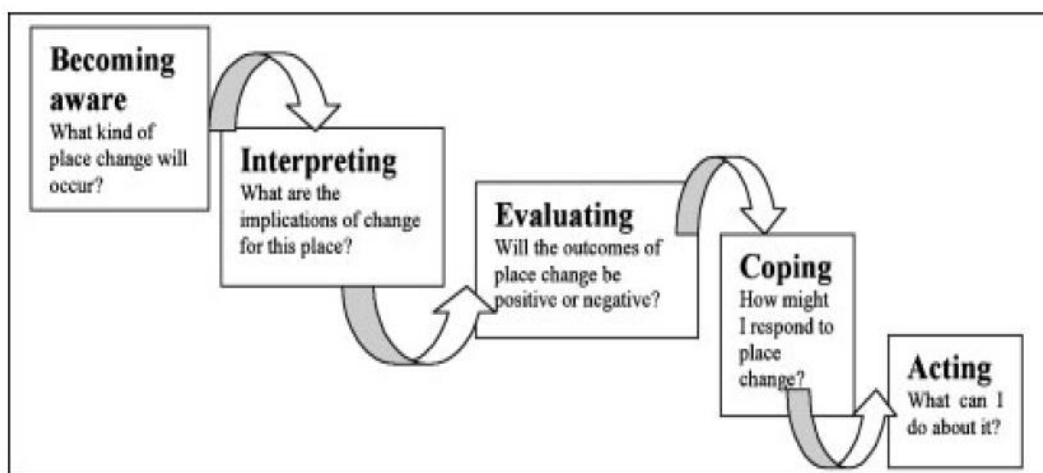


Figure 2.5: Stages of psychological response to place change over time (Devine-Wright, 2009:433)

The stage of interpretation deals specifically with the adoption of project-based meanings and how these are seen to 'fit' or not with people's place-related symbolic meanings. This move towards a more socially embedded view of place identities is based - as seen in the two forthcoming empirical studies by Devine-Wright & Howes (2010) and Anderson (2013) - upon a social representations theory framework that utilised mixed-methods approaches to investigate co-constructed symbolic meanings relating both to particular places and to specific forms of proposed and actual place change.

Devine-Wright and Howe's (2010) study of public acceptance to an off-shore wind farm proposal in two coastal towns in North Wales utilised a set of four focus group interviews and a free-association task within a questionnaire survey (n=457, and showed that in the coastal town of Llandudno, predominant place-related meanings included, 'aesthetic beauty' (21%), 'pleasant living' (13%), 'holiday resort' (12%) and 'coastal features' (11%). These were seen to contrast with interpretations of the proposed wind farm as 'monstrously damaging', as industrialising the area, and fencing in the bay, indicating that the wind farm was interpreted as a threat to a place constructed as a beautiful, 'natural', restorative tourist resort. Llandudno respondents reported predominantly negative emotions and attitudes (m=2.79) toward the proposed wind farm. Conversely, place-related meanings for Colwynn Bay residents included 'rundown' (22%), 'coastal features' (15%), 'home' (9%) and 'undesirables' (8%). The wind farm was interpreted less negatively in terms of 'industry' and perceived as possibly a good thing, boosting employment and local prosperity, within the context of a place evoked as in decline. Analysis of a questionnaire survey established the extent to which interpretations of the proposed off-shore wind farm were widely shared amongst local residents and differed between each place. The study showed that when symbolic meanings of the project were seen to be incongruent with those of the place (as in the case of Llandudno), the proposed off-shore windfarm was interpreted negatively. In Colwynn Bay, the project was interpreted as potentially enhancing a place seen as 'rundown' and thus improved congruence between place and project symbolic meanings was seen to relate with less negative views towards the project.

Anderson (2013) showed, using a mixed-methods approach - a series of 31 semi-structured interviews combined with a questionnaire survey study (n=903) comprising residents living in a region of North-West Tasmania, Australia - that research participants represented the rural landscape and plantation forestry (a form of place/landscape change in the area) in different ways and that these differences in 'fit' (or lack of fit) associated with particular responses to plantation forestry. Results from analysis of interview data found that plantation forestry was generally perceived to be a negative landscape element that didn't fit with idealised social representations of the rural landscape. Results from the questionnaire survey study found that those attributing a range of lifestyle and amenity related meanings to the rural landscape were more likely to oppose plantation forestry on the grounds that it posed an unacceptable risk or threat to these activities, whereas those attributing meanings of production were likely to represent plantation forestry as both risk and benefit and hold slightly more favourable views. This study showed that a range of divergent representations of rural Tasmania were seen to be more or less congruent with objectified representations of an existing form of place change (plantation forestry) which were seen to relate with different evaluations of said place change. Interestingly, the study concludes by suggesting that lack of fit between representations of plantation forestry and rural Tasmania did not necessarily lead to negative evaluations of this newer land use, however, this finding was left relatively unaccounted for.

Whilst not specifically employing a social representations theory framework, McLachlan employed in-depth interviews (the number of interviews is unspecified in the paper) (McLachlan, 2009) in order to understand logics of opposition and support - amongst a non-random sample of participants comprising organisational stakeholders, members of the public and local residents - of a wave energy project in Cornwall, UK. The study revealed various 'symbolic logics' of opposition and support stemming from varying levels of congruency between symbolic interpretations of place and the Wave hub in Cornwall. Findings showed that when the technology was seen to fit with place-based symbolic meanings - for instance, when symbolic interpretations of the technology ("Technology at one with Mother Nature") were seen to fit with place-based meanings ("Place as nature") - support was likely to ensue.

Conversely, a 'symbolic logic of opposition' arose when the wave hub was seen as an 'experimental' form of technology in a place seen as 'natural'. This study lends support to above-mentioned research (Devine-Wright & Howes, 2010) that suggests when place change (energy infrastructure developments) is seen to industrialise places represented as natural and restorative, then incongruence between place and project-related symbolic meanings can result in negative views and objection to forms of place change. Whilst McLachlan's study usefully highlights the ways in which congruence and incongruence between place and project-related symbolic meanings relates to positions of support and opposition, the study did not account for the process(es) by which symbolic meanings of the place and project arose.

Furthermore, a study by Venables et al (2012) utilised a mixed methods approach (31 episodic narrative interviews and a questionnaire survey [n=1326]) amongst communities near two nuclear power plants, and showed that attitudes to proposed new nuclear power facilities in the UK were shown to be dependent on the extent to which existing power plants at the proposal sites were perceived to contribute toward the sense of place of nearby local communities. In particular, participants who saw an existing power station as a 'familiar' and 'non-threatening' aspect of the place were more accepting of a new proposed nuclear power facility. Venables et al (2012:380) conclude: 'For such residents, the prospect of a new power station being built at the existing local site may represent a potentially unremarkable and unthreatening addition to the landscape...'. This suggests that if a form of proposed energy infrastructure is seen to be congruent with characterisations of a place as containing existing types of infrastructure, then proposed place change may likely be seen as familiar and non-threatening in nature.

By looking across these studies we can note that they are limited in several ways. Firstly, they tend to look at the congruence or incongruence between place and project-related symbolic meanings in isolation and thus neglect to consider the ways in which people's prior place relations (i.e. their life-place trajectories) may have shaped the formation and subsequent dynamic between place and project-related symbolic meanings. Second, these studies tend not to seek or establish associations between degrees of congruence of place and project-related meanings and intensity of or varieties of place attachment.

Whilst Devine-Wright (2011a) suggests that congruence between place and project-based meanings may enhance place attachments and thus account for positive associations between place attachment intensity and support of a tidal energy convertor in Northern Ireland, there is little research that has systematically attempted to establish links between place attachment intensity or varieties of people-place relations and degrees of congruence between place and project-based symbolic meanings in contexts of energy infrastructure development proposals.

5.3 Key limitations of research adopting a place-based approach to understanding public responses toward energy infrastructure proposals;

(1) Both the reviewed areas of literature on place disruption (in section 5.1) and research into public responses to energy infrastructure development proposals (section 5.2) are deficient in the extent to which they acknowledge the role of socio-cultural meanings and processes that may inform experiences of place disruption resulting from proposed place change. The place disruption studies reviewed in section 5.1 typically employ theoretical frameworks (such as Identity Process Theory, Social Identity Theory, and Place Identity Theory) that emphasise the individualistic socio-cognitive nature of place identities and processes of threat to place-based identities.

The same critique can be made of research adopting a place-based approach to understanding responses to energy infrastructure developments (section 5.2). Those studies investigating associations between place attachment/varieties of place attachment and public acceptance of energy project proposals employ largely quantitative-based survey methods and typically focus on the individual as the sole unit of analysis. With the exception of studies that adopt social constructivist theoretical frameworks (through the adoption, for example, of Social Representations Theory) in the study of congruence or incongruence between co-constructed place and project-related meanings (Devine-Wright & Howes, 2010; Anderson, 2013), remaining studies overlook the role of socio-cultural level meanings and processes in their conceptualisations of people-place relations and the subsequent experiences that people have of proposed or actual forms of place change.

Studies based in the socio-cognitive tradition thus tend to neglect the role of interpersonal communication and the socio-cultural level of co-constructed meanings in their conceptualisations of place and in understanding experiences of and responses to place change. This points to the value of adopting a theoretical framework (social representations theory), that moves towards and encompasses the socially embedded and constructed nature of people-place relations and people's experiences of actual or proposed forms of place change (Devine-Wright, 2009).

(2) Research that adopts a place-based approach to understanding public responses to energy infrastructure projects is not overly sensitive to qualitative accounts of the disruptive, threatening (or enhancing) effects of proposed place change upon people's place relations (i.e. upon their intensity of place attachment, varieties of people-place relations, and place-based symbolic meanings), and subsequent responses toward proposed place change. This is in part due to the use of cross-sectional research designs and the use of quantitative survey-based methods (stemming from a principal focus upon the individualistic socio-cognitive approach) which result in a lack of rich descriptive data and a tendency to seek associations or predictive significance of place-related concepts and project acceptance. As a further consequence, little is known as to how particular '*life-place trajectories*' (described in section 4.4 of this chapter) might in fact shape or inform people's experiences of and responses to proposed place change (specifically within the context of a high-voltage power line proposal). Qualitative interview-based research is thus required to elucidate distinct '*life-place trajectories*', and to investigate the ways in which they are seen to inform people's experiences of and responses to a high-voltage power line proposal and forms of proposed place change generally.

(3) More specifically, there is to date a lack of research that has investigated the perceived congruence or degree of 'fit' between place and project-related symbolic meanings (or social representations) within the context of a high-voltage over-head power line proposal. In addition, little is known as to how these 'symbolic logics' of fit (McLachlan, 2009) might shape or predict responses to this kind of project proposal.

- In light of the limitations outlined above, a set of research aims have been developed that are seen to guide the empirical studies to follow (Chapters four to six):

The PhD research seeks to adopt a social representations theory framework which posits that people's experiences of and responses toward proposed place change may be shaped by wider social representations of that form of place change

This research aims to explore the ways in which particular 'life-place trajectories' are seen to inform experiences of and responses to a high-voltage over-head power line proposal (in this case the Hinckley Point C grid connection proposal in South-West England).

A third related and more specific aim is to explore the social representations ascribed to Nailsea and the surrounding countryside and their congruence with social representations of the proposed HPC power line.

6. Theoretical Framework – Social Representations Theory:

Social Representations Theory (SRT) addresses aspects of content, process, function and power with regards to the collective social construction and elaboration of novel or unfamiliar social objects into everyday 'common-sense' forms of knowledge (or representations) by members of a social group(s) (Wagner et al., 1999). Social representations are formed through interpersonal communication and social interaction both 'among individuals and between individuals and the institutionalised structures that define that society' (Moloney & Walker, 2007:2) This section of the literature review will outline the structural and process-oriented aspects of the theory, and position the theory temporally as emerging from an advancement of Durkheim's collective representations, and a move towards a more social constructivist understanding of the formation of social phenomena within social psychology (Devine-Wright, 1998; Moscovici, 1981, 1984, 2001).

6.1 An outline of Social Representations Theory:

Various definitions of what constitutes a social representation have been posited. Wagner et al (1999:95) define a social representation as, '...the

ensemble of thoughts and feelings being expressed in verbal and overt behaviour of actors which constitutes an object for a social group'. A social representation has also been defined, by the originator of the theory, Serge Moscovici, as 'a system of values, ideas and practices' which are designed to enable individuals to position themselves in their material and social world (1999). Social representations are seen to encompass both individual and social aspects of knowledge construction – '...the process of representation is transferred and enlarged from the individual subject into his or her social and interactive context' (Flick, 1994:183) – and are seen to be formed through the everyday acts of communication that occur between various actors comprising a social group(s) (Billig, 1993:45).

Symbolic coping (see figure 2.6) designates the formation and elaboration of a social representation and is the name given to the process through which a novel or unfamiliar social object or event is rendered familiar by a social group (Lauri, 2009). In other words, it is the process by which an unfamiliar social object is assimilated and integrated into a social group's existing stock of socio-cultural meanings. As Moscovici (1984:24) proposes, the purpose of social representation is 'to make something unfamiliar, or unfamiliarity itself, familiar'. The initial sub-process of symbolic coping is called '*anchoring*' and this refers to the naming and attribution of characteristics to novel or unfamiliar social objects, enabling a social group to interpret, understand and communicate with one another about the object in familiar terms. As this process unfolds over time, the formation of discourses (organised sets of social representations) relating to the anchored social object are likely to emerge (Frouws, 1998; Wagner et al, 2009). The second sub-process, 'objectification', refers to the process whereby the anchored social object becomes a concrete property of a group's social reality, in the form of an image, metaphor or symbol (Devine-Wright & Devine-Wright, 2009). Objectification is 'a mechanism by which socially represented knowledge attains its specific form...an icon, metaphor or trope which comes to stand for the new phenomenon or idea' (Wagner et al, 1999:97).

The process of symbolic coping can arise due to novel events, such as new scientific discoveries (Moscovici, 1984) or proposed changes to a place (Devine-Wright, 2009), whereby a novel or potentially unfamiliar event triggers

attempts by social groups to assimilate the unfamiliar into existing sets of socio-cultural meanings. The process of social representation thus functions to enable individuals to position themselves in their material and social worlds, and allows for collective communication amongst members of a social group regarding a novel social object or event.

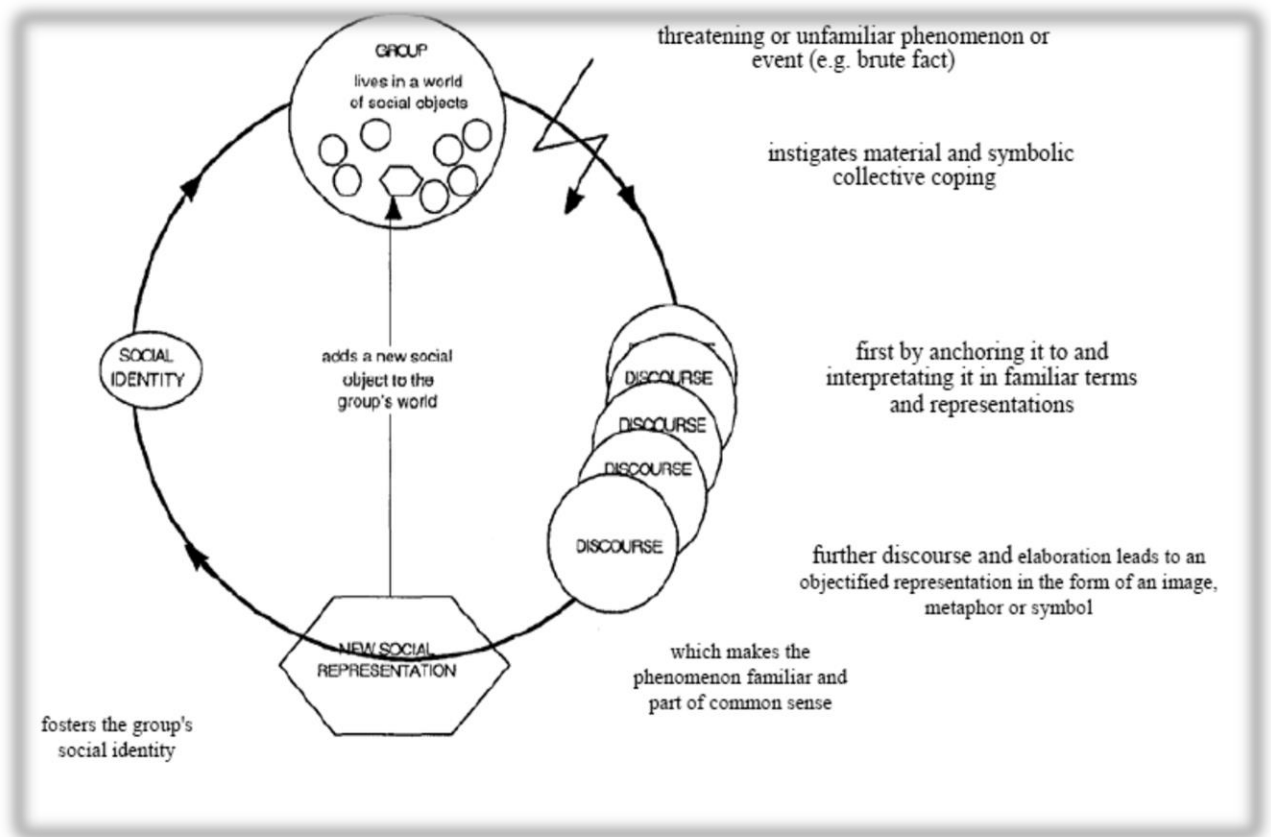


Figure 2.6: The 'socio-genesis' of social representations (Wagner et al., 1999).

Whilst mindful of the individual positionality of social representations, social representations theory was developed based on a critique of the socio-cognitive trend present within social psychology (this critique has also been applied to socio-cognitive oriented place concepts in sections 4.4 and 5.3 of this literature review section where a similar shift toward the socio-cultural oriented study of people-place relations has been proposed and more recently undertaken). The socio-cognitive trend tends to focus, both in theory and methodology, upon the cognitive content and processes of individuals. According to Billig (1993:42), '...the thinker is examined in social isolation, as if cognitive calculations are computed in a social void, and the content of the thoughts were produced by a cognitive Robin Crusoe'. The socio-cognitive approach is deemed problematic

in that it overlooks the social construction and elaboration of social meanings and behaviour. For Moscovici (1984), psychological states are collectively determined through the social representations that groups co-construct and share.

Social representations theory thus acknowledges that social representations can be observed and examined at the socio-cultural level. A social representations approach, whilst mindful of the individual positionality of such representations, stresses the social and cultural level at which social representations are co-constructed and shared by members of a social group. However, it should be noted that social representations theorists position themselves at different places along the individual to social continuum (Castro & Batel, 2008). In this sense, it is perhaps better to think of social representations as existing 'across' minds, 'resembling...a canopy being woven by people's concerted talk and action' (Wagner et al. 1999:95). It is, in part, through daily talk and action between members of a social group, that social representations acquire their 'social' nature and form part of the web of social meanings and practices that we call the culture of a group.

Serge Moscovici's 'social representations' can be contrasted with Durkheim's notion of 'collective representations', which formed an important antecedent to social representations theory. Durkheim's collective representations are based primarily on 'traditional' societies, are seen to be communally maintained over generations, and are characterised as enacting coercive weight over social groups. Collective representations are seen to be applicable to a particular type of society – one that is 'primitive', 'static' and 'closed' (Devine-Wright, 1998:7). Far from the 'thinking society' put forward by Moscovici (1984:15), Durkheim's collective representations are symptomatic of a 'devaluation of thinking' where social thought is seen to be 'pre-programmed' by a set of traditional, static and dominant representations (Billig, 1993:44).

Moscovici however argues that Durkheim's collective representations devalue the thinking society by '...maintaining that groups and individuals are always and completely under the sway of a dominant ideology which is produced and imposed by their social class, the State, the Church or in the school, and that what they think and say only reflects such an ideology. In other words, it is

maintained that they don't as a rule think, or produce anything original, on their own: they reproduce and, in turn, are reproduced' (Moscovici, 1984:15). Social representations, in contradistinction, are seen to be acquired and transformed through social participation, and clear emphasis is placed upon the potential for innovation and change in the development of representations as established by a 'modern', 'changing' and 'open' form of society (Devine-Wright, 1998:7).

Social representations are the product of active participation by a social group, and are therefore understood as dynamic and evolving phenomena, with a high degree of differentiation within and across groups. Whereas collective representations are informed by traditional beliefs, myths and practices (such as religions), social representations are seen, according to Moscovici, to be derived from the acquisition and transformation of scientific theories and concepts, and are thus indicative of 'modern' society: 'Moscovici is assuming that scientifically-originated concepts are beginning to fill the modern mind, and that the modern thinking society is using these concepts as it converses out aloud' (Billig, 1993:52).

6.2 Social Representations Theory and the study of people-place relations in contexts of place change:

Some researchers have usefully adopted a Social Representations Theory perspective to the study of actual and proposed place change, such as controversial infrastructure siting proposals, investigating the congruence between place-related symbolic meanings (social representations of place) and interpretations of place change (Devine-Wright, 2009; Devine-Wright & Howes, 2010; Anderson, 2013).

Devine-wright and Howes (2010), for example, utilised focus group interviews amongst residents of two coastal towns in North Wales and sought to explore place-related symbolic meanings (social representations of place) and their perceived fit or congruence with representations of a proposed offshore wind farm. The study showed that in the coastal town of Llandudno predominant place-related symbolic meanings included 'aesthetic beauty', 'pleasant living', 'holiday resort' and 'coastal features'. These were seen to contrast with interpretations of the proposed wind farm as 'monstrously damaging', as industrialising the area and fencing in the bay, suggesting the wind farm was

opposed due to the threat to a place constructed as beautiful, 'natural' and restorative (i.e. a lack of congruence or fit between representations of the place and the project proposal). A questionnaire survey was also employed and was designed to capture place attachment and place-related symbolic meanings.

Anderson's (2013) PhD thesis showed, using a mixed-methods approach (a series of semi-structured interviews combined with a questionnaire survey study), that residents of North-West Tasmania represented the rural landscape and plantation forestry (a relatively novel form of change in the area) in different ways. Semi-structured interviews were used in order to investigate the way in which plantation forestry was represented in different ways within the context of shared and divergent meanings attributed to the rural Tasmanian landscape. A questionnaire survey study was then employed in order to examine the range and extent of different meanings attributed to the rural landscape and beliefs about large scale plantation forestry. Cluster analysis was used to group people according to the ways in which they represented the rural Tasmanian countryside (based on prescribed survey items taken from interview data) and a series of one-way ANOVA tests were undertaken in order to establish associations with representations and evaluations of plantation forestry. Findings suggested that those attributing a range of lifestyle and amenity related meanings to the rural landscape were more likely to oppose plantation forestry on the grounds that it posed an unacceptable risk, whereas those attributing meanings of production were likely to represent plantation forestry as both risk and benefit.

These two empirical studies suggest that people share divergent and varied co-constructed representations of natural and built environments that are seen to fit, or not, with interpretations (or representations) of proposed localised forms of place change and thus inform responses to them. These studies adopt a theoretical framework that situates social representations of place(s) as socially shared and co-constructed phenomena, rather than solely individual cognitive constructs. The methodological implications of this shift in analytic focus equates to the use of a mixed-methods approach in both of the aforementioned studies, where qualitative interview-based methods, such as focus group interviews, are used to facilitate and access the elaboration of co-constructed social representations of place, and where quantitative survey-based methods

and forms of analysis are utilised in order to investigate relationships between social representations of place and place change amongst larger representative samples.

However, with the exception of these more recent studies, research into people-place relations within environmental and social psychology has tended to be dominated by an individualistic, socio-cognitive approach to the study of place attachment and varieties of people-place relations. Social representations theory can assist in addressing this limitation by acknowledging that people's place relations are not only observable or situated at the personal or socio-psychological level - what Di Manno and colleagues (2014:75) see as the 'deep-seated, internalised, emotional affinity that individuals experience towards particular places' - but are situated at the wider socio-cultural level of analysis. Therefore, individuals' personal place relations can be seen to be situated and in interaction with wider socio-cultural level meanings (or social representations) of place and of attachment/non-attachment to place more generally.

This PhD thesis thus conceptualises individuals' personal emotional relationships with place(s) - people's life-place trajectories and varieties of people-place relations - as individual level personal phenomena that are *embedded within and informed by wider socio-cultural representations of place (both specific places and places generally) and wider societal representations of ways of relating to place generally* (Manzo & Perkins, 2006; Devine-Wright, 2009). This PhD thesis thus addresses the current neglect of existing literature on people-place relations within environmental and social psychology to acknowledge the socio-cultural level of co-constructed representations in the elaboration of people's personal place relations.

Social Representations Theory can also usefully contribute to understanding and elucidating co-constructed meanings, ideas and beliefs around a localised and novel form of place change (such as a large-scale high-voltage over-head power line proposal) through an appreciation of the process of symbolic coping. This process arises when novel events or social objects trigger attempts by social groups to anchor and objectify the 'unfamiliar' into existing sets of socio-cultural meanings or representations. Whilst residents of a place are likely to relate to that place in different ways (i.e. identify with distinct varieties of people-

place relations and ascribe particular place-based meanings), people's existing social representations of place may shape the ways in which people go on to interpret and thus represent proposed place change.

The process of symbolic coping implicit in social representations theory will be brought to the fore in this PhD thesis, by exploring the ways in which objectified representations (in the form of socially shared metaphors, idiomatic expressions, and similes) of ways of characterising and relating to one's residence place, and of characterising a proposed power line proposal, are drawn upon and expressed by participants in order to situate their own personal relations to the residence place and to situate the proposed power line in relation to surrounding countryside areas.

The processes inherent in social representations theory (anchoring and objectification) can be seen to result in different types of social representation. 'Hegemonic' social representations are those that are 'rather stable, prescriptive and consensually shared across a society or a culture' (Batel & Castro, In Press) - they are shared by members of society and thought as unquestionable and taken-for-granted, having been passed on over generations. 'Polemic' social representations, on the other hand, are seen to arise 'in the course of social conflict, social controversy, and society as a whole does not share them' (Batel & Castro, In Press) - these social representations are seen to arise in particular situations where a novel or unfamiliar social object, event, or form of place change occurs, and where divergent competing group-based representations are likely to emerge (Liu, 2004). Both hegemonic and polemic social representations are seen to take the 'concrete' form of metaphors, idiom, similes and tropes following the process of objectification, where socially represented knowledge attains its specific form: '...social representations are related to thinking in terms of images, icons, and metaphors' (Lauri, 2009: 650).

The use of metaphors and similes will be highlighted throughout the empirical study chapters of this thesis. It will be shown how participants express hegemonic social representations in order to characterise ways of relating to place generally. Furthermore, participants will be seen to express objectified polemic representations relating to ways of characterising a proposed high-

voltage power line proposal and nearby countryside areas given the context of a new and potentially unfamiliar controversial form of place change.

6.3 Methodological implications of adopting a Social Representations Theory framework:

Empirical studies adopting a Social Representations Theory perspective have used a diverse set of qualitative (ethnography, focus group interviews, media analysis) and quantitative (questionnaire surveys, analysis of word association) methodological approaches, at times adopting a mixed-methods approach (Flick, 1994; Wagner et al., 1999; Devine-Wright, 2010; Devine-Wright, 2011a). For a theoretical perspective that can be oriented toward the study of both the individual and the societal, there is an apparent methodological polytheism amongst studies adopting a social representations theoretical framework (Farr, 1993).

Farr and Moscovici (1984) postulate a number of methodological principles. These include obtaining material from samples of conversations usually exchanged in communicative social group settings, and the recognition that social representations emerge in times of crisis, when a group and its image is faced with change. Given these principles, Flick (1994) suggests the use of open interviews which have a retrospective narrative design allowing the researcher to acquire more detailed and descriptive accounts of the social phenomena (or representations) under study, as well as their dynamic, changing and potentially conflicting nature.

In a similar vein, Devine-Wright and Devine-Wright (2009) used both verbal and image-based methods in order to explore every day shared symbolic meanings associated with electricity pylons, the National Grid and network change. The study consisted of nine focus-group interviews in order to access a range of every day representations which were seen to unfold through a mutual communicative setting. The study employed the novel use of drawing tasks in order to explore participants ideas concerning electricity supply and this was seen to relate to the role that images play in providing 'a fulcrum for day-to-day conversation, enabling people to both understand and be understood' and rendering technological issues and scientific processes in closer proximity to everyday common-sense understandings (2009:359).

Elsewhere, the adoption of a mixed methods approach can, on the one hand, usefully provide a detailed 'thick description' of a social object (representation) through the use of qualitative methods such as narrative interviews or group-based interviews, and on the other, establish the social distribution or relationship between a range of social and psychological phenomena through the use of quantitative methods, such as a questionnaire survey (Flick, 1994).

This PhD thesis adopts a mixed-methods approach. Study chapter four employs narrative interviews in order to investigate people's personal 'life-place trajectories' and varieties of people-place relations, as well as wider social representations of place and ways of relating to place generally. Whilst this method entails and is well-suited to a predominantly individual in-depth focus, the study seeks to position individuals' life-place trajectories and place relations to the current residence place within wider social representations of place (which are seen to be both place specific and non-place specific). Study chapter two employs focus group interviews which are deemed better suited to revealing the socio-cultural context of social representations that contributes and informs individuals' people-place relations through inter-personal communication. As Lauri (2009:650) states 'The focus group is the thinking society in miniature and therefore it is ideal for bringing out the social representations held by participants on complex issues...'. Study chapter three utilises a large-scale questionnaire survey that includes measures of people-place relations that are situated at both the societal/socio-cultural level (i.e. representations of the countryside around Nailsea and representations of generalised ways of relating to place) and at the socio-psychological level (i.e. measures of individuals' varieties of people-place relations, place attachment intensity, and perceptions of project-based factors concerning procedural and distributive justice).

6.4 Limitations of Social Representations Theory:

In a first critique of Social Representations Theory, Billig (1993) argues that the process of symbolic coping, as described above, tends to overlook the role that rhetoric and argumentation play in the formation and acquisition of social representations. According to Billig, a large part of what constitutes thinking, and thus the 'thinking society', is the human faculty of argumentation and the

subsequent role of rhetoric in the communicative process. Billig argues that, despite the central importance of communication afforded to the development of common-sense forms of knowledge in Social Representations Theory, the theory tends to neglect the significant influence that argumentation and rhetoric have upon the formation of social representations and their subsequent position within sets of power relations. Thus Billig suggests (1993:46): ‘...the social representation approach, which aims to explore the thinking society, might be directed towards paying special attention to the argumentative aspects of communication’. Batel and Devine-Wright (2014) have also recently proposed the examination of rhetorical meaning-making within a Social Representations Theory approach to understanding responses to renewable energy technologies. Whilst the three study chapters of this PhD thesis do not acknowledge or inquire into place-based rhetorical devices utilised by research subjects in order to perform particular social actions (as is the case in attempts amongst discursive psychologists to investigate the social actions performed by particular rhetorical constructs of place attachment), future studies adopting a social representations theory approach to the study of people-place relations in contexts of controversial forms of place change could fruitfully pursue such a focus.

A second limitation of Social Representations Theory can be aimed at its neglect of the place-based component of human experience and identity-making. Moloney and Walker (2007) propose that Social Representations form the basis of groups’ social identities, but the theory has typically paid little attention to the social construction of place-based representations based upon the socio-physical settings that people inhabit and the formation of groups’ *place* identities. As previously established in this chapter, places hold important symbolic attributes that contribute to an individual or group’s place identity, and are sites of emotional attachment and non-attachment (Devine-Wright, 2009; Giuliani, 2003, Lewicka, 2011b). Social Representations Theory has typically neglected to account for the possibility that the formation and acquisition of groups’ social representations may be grounded in relationships with place(s). In light of this, some researchers (Devine-Wright, 2009; Devine-Wright & Howes, 2010; Anderson, 2013) have forwarded a social representations theory approach to understanding the symbolic attributes that people form and ascribe

to places (named 'place-related symbolic meanings'), which are seen to be communicated inter-subjectively. This PhD thesis extends this focus by investigating social representations of the ways in which people relate emotionally to places generally (explored in the second empirical study chapter).

6.5 Ontological and epistemological considerations:

Ontological considerations and social representations theory;

This PhD research adopts a constructionist ontological position that challenges the objectivist view that social reality and phenomena are pre-given entities that function as external realities constraining individuals and social groups that are seen as having no role in shaping their social worlds (Bryman, 2008). This objectivist ontological position is akin to Durkheim's notion of 'collective representations' that are seen as enacting coercive weight over social groups that are seen as passive and under the sway of dominant social ideologies: '...it is maintained that they don't as a rule think, or produce anything original, on their own: they reproduce and, in turn, are reproduced' (Moscovici, 1984:15). Constructionist ontology, on the other hand, asserts that people's social realities are 'emergent' (rather than 'external' to individuals and social groups) and in a constant state of construction and re-construction. Social realities and meanings are not just there as natural objective phenomena, but are constructed by a series of social arrangements and practices, and constituted in and through social interaction (Potter, 1996). A constructionist position thus stresses the active role of individuals and social groups in the construction of their own social realities (Speller, 2000). The development of a constructionist ontology has typically been oriented toward a focus on establishing the processes of the social construction of social reality (Berger & Luckmann, 1971) and an interest in how social reality is represented symbolically (Corbin & Strauss, 2008).

Social Representations Theory can be situated as and within a constructionist ontological outlook in that the theory proposes that social phenomena (or representations) are socially constructed and derived from specific processes (anchoring and objectification) based on social interaction amongst and between individuals, social groups and societal institutions (Wagner et al., 1999). As outlined in the preceding sections, social representations theory

stresses the active participation of members of social groups in the formation of social representations and emphasis is placed upon the potential for innovation and change in the development of social representations (Devine-Wright, 1998). Social representations are thus seen to be dynamic and evolving social phenomena that form the basis of a group's common-sense set of meanings and thus constitute their social reality. Through the processes of anchoring and objectification - where novel social objects are socially represented by groups and thus made familiar based on existing sets of social meanings – new sets of social meanings are continuously constructed (and re-constructed) forming social discourses (sets of social representations) that constitute the dynamic social worlds of individuals and groups. The process of social representation can be seen to result in the elaboration of divergent and often conflicting social representations (Batel & Devine-Wright, 2014) that act 'as symbolic tools which allow group members to make sense of their social world and their relationships to other groups' (Andreouli & Howarth, 2013:363).

This PhD research adopts a constructionist position (through the use of social representations theory) in that it sees the 'reality' experienced by narrative and focus group interview participants, and questionnaire survey respondents, as being shaped by the meanings (or representations) they attribute to their social, physical and cultural environment (Speller, 2000). Aligned with the study of people-place relations, people's individual experiences with place – their personal place attachments and/or varieties of people-place relations – can be seen to be situated and embedded within a wider socio-cultural context of social representations regarding ways of characterising or relating to place generally, which are socially constructed and shared within and across social groups and societies.

Epistemological considerations;

This PhD research adopts an interpretivist epistemological stance that is critical of positivism. Positivism is an epistemological position that: (1) advocates the application of the natural sciences to the study of social reality, positing that 'genuine' knowledge is that confirmed by the senses and observation alone; (2) holds the view that there is an external reality that scientist attempt to study and provide a description of (i.e. a direct reflection of that external reality); (3) posits

that scientific study be conducted in a manner that is theory and value free (Bryman, 2008; Hughes, 1980).

Interpretivism, on the other hand, is an epistemological position that proposes social scientific research and approaches to the generation of social knowledge are different to that of the natural scientific (positivist) approach. Rather, social reality is seen to have meaning for human beings and thus human action is seen to be meaningful, but the meanings and actions that constitute an individual's or group's social reality are socially constructed in such a way that human beings *interpret* (or represent) social objects and actions – individuals' and social groups' social realities are thus socially constructed and interpretive in nature (Bryman, 2008). It has therefore been deemed inappropriate for social scientists to adopt a positivist stance to the study of social phenomena – where a direct descriptive reflection of an 'external' (social) reality can be obtained – since human beings' social realities are seen to be 'emergent' (being continuously interpreted and re-interpreted) and thus not constitutive of one sole reality external or distinct from the researcher. Since human beings' social realities are interpretive in nature, there can be no one external social reality to study, but rather multiple interpretations of social phenomena that we as social scientific researchers can only interpret ourselves. From an interpretivist standpoint, it is deemed the job of the social scientist 'to gain access to people's 'common-sense thinking' and hence to interpret their actions and their social world from their point of view' (Bryman, 2008:16).

This interpretivist epistemological approach to what is considered appropriate knowledge about the social world has a series of implications. First, truth becomes an elusive concept since social meanings do not simply reflect the world as it is or exists, but 'are produced or constructed by persons within cultural, social and historical relationships' (Henwood & Nicolson, 1995:19). In other words, the researcher presents a specific version of social reality, rather than one that can be regarded as definite. Second, the study of social realities and phenomena cannot be theory or value free since the data researchers collect and analyse (the researcher's interpretation) is inevitably shaped not only by the researchers own socio-cultural positionality, but also by existing and developing academic theories and concepts (Speller, 2000). Third, there are methodological implications to this interpretive endeavour. With an increased

focus on the interpretation of social meanings, researchers concentrate more on what is said and how issues are expressed by individuals and groups, thus gravitating more toward the use of qualitative methods which are deemed more sensitive to the variability and complexity of social worlds and are deemed better able to acknowledge larger social, political and cultural contexts within which social meanings are constructed, than quantitative research methods (Corbin & Strauss, 2008).

This PhD research thus situates the study of and knowledge of social representations as an interpretivist endeavour. This interpretive process is not about providing a simple reflection of how a social group(s) interpret or represent the world around them, but aims to position the interpretations elicited from research participants into a social scientific framework. As Bryman (2008:17) posits: 'There is a double interpretation going on: the researcher is providing an interpretation of others' interpretations'.

Methodological implications of adopting constructivist ontological and interpretive epistemological perspectives:

By adopting constructivist ontological and interpretivist epistemological positions, the social phenomena being studied are likely to be complex and multi-faceted, and there are likely to be competing social meanings functioning and circulating in any socio-cultural context. These complex social phenomena are also likely to be expressed through discussion and social interaction amongst members of social groups. According to Corbin and Strauss (2008), inquiring into such social phenomena necessitates research methods that are able to capture the complexity of social realities and are therefore able to obtain multiple perspectives and variation of social phenomena and position social meanings and actions within a larger social, political and cultural framework. This also necessitates research methods that are open to the everyday dialogue and interaction between members of a social group or place (Devine-Wright, 2009).

As previously stated, this transition toward constructionist and interpretivist perspectives in the social sciences has resulted in the use of qualitative research methods (such as unstructured narrative or life history interviews, semi-structured interviews, ethnography, and participant observation) that are

sensitive to the variability and complexity of people's social worlds and able to account for the construction of social meanings through inter-personal communication amongst and between individuals comprising a social group. The use of narrative interviews (empirical study chapter one) and in particular focus group interviews (empirical study chapter two) were thus deemed well-suited to tapping into the socio-cultural context of social representations (a level of analysis implicit within social representations theory) within which people's personal place relations are seen to be situated.

This does not however preclude the use a quantitative method, such as a questionnaire survey, by virtue of the fact that the survey method was, firstly, well-suited to attending to the key research aims and related questions in empirical study chapter three. Furthermore, use of extracts from both qualitative interview-based studies in order to formulate questionnaire survey items was deemed an appropriate means of overcoming a common limitation and critique of the survey method – that is, that it limits and fixes social meanings when these are typically seen to be variable, competing and dynamic – and was thus seen as a good way of complementing the preceding narrative and focus group interview methods (Speller, 2000).

7. Project-related factors influencing public responses to energy-related infrastructure projects:

The following section of the literature review will critically engage with research that has investigated the role of 'project-related' factors (i.e. those relating to features of the actual infrastructure and perceived positive and negative impacts, perceptions of social justice, and trust in social actors) upon public responses to energy-related infrastructure development proposals. This section will be broken down into the following sub-sections: (7.1) Social Justice – perceived procedural and distributive justice; (7.2) Perceived positive and negative local impacts; and (7.3) Perceptions of trust in social actors.

7.1 Social Justice – the roles of procedural and distributive justice;

Research into social justice comprises the study of people's perceptions over what is considered just or unjust within a social setting, and the subsequent effects that such judgements can have on affective, attitudinal and behavioural

responses (particularly when approached from a socio-cognitive perspective): *'Studies show that judgements about what is "just", "fair", "deserved", or something one is "entitled" to receive are a central social judgement which lies at the heart of people's feelings, attitudes, and behaviours in their interactions with others'* (Tyler & Smith, 1995). Tyler (1994) designates two predominant forms of 'justice' to have emerged within social justice studies – (1) *Procedural justice*, which refers to the fairness of a decision-making process, and (2) *Distributive justice*, which refers to the fair allocation and distribution of resources.

Both of these concepts have been employed in the study of public acceptance toward forms of place change. A number of studies (Lima, 2006; Mannarini et al, 2009) have suggested that lack of perceived fairness in the decision-making process over the siting of infrastructure developments can result in such projects being deemed unacceptable by a population. This can be due to a siting decision being made without proper consultation with local authorities, a population claiming to have been largely ignored during the decision process, or because the decision-making process was not clear or transparent (Lima, 2006). Realisation of procedural injustice by a group can lead to feelings of anger, negative attitudes and behavioural opposition (in the form of social movements or local action groups) towards an infrastructure development proposal (Mannarini, 2009). Similarly, it has been suggested that the potential resource imbalance that arises between, on the one hand, the perceived costs incurred locally by an infrastructure project proposal, and on the other hand, perceived benefits accrued by industry and government actors at the national or global level, can result in lower levels of project acceptance by locally affected communities (Lima, 2006; Mannarini et al, 2009; Bolinger et al, 2004).

- *Studies investigating public and industry actor perceptions of procedural justice issues;*

Studies that utilise procedural justice theory within the context of infrastructure siting proposals typically attempt to capture people's perceived fairness of involvement in the decision-making process and establish the extent to which perceived procedural justice or injustice act as predictors of certain attitudes and behaviour.

Lima (2006) undertook a comparative investigation of the role of social justice (both distributive and procedural forms) in predicting acceptance towards a proposed waste incinerator amongst participants in Oporto and Lisbon, Portugal. The study employed a large-scale questionnaire survey (N=750) in both locations in order to capture distributive (local benefits versus local costs) and procedural justice, and then proceeded to carry out a logistic regression analysis in order to gauge the predictive significance of each of these variables. Procedural justice was seen to emerge as a significant predictor of objection toward the proposed waste incinerator.

Mannarini et al (2009), in a second instance, attempted to establish predictors of participation in an Italian LULU (Locally Unwanted Land Use) movement against a proposed high-speed railway following Klanderman's (1997) model of participation in social protest movements. The study utilised, in a first instance, 24 interviews with residents of the Susa Valley. Objection toward the development was seen to be predicated upon a sense of procedural and distributive injustice. A second questionnaire survey study (n=250) amongst a representative sample of Susa Valley residents was employed and hierarchical logistic regression analysis showed that 'sense of injustice' emerged as one of the most significant predictors of participation in the LULU movement. The regression analysis did not, however, differentiate between the predictive significance of each of the forms of injustice which poses a limitation upon the study.

To date, a relatively low number of empirical studies have investigated the concept of procedural justice with regards to high voltage over-head power line proposals. Devine-Wright's (2013a) study is novel in its efforts to integrate both project and place-related variables within an explanatory study investigating levels of acceptance to an over-head transmission line proposal in South-West England. A large-scale questionnaire survey was utilised to gauge the perceived fairness of involvement in the decision-making process (relating to the siting of the power line) amongst 503 participants from the town of Nailsea, South-West England. Findings from this study suggest that a belief that National Grid's (the UK transmission network operator) planning and consultation procedures are unjust (i.e. limited capacity and time for local residents to shape and respond to proposals) were strongly associated with objections to the

power line. The study is, however, limited in that it excludes a measure of distributive justice.

Several other studies (Devine-Wright et al, 2010; Cotton & Devine-Wright, 2011a) investigating public perceptions of electricity network infrastructure in the UK suggest that members of the public do not consider local residents to have a meaningful level of involvement in the decision-making process over power line siting. Cotton and Devine-Wright's (2011b) Q-method study of electricity transmission siting in the UK established a clear discourse (Factor A) whereby respondents identified a need for greater involvement of local community actors in decision-making, reported a perceived lack of opportunity for meaningful participation by community members, and expressed pessimism concerning the ability of local protestors to influence the decision-making process. A further empirical study that utilised a large-scale online survey (N=1041) amongst a nationally representative sample of UK adults to explore public beliefs about electricity supply networks (Devine-Wright et al., 2010) found that most members of the public don't consider locally affected residents to have a meaningful level of involvement in the planning of new power lines. Studies investigating public perceptions of electricity network infrastructure proposals in the UK and Norway (Cotton & Devine-Wright, 2011a, 2011b; Knudsen, In Press; Aas, et al., 2014) have corroborated such findings. Aas et al. (2014) conducted a comparative study of public beliefs about high-voltage power lines in Norway, Sweden and the UK, using a large-scale questionnaire survey (N=5107) amongst nationally representative samples in each location. Results suggest that in all three countries people generally perceived local residents as largely un-involved in decision-making around the siting of specific development proposals.

In contrast to capturing perceived procedural justice amongst local communities affected by a power line proposal, some research has attempted to probe industry actor perceptions of 'publics' and 'stakeholders', and to then establish how such constructs inform National Grid's rationales, methods and practices of public engagement and community consultation (Cotton & Devine-Wright, 2010, 2011a, 2011b; Devine-Wright, 2011c).

Research that explores electricity network operators' perceptions of the 'public' supports the view that local community residents affected by proposed overhead power line siting are given limited involvement in planning decisions. Electricity network operators have been shown to hold NIMBY (Not In My Back Yard) assumptions of the public, whereby local community members opposed to power line siting are typically viewed as ignorant, irrational or self-interested individuals. Network operators have been found to hold a 'deficit' view of such groups, presuming that 'lay people are ignorant of technological issues and unable or unwilling to engage with policies around new technologies' (Devine-Wright, 2011c:22). Furthermore, industry actors believe that residents hold purely self-interested views concerning privately-owned property and that they are an irrational group unable to act in any constructive capacity towards decision-making on proposed electricity infrastructure developments. It has been argued that such assumptions have gone on to directly shape network operators' consultation practices in a number of ways (Cotton & Devine-Wright, 2010, 2011a; Devine-Wright, 2011c):

1. When engaging in the pre-application consultation stage, National Grid plc. will seek input from key technical and strategic stakeholders and TNO personnel, followed by consultation with affected local planning authorities. Once broad route corridors have been identified, community consultation practices with locally affected communities begins. Such practices typically involve the use of public exhibitions along a pre-determined broad route corridor, as well as project briefings with Parish or town councils and information provision through the use of leaflets or online resources (Cotton & Devine-Wright, 2010). The public's involvement in planning for new transmission line connections thus consists of 'downstream' engagement, with exclusion from a 'strategic', 'upstream' decision-making capacity. This affords local community members limited scope or capacity to influence what is already seen as a pre-determined route corridor decision-making process, and in addition, leaves people unsure as to whether their feedback will actually be used in any meaningful way by National Grid plc.

2. Community consultation mechanisms tend to emphasise information provision and placation as a means, by the developer, to remedy the perceived information deficit of local community members. The hope is that supplying

information regarding the siting of a high-voltage overhead electricity transmission line will lead to diminished levels of local conflict towards such development proposals, and that subsequent support for power line siting and awareness of their wider societal benefits will increase (Cotton & Devine-Wright, 2010; Cotton & Devine-Wright, 2011a).

The resulting tensions between electricity industry actors who, on the one hand, view members of the public as incapable of making strategic level decisions, and local community members who, on the other hand, perceive a lack of adequate involvement in the developer's community consultation practices, has led to what Devine-Wright (2011c) has termed a self-fulfilling cycle of NIMBYism in public engagement. When industry actors interpret local opposition as NIMBY-type responses, then subsequent consultation practices will attempt to allay such opposition and inadvertently induce further objection.

Cotton and Devine-Wright (2010, 2011a, 2011b) have tentatively proposed the remedial measure of moving community consultation further 'upstream' and thus endowing locally-affected communities with greater decision-making capacity. There have also been calls for developers to go beyond mere information provision and to engage in deliberative type workshops when consulting local communities (Rowe & Frewer, 2005; Sigrid, 2006; Cotton & Devine-Wright, 2013).

- Studies capturing public perceptions of distributive justice;

As previously discussed, it has been suggested that perceived distributive injustice can be seen to associate with lower levels of public acceptance toward certain infrastructure project proposals. When a local community perceives the costs of a proposal to be greater than the benefits received, then a higher level of reported distributive injustice may arise. Existing empirical studies (Lima 2006; Mannarini et al, 2009) showed that perceptions of distributive injustice were seen to predict both opposition to a waste incinerator plant, and participation in a LULU movement. As yet, no study has attempted to capture public perceptions of distributive justice within the context of a localised transmission line siting proposal. Such a task would be relevant given the predictive significance of distributive justice in existing empirical studies.

Little research has attempted to capture people's evaluations of developer and government-led mitigation measures with respect to perceived distributive injustice. Providing community benefit packages to locally affected residents (as a means of 'redistributing' the benefits of a project) are seen as a strategy to ameliorate public acceptance of infrastructure proposals. It has been assumed, for example, that deployment of renewable energy technologies would be better able to overcome public resistance if projects were implemented so as to increase local ownership and/or provide local benefits that re-dress locally-borne costs (Cass et al, 2010). However, relatively few studies have attempted to gauge people's views concerning such mitigation measures within the context of both renewable energy and electricity network development proposals.

A study by Cass et al (2010) explored industry understandings and public reactions to community benefits packages linked to renewable energy projects in the UK. The authors identify four types of community benefit provision that were outlined in a government guide to the delivery of community benefits from wind farms (DTI, 2007) – these include:

- Community Funds: whereby a developer provides a lump sum or regular payment for the benefit of local residents.
- Benefits in kind: in which a developer pays directly for local community facility improvements, environmental improvements, visitor facilities, or school and educational support.
- Local ownership: in the form of shares in a wind farm project by local people.
- Local contracting: whereby local people and businesses are engaged during construction and development.

With regards to individual forms of benefit package, the paper reported a rejection of *local contracting* on the grounds that it was seen to lack any serious long-term benefit to the local community. *Benefits in kind* were viewed both positively and negatively by research participants, whereas a *community fund* was viewed negatively by some as a 'sweetener' offered by a developer to the local council and local community members. The paper concluded: '...while we see a mix of views across the focus group discussion, there is much

questioning, much scepticism and a significant degree of dismissal of the significance of any local benefits that are being offered or claimed' (2010:270).

In the context of wind farms, community benefits are commonly provided by large commercial developers who finance a community benefit fund and then determine how the funds are to be spent (e.g. reducing local energy bills, providing donations to local groups/clubs) (Walker et al., 2014). However, it would be an over-simplification to suggest community benefit provision will necessarily lead to project acceptance given evidence that benefit provision can be perceived as a form of bribery with the effect of lowering project acceptance (Cass et al., 2010; Walker et al., 2010; Walker et al., 2014; Tobiasson & Jamasb, 2014). For example, an experimental questionnaire survey study by Walker et al. (2014) found that support for a hypothetical future off-shore wind farm in Exmouth (UK) diminished in a 'dual-framing' condition, where community benefits were presented as both beneficial and as a form of bribery. Whilst there have been recent calls for power line companies in the UK to make benefits packages available to rural communities (Renewable Grid Initiative, 2011) there is a need for further research that investigates perceptions of various types of benefit provision (Community funds, Benefits in kind, Local ownership, Local contracting – Cass et al, 2010) in the context of high-voltage power line proposals.

7.2 Perceived local impacts of transmission power line projects:

Some empirical studies have investigated community members' perceived impacts of existing (Priestley & Evans, 1996; Soini et al., 2011) and proposed (Devine-Wright, 2013a) over-head transmission lines using questionnaire surveys. Studies suggest that public perceptions of the impacts of transmission power line and pylon projects tend to be more negative than positive. Respondents reported a number of key concerns relating to; (1) Visual and aesthetic impacts, (2) Human health and safety impacts, (3) Impacts on the economic value of privately-owned property, and (4) Effects upon avian wildlife.

In a research paper employing a questionnaire survey (N=603) to investigate local residents' perceptions of existing and new transmission lines in Southern Finland (Soini et al, 2011), findings revealed that respondents held largely negative views of transmission lines, with 64% of respondents considering

transmission lines to be negative landscape elements and 82% viewing transmission lines as having a negative effect on the surrounding landscape. Negative beliefs were most strongly associated with negative visual and noise impacts, health concerns relating to Electro-Magnetic Field (EMF) exposure, adverse effects on property value and damaging effects on avian wildlife.

A questionnaire survey (N=266) carried out by Priestley and Evans (1996) similarly attempted to gauge resident perceptions of a nearby electricity transmission line in a suburban neighbourhood of San Francisco. The study revealed that 75% of respondents held negative or very negative feelings towards the transmission line and findings indicated that health and safety concerns were perceived the most negatively, alongside negative aesthetic impact and property values.

Devine-Wright's (2013a) study into levels of objection and acceptance of a proposed high-voltage power line in South-West England (previously reviewed at the start of section 5.2.2) reveals that over 80% of respondents either 'somewhat' or 'strongly' objected to the development proposal. The majority of respondents considered the planned power line to be an eyesore that would surround Nailsea with pylons, reduce property values, damage people's health and provide few local jobs. In particular, the study showed that respondents were mostly 'Somewhat likely' or 'Extremely likely' to agree that EMF exposure was damaging to human health. This lends support to findings by Jay (2007) that suggested some local community members engaged in a discourse advocating the precautionary principle, where the human health risks associated with EMF exposure induced objection to the proposed siting of overhead power lines near to residential areas.

Further studies (Cotton & Devine-Wright, 2011a; Devine-Wright et al., 2010) indicate that respondents consistently hold negative views of the aesthetic features of electricity pylons and also believe that overhead power lines are likely to have adverse effects upon the character of local places. This relates to research on place and project-related symbolic meanings, with symbolic references of 'industrialisation' (Devine-Wright & Devine-Wright, 2009) acting as a blight upon the perceived 'natural' settings of local communities (Devine-Wright & Howes, 2010). Devine-Wright and Devine-Wright (2009) employed

focus group discussions amongst residents of Beaulieu and Leicester (Northern UK) to explore every day thinking around the UK electricity network. It was found that residents used words and phrases such as 'monstrous', 'ugly', 'eyesores', 'an ugly scar on the landscape', to describe their views of the visual impacts of pylons and overhead power lines on each place.

In view of the aforementioned negative impacts, national government and industry actors have engaged in mitigation measures relating to the structural alteration of electricity pylons in attempts to improve their visual attractiveness and reduce likely EMF exposure. Typically, industry actors have tended to reject the option of undergrounding electricity cables on the grounds of high financial cost (National Grid, 2014). A small amount of research has investigated local public evaluations of proposed mitigation measures to reduce the visual impact of new power lines. Following a UK pylon re-design competition in 2011, a new T-shaped pylon was put forward for future large-scale grid developments. Devine-Wright and Batel (2013) utilised a questionnaire survey amongst a representative sample of UK adults (N=1519) in order to investigate public preferences for alternative pylon designs and the social and psychological factors that might explain such preferences. Findings revealed that whilst the T-shaped pylon was more strongly preferred than the traditional A-frame pylon design, other mitigation measures, such as undergrounding new lines and routing them away from homes and schools were ranked more highly as preferred options (Devine-Wright & Batel, 2013). Other empirical studies have reported high levels of respondent agreement in favour of placing power lines underground regardless of installation cost (Cotton & Devine-Wright, 2011b; Devine-Wright et al., 2010).

Positive views concerning the impacts of electricity network infrastructure are less frequently evoked. In Devine-Wright and Devine-Wright's (2009) study, respondents held positive symbolic representations of electricity pylons, viewing them as impressive, striking and dramatic. Furthermore, the electricity network as a whole was positively evaluated as an active process of electricity supply, whereby aspects of communality, connectivity and equity of access were valued.

Soini et al. (2011) showed that 10% of respondents held positive perceptions of existing transmission lines and 7% for new or proposed lines. Positive beliefs were seen to be based upon the view that transmission lines are a modern-day necessity and that route corridors have value in their potential to be used for recreational purposes. In addition, Devine-Wright's (2013a) study of public acceptance towards a proposed high-voltage overhead transmission line in South-West England showed that a small proportion of respondents (fewer than 5%) supported the proposed route corridor options for the power line. This support was most likely based on agreement with positive project impacts, including providing local jobs, helping to meet national energy policy targets, and helping to tackle climate change.

7.3 Perceptions of trust in social actors involved in the siting of energy infrastructure proposals;

Public trust in social actors (for example, in development organisations, local and national government, technical experts, and local opposition groups) has become a prominent theme in research that explores attitudes and levels of acceptance towards energy infrastructure development proposals. According to Midden and Huijts (2009), social trust refers to the feeling that individuals or social actors have positive unbiased intentions towards a trusting person or group. Otherwise stated, it can be seen to constitute a 'social emotion' that is directed towards particular social actors and constitutes a 'willingness to be vulnerable under conditions of risk and interdependence' (2009:744). When social trust is contravened, it is expected that distrust towards certain social actors may follow.

Empirical studies that explore public attitudes and acceptance of various energy-related infrastructure proposals have shown the importance of social trust in associating with (non)acceptance toward such projects (Pijawaka & Mushkatel, 1991; Lima & Castro, 2005; Lima, 2006; Midden & Huijts, 2009; Cotton & Devine-Wright, 2010; Devine-Wright & Howes, 2010; Devine-Wright, 2013a).

In the case of a waste incinerator proposal in Portugal, Lima (2006) used a questionnaire survey to capture levels of trust amongst the residents of Oporto (n=298) and Lisbon (n=451), towards local politicians, technical experts and an

environmental group. Oporto residents reporting higher levels of trust in local politicians and technical experts were seen to associate positively with favourability towards the project. Conversely, Lisbon residents reporting greater trust in the environmental group were seen to associate negatively with project acceptance.

Devine-Wright (2013a), within the context of an electricity transmission line siting proposal in S.W. England, used a Likert-type scale to gauge levels of trust amongst residents of the town of Nailsea (n=503), towards a development organisation (National Grid) and a Nailsea-based local action group ('Nailsea Against Pylons'). Findings indicated that 46% of respondents did not trust the development organisation, and 51% reported either 'a lot' or 'complete' trust in the local action group. Following hierarchical logistic regression analysis, trust in the developer National Grid emerged as a significant predictor of project acceptance. Conversely, low levels of trust in National Grid emerged as a significant predictor of project objection.

These studies suggest that greater trust in local action and environmental groups tends to associate with project objection. Conversely, trust in developer organisations tends to relate with project acceptance. There is however little research (with the exception of Devine-Wright, 2013a) that investigates associations between trust in social actors and levels of project acceptance within the context of a transmission power line proposal. In addition, the predominance of a quantitative methodology has meant that little is known about how social trust in certain actors originates and forms over time, and how it may interact with other factors such as risk perceptions and perceived benefits (as proposed by Midden and Huijts, 2009) in the context of energy infrastructure proposals.

7.4 Key limitations of research employing a project-based approach to the study of public responses to transmission power line proposals;

(1) A broad limitation of research employing project-based factors in the study of public responses toward electricity infrastructure proposals is the predominant use of quantitative-oriented survey methods. With the exception of studies by Cotton and Devine-Wright (2011a, 2011b), studies have tended to utilise questionnaire surveys in attempts to investigate the associative or

explanatory power of project-based variables (i.e. procedural justice, distributive justice, local impacts, trust in social actors) with regards levels of project acceptance, situating these project-based factors/variables at the individual intra-personal level. As a result, there is a lack of research that has adopted a qualitative methodology in order to explore in an in-depth manner the ways in which project-based factors are construed by members of a local community and how these are seen to shape responses toward energy infrastructure developments.

Whilst the above-mentioned studies are insightful, they have tended to overlook the co-construction of project-related factors and their role in influencing responses to a transmission power line proposal. Social representations theory provides a suitable analytic framework with which to advance a shift in analytic gaze toward investigating the social construction of project-based beliefs and ideas. The methodological implication of such a shift entails the adoption of a qualitative interview-based method (such as focus group interviews) that facilitates and foregrounds inter-personal communication and dialogue around project-related factors.

(2) As Devine-Wright (2013:3) indicates, prior studies that investigate factors influencing responses to energy infrastructure development proposals have tended to follow one of two explanatory pathways. One strand of research has focused on the locations where energy projects are proposed, adopting a place-based approach where NIMBY responses are 'reconceived as place-protective actions that arise when the siting of large-scale energy technologies disrupt pre-existing emotional bonds and threaten place-related identities'. A second research pathway has focused on 'project-based' aspects of the technology project and perceived fairness of the planning process.

Only one study to date (Devine-Wright, 2013a) has combined these two explanatory pathways to investigate the relative importance of both place and project-based variables in explaining stance toward a high-voltage power line proposal. Devine-Wright used hierarchical logistic regression analysis amongst a representative sample of Nailsea residents (South-West England) in order to establish the predictive significance of socio-demographic, place and project variables in explaining objections to the Hinckley Point C transmission power

line proposal. Whilst insightful, this study is limited in that it did not include varieties of non-attachment to place (place relative, place alienated and placeless) or place and project representations/meanings. Furthermore, due to the dearth of research combining these two explanatory pathways, there would be value in replicating Devine-Wright's study in order to compare the predictive significance of place and project-based factors in explaining stance toward the Hinckley Point C (HPC) power line proposal.

- In light of the limitations outlined above, a set of research aims have been developed that are seen to guide the empirical studies to follow (chapters four to six):

This thesis thus aims to employ a qualitative interview-based method (specifically focus group interviews) to explore the role of co-constructed project-based factors in shaping people's responses towards a transmission power line proposal (in chapter five).

This thesis further aims to investigate the relative importance of socio-demographic, place and project-based factors in explaining stance towards a transmission power line proposal (in chapter six).

8. Key PhD thesis research aims:

Based on key limitations of existing research identified in preceding sections of this literature review chapter (sub-sections 4.4, 5.3 and 7.4), this PhD thesis has identified a series of key research aims (the specific research questions for each empirical study can be found in section 1.6 of the introductory chapter or in sections three of each empirical study chapter). These will now be outlined below and situated within each of the three empirical study chapters to come. All three study chapters operationalise the individual socio-cognitive and socio-cultural levels of analysis inherent within social representations theory. However, certain methods were employed because they were deemed better suited to bringing to the fore a particular level of analysis over another. Whilst acknowledging both levels of analysis, study chapter one brings to the fore the individual level of analysis, whilst study two attempts to emphasise the socio-cultural level of analysis. Study chapter three encompasses both the individual

and socio-cultural levels of analysis through the use of a questionnaire survey method.

- Empirical study chapter 1;

This study chapter employs a set of 25 narrative interviews amongst residents of Nailsea in South-West England, in order to investigate people's 'life-place trajectories' and their people-place relationships to the current residence place. Whilst this method entails a predominantly individual in-depth focus, the study seeks to position individuals' life-place trajectories and place relations to the current residence place within wider social representations of place (which are seen to be both place specific and non-place specific).

This study seeks to investigate the processes underlying the dynamic (or non-dynamic) nature of people's varieties of people-place relations over the life course of individuals (their '*life-place trajectories*'), and to explore in what ways these 'life-place trajectories' inform identification with specific varieties of people-place relations and the attribution of particular place-related symbolic meanings to the current residence place. In so doing, this research will aim to confirm the presence of Hummon (1992) and Lewicka's (2011) five-partite typology of people-place relations and seek the elaboration of novel place orientations.

This study further aims to explore the ways in which particular 'life-place trajectories' (and subsequent identification with specific varieties of people-place relations and place-related symbolic meanings to the current residence place) are seen to inform experiences of and responses to a high-voltage overhead power line proposal in South-West England.

- Empirical study chapter 2:

This second empirical study chapter employs a series of five focus group interviews. Whilst narrative interviews are deemed well suited to exploring individuals personal level place relations over the life course, focus group interviews are seen as better suited to revealing the socio-cultural meanings framing people's personal people-place relations. They are also seen as well-suited to opening up the co-construction of project-based factors informing responses to the HPC power line proposal.

This second study thus seeks to investigate the ways in which social representations of relationships to place(s) generally inform individuals' personal level relations to Nailsea and the surrounding countryside (i.e. individuals' life-place trajectories and their varieties of people-place relations to the current residence place). In particular, this study aims to explore in more depth the degrees of congruence between social representations of the countryside around Nailsea and interpretations of a high-voltage power line proposal in South-West England. Furthermore, this study seeks to explore the role of co-constructed 'project-related' factors in shaping responses towards a high-voltage power line proposal.

- *Empirical study chapter 3:*

The third empirical study chapter employs a questionnaire survey study (n = 264) amongst a representative sample of Nailsea residents. The questionnaire survey includes measures situated at both at the socio-cultural level (i.e. representations of the countryside around Nailsea and representations of generalised ways of relating to place) and at the socio-psychological (i.e. measures of individuals' varieties of people-place relations, place attachment intensity, and perceptions of project-based factors concerning procedural and distributive justice).

Given the limited amount of research exploring the combined role of both place-based and project-based factors in shaping stance towards a transmission power line proposal, a central aim of this study is to investigate the relative importance of socio-demographic, place and project-related factors in shaping responses to a UK high-voltage overhead power line proposal. In particular, the study will seek to build a previous study by Devine-Wright (2013a) by including measures for varieties of non-attachment to place (place relative, place alienated and placeless), as well as place and project-related meanings (or representations).

To varying degrees, the three empirical study chapters attempt to engage with the broader research aims set out in the introductory chapter. These include, firstly, attempts to go beyond structural approaches to the study of people-place relations by adopting a dynamic approach to the study of varieties of people-place relations across the life-course of individuals (people's life-place

trajectories). Secondly, this thesis attempts to investigate and understand the role of place and project-related factors in shaping and informing people's responses to a high-voltage power line proposal in South-West England. The first of these broad research aims is pursued largely in study chapters one and two, whilst all three studies attend to the second broad research aim in slightly different ways depending on the specific research aims they seek to investigate and methods employed.

Chapter Three: The UK Electricity Grid Network

This chapter will begin by outlining the current technological and policy-oriented context of the UK electricity grid network, followed by details of the specific high-voltage over-head power line proposal dealt with in this thesis (the Hinckley Point C grid connection in South-West England), and details of the data collection location (the town of Nailsea, North Somerset, England) for all three empirical study chapters.

1. The current UK electricity grid system:

The existing UK electricity grid system consists of a centralised network of interconnected power cables, electricity pylons, sub-stations and transformers comprising approximately 7240 km of overhead and 675 km of underground transmission lines and cables, and 341 sub-stations (DECC, 2011; National Grid, 2013). The electricity system can be divided up into a number of interconnected parts (see figure 3.1):

- Sites of electricity generation from coal or oil-fired, nuclear or renewable energy power stations.
- The transmission system (See figure 3.2) comprising high-voltage (275kV and 400kV) over-head and under-ground, long-distance power lines and pylons that transmit electricity from generation sites to sub-stations. There are four separate transmission systems and transmission network operators (TNOs) in the UK, the largest of which covers transmission across England and Wales and is privately owned by National Grid Plc. The remaining three TNOs are Scottish Power Energy Networks (SPEN) and Southern and Scottish Energy (SSE), which each own part of the transmission system in Scotland, with the grid in Northern Ireland owned by Northern Ireland Electricity (NIE) (Energy Networks Association, 2014).
- The distribution system (see figure 3.3) comprising lower voltage overhead and underground power lines (11kV, 33kV, 66kV and 132kV) typically connect sub-stations to supply sites. In total there are nine independent privately-owned

distribution network operators (DNOs) operating in nine distribution system areas (Energy Networks Association, 2014).

- Sites of supply and electricity consumption where electricity is supplied to small factories, commercial and residential areas for consumption.



Figure 3.1: Diagram of the UK electricity system (National Grid, 2011).

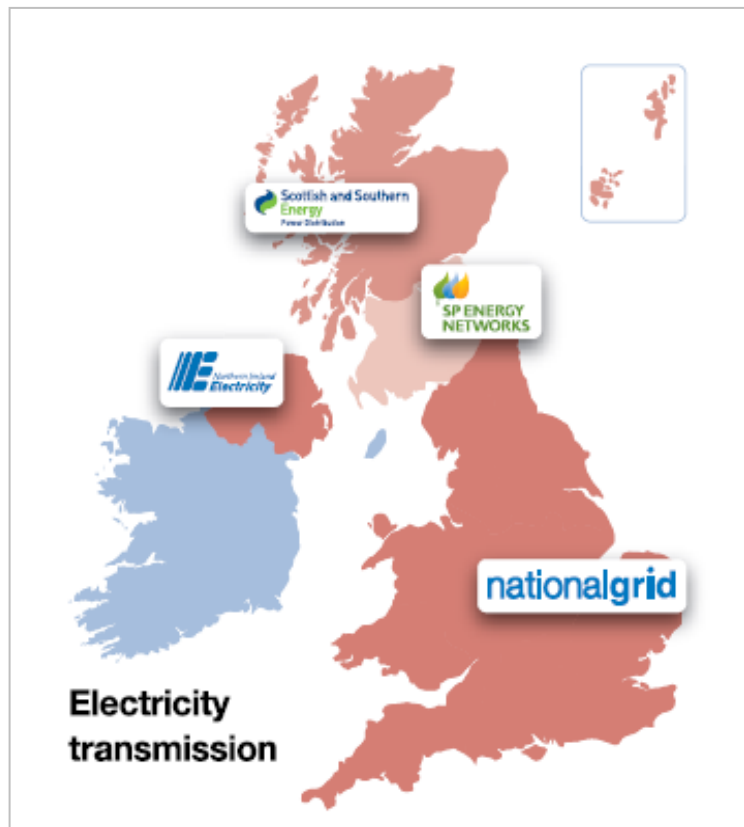


Figure 3.2: UK map showing the four transmission system areas and Transmission Network Operators (Electricity Networks Association, 2014).

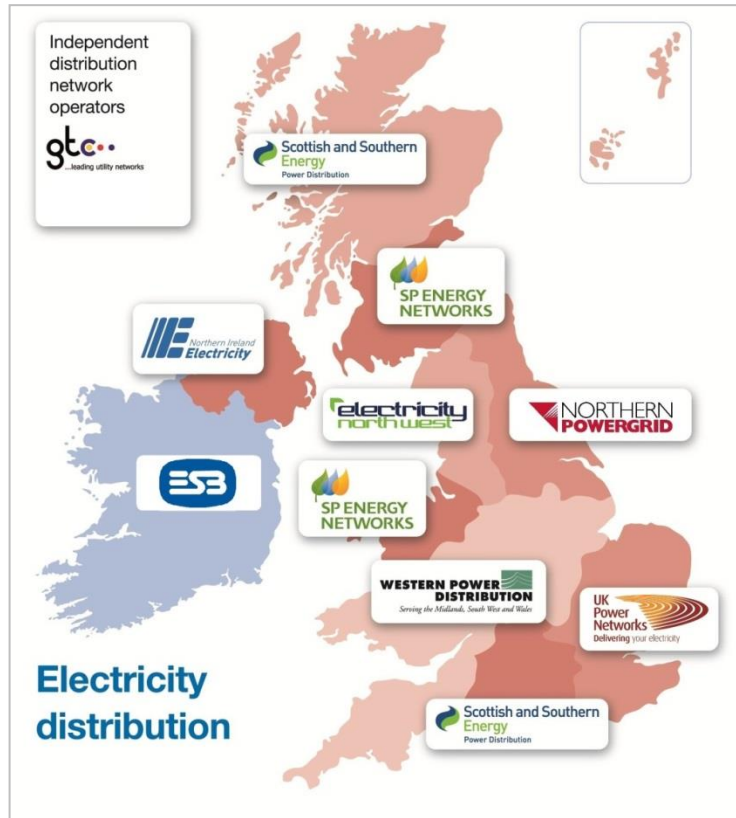


Figure 3.3: UK map showing the nine distribution system areas and Distribution Network Operators (Electricity Networks Association, 2014).

National Grid has also put in place sub-sea connections with several other nearby European countries, including the Netherlands and France, and has interconnections with Norway and Belgium currently under development. These interconnections provide greater diversity of electricity supply and help to overcome intermittency issues related with renewables (Interconnectors, National Grid, May 2014).

2. Key UK energy and electricity grid policy review:

This section will outline the key government policies that have informed developer-led energy infrastructure projects since the late 1980s.

2.1 The Electricity Act 1989;

Prior to the Electricity Act of 1989, the UK energy and electricity system was state-run by the Central Electricity Generating Board (CEGB - formed under the Electricity Act of 1957). The Electricity Act of 1989 resulted in the privatisation of the electricity supply industry in Great Britain and the founding of the Office of the gas and electricity markets (Ofgem), the government regulator and authority for electricity and natural gas markets in Great Britain. With the break-up of the state-led system, CEGB's assets were transferred to four successor companies: (1) fossil-fuelled power stations were divided between *National Power* and *PowerGen*, (2) Nuclear Power stations were transferred to *Nuclear Electric*, and (3) National Grid was transferred to the National Grid Company, now known as *National Grid plc*. (RWE npower, 2011).

The act made provision for the supply, generation and transmission of electricity and relates specifically to development consent required by developers for overhead electricity power line applications exceeding 20kV. Consents for the construction of overhead lines with a nominal voltage of less than 132 kilovolts or that are less than 2 kilometres in length (i.e. electricity distribution lines) are regulated by the Department of Energy and Climate Change (DECC) under the provisions of [section 37 of the Electricity Act 1989](#), whereas overhead lines with a nominal voltage of 132 kilovolts or greater and that are 2 kilometres or more (i.e. some distribution lines and electricity transmission lines) are regulated under the Planning Act of 2008 (Energy Infrastructure Portal, DECC, 2011). Under the 'Planning Act 2008 (Nationally Significant Infrastructure Projects)

(Electric Lines) Order of 2013, power lines of 132kV or higher but under 2km in length fall under the 1989 Electricity Act.

2.2 The Planning Act 2008;

The Planning Act of 2008 set out primary legislation geared towards speeding up the authorisation and consent process for major infrastructure developments in England, Wales and Scotland. Approximately 75% of the act relates to major infrastructure policy and decision-making, with the remaining 25% consisting of reforms of existing town and country planning processes (RTPI, 2008). The act established a number of new legislative features (Bircham Dyson Bell, 2011; Planning Act, 2008) which are outlined below.

- The Infrastructure Planning Commission (IPC) was an independent body that considered applications for Nationally Significant Infrastructure Projects (NSIPs). The Secretary of State of DECC was not able to make the final decision regarding consent for major infrastructure projects, as was the case under the electricity act of 1989, but this has since changed with the Localism Act of 2011 (Localism Act, 2011) which transferred the role of the IPC to the 'Major Infrastructure Planning Unit' (MIPU) where final decision-making power lies with the Secretary of State for Energy and Climate Change and where NSIP applications are administered by the 'Planning Inspectorate' (IPC, 2011).
- A set of twelve National Policy Statements (NPSs) which set out national policy on particular areas of national infrastructure as well as the infrastructure needed over the coming 15-20 years. There are six energy-related NPSs (EN-1 to EN-6) which relate specifically to energy infrastructure projects.
- Recognition of 'Nationally Significant Infrastructure Projects' (NSIPs) which are seen to include electricity generating stations, over-head electric power lines (above 132kV and longer than 2kms), underground gas storage, LNG facilities, gas reception facilities, gas pipelines, highways, airports, harbours, railways, rail freight interchanges, dams/reservoirs, water transfer facilities, waste water treatment plants and hazardous waste facilities.
- The formalisation of a front-loaded planning process for major infrastructure development proposals (those designated as NSIPs).

2.3 The 'EN-5 Electricity Networks Infrastructure' National Policy Statement;

The 'EN-5 Electricity Networks Infrastructure NPS' (EN-5 Electricity Networks Infrastructure NPS, DECC, 2011), is the main decision-making guidance document for the Major Infrastructure Planning Unit (formerly the IPC) concerning development consents for NSIPs in England and Wales and covers the following kinds of electricity infrastructure development proposals:

- Transmission systems (the long distance transfer of electricity through 400kV and 275kV lines), and distribution systems (lower voltage lines from 132kV to 230V from transmission substations to the end-user that are over 2km in length) which can either be carried on towers/pylons or undergrounded.
- Associated infrastructure, e.g. substations and converter stations to convert DC power to AC power and vice versa.

This National Policy Statement is also concerned with the impacts of electricity networks infrastructure with regards to potential biodiversity and geological conservation, landscape and visual, noise and vibration, Electro-Magnetic Fields (EMFs), and outlines the general principles that should be applied in the assessment of development consent applications by the Major Infrastructure Planning Unit with these elements in mind.

3. UK electricity grid development – Key government bodies and organisations:

This section will outline the key government bodies and organisations involved in the development of the UK electricity grid system.

3.1 Department of Energy and Climate Change (DECC);

The Department for Energy and Climate Change is a government department created in 2008 which brings together the climate change group which previously comprised the 'Department for Environment, Food and Rural Affairs' (Defra) and the 'Department for Business, Enterprise and Regulatory Reform' (BERR). The department has the general task of delivering secure energy supply alongside a low-carbon energy future. With regards to future electricity network development, the DECC has identified three main work streams – Network delivery and Access, Offshore Networks Development and Networks

Strategy and Regulation – as well as two main objectives – (1) to facilitate access to and investment in the onshore and offshore electricity network in order to meet UK energy needs, (2) to ensure future UK electricity network development is consistent with longer term energy goals (Energy Infrastructure Portal, DECC, 2011).

Regarding electricity grid development proposals, the DECC's role is to regulate consents for the construction of overhead power lines under the provisions of section 37 of the Electricity Act 1989. Due to legislative changes presented under the Planning Act 2008, the DECC today deals only with consent for overhead lines below 132kV and under 2km in length (Energy Infrastructure Portal, DECC, 2011).

The DECC, in collaboration with Ofgem and UK transmission network operators, commissioned a study carried out by the Electricity Networks Strategy Group (ENSG) with the general task of outlining actions needed to support the connection of new and renewable energy sources required to meet the EU target of 15% of UK energy from renewable sources by 2020 (ENSG, 2011).

3.2 Office of the Gas and Electricity Markets (Ofgem);

Ofgem is the government regulator and authority for electricity and natural gas markets in Great Britain and operates under the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998 and the Enterprise Act 2002. Its key objective is to protect the interests of consumers by promoting and regulating corporate companies that own and operate electricity and gas networks. Another of Ofgem's main priorities involves helping to secure Britain's energy supplies by promoting competitive gas and electricity markets, and regulating them so that there is adequate investment in gas and electricity networks (Ofgem, 2007).

3.3 National Grid Plc.;

National Grid is an International electricity and gas company and transmission network operator (TNO), which along with PowerGen, is one of the main electricity generating companies to have emerged in 1990 following privatisation of the UK electricity system and the breakup of the State-run Central Electricity

Generating Board (CEGB). Within the UK, National Grid Plc. owns and operates the high-voltage electricity transmission network in England and Wales and since the 1st September 2005 also operates the electricity transmission network in Scotland, although ownership is retained by Scottish and Southern Energy (SSE) and Scottish Power Energy Networks (SPEN).

National Grid is therefore responsible for the passage of electricity along the transmission network from sites of generation to sub-stations, the maintenance of the existing transmission network, development of a smart grid, as well as up-grades and development of new high-voltage power lines and electricity pylons (National Grid, 2014). In order to receive planning consent for an electricity infrastructure development, National Grid must submit an application to the Planning Inspectorate (Development Consent Order) for processing and potential approval dependent upon a number of key planning and public engagement process regulations.

Since 2008, National Grid has been working with other energy companies, the DECC and Ofgem, as part of the Electricity Networks Strategy Group (ENSG) to produce projections of future network developments to meet the 2020 renewable energy target. As part of these efforts, National Grid put forward the 2011 National Electricity Transmission System (NETS) Seven Year Statement, which presents forecasts of expected electricity demand and generation, and details existing and proposed generation projects that have a signed transmission connection agreement over the seven years from 2010/11 to 2017/18 (NETS Seven Year Statement, 2011).

3.4 The Planning Inspectorate;

Prior to the formation of the 'Major Infrastructure Planning Unit (MIPU – a sub-branch of the Planning Inspectorate), the Infrastructure Planning Commission (IPC), an independent body, examined applications for Nationally Significant Infrastructure Projects in the UK. Recent policy reform under the Localism Act 2011 rendered the IPC's role redundant. The IPC's role was transferred to the 'Major Infrastructure Planning Unit' (MIPU) which is administered by the Planning Inspectorate which examines applications for NSIPs and makes recommendations to the Secretary of State for Energy and Climate Change who

then makes the final decision on planning consent (IPC, 2011; National Infrastructure Planning, 2012).

4. The Planning Application and Consent process for over-head transmission power line developments:

National Grid, as the main owner and operator of the high-voltage electricity transmission grid in England and Wales, is currently obliged to pursue the following application procedure (See figure 3.4) for any major electricity transmission grid development proposal under the 2008 Planning Act:

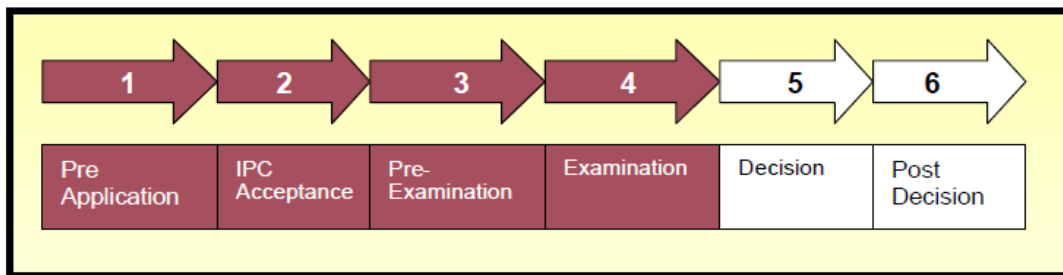


Figure 3.4: Application Process for major infrastructure development proposals (IPC, 2011).

Prior to submitting a development consent order to the Planning Inspectorate for examination, National Grid must undertake a pre-application stage which comprises front-loaded local authority and community/stakeholder consultation.

4.1 Local Authority consultation;

Under the Planning Act 2008 (Part 5, Chapter 2 – Pre-Application Procedure), National Grid is obliged in a first instance, to consult with relevant local authorities when engaging in development proposals for major electricity network infrastructure. The knowledge that local authorities possess concerning socio-economic, cultural and historical characteristics of a locality is highly pertinent to the developer's formulation of a pre-application community consultation plan, as it may influence decisions relating to the geographical extent of consultation and the methods that will be most effective in particular local circumstances (IPC Guidance note on pre-application stages, 29th March 2010).

Having consulted the relevant local authorities, the developer must prepare a 'Statement of Community Consultation' (SoCC) which describes how the developer plans to consult the local community about their proposal. The local community or 'consultation catchment area' decided upon should comprise 'people living in the vicinity of the land' (Planning Act, 2008: s47(1)) – to this extent a developer should 'aim to capture the views of those who work in or otherwise use the area, as well as those who live there (for example consulting small businesses, leisure users, and other groups as appropriate to the area in question)', (Guidance on pre-application consultation, Department for Communities and Local Government, 2009: s50, pp.13). The SoCC is then published and circulated in a local newspaper and informs subsequent community and stakeholder consultation.

4.2 Community and Stakeholder Consultation;

Under the Planning Act 2008 (Part 5, Chapter 2 – Pre-Application Procedure), National Grid has a legal duty to consult and engage with local communities and stakeholders when engaging in development proposals for major electricity network infrastructure (people who fall under this consultation process are outlined in the 'catchment consultation area' as discussed above). This is undertaken in accordance with the Statement of Community Consultation previously formulated through required deliberation with relevant local authorities.

National Grid must provide local communities and stakeholders with legitimate opportunities to be informed and express their views and opinions towards a development proposal. Consultation must therefore happen at an early enough stage in the developer's pre-application stage, so as to give those consulted the time and ability to fully understand and influence a proposal. The Planning Act provides for a minimum of 28 days for consultation, though for larger or more controversial development projects there is expected to be a longer consultation period, involving a 'phased' consultation process consisting of two or more stages (Guidance on pre-application consultation, Department for Communities and Local Government, 2009: pp.17/18).

Based on the SoCC, a short document is prepared by a developer which outlines the key aims and objectives of the proposal, presents what the potential

impacts of the proposal might be, and outlines the matters on which the view of the local community is sought. This document would also state where and when consultation events would be taking place, where a full set of consultation documents can be examined locally, and state the date by which responses to the consultation stages are to be received (Guidance on pre-application consultation, Department for Communities and Local Government, 2009: s83-85).

National Grid's community and stakeholder consultation policy document (2010:4) outlines the following general principles in order to meet consultation requirements;

- 'Seek to identify and understand the views of and opinions of all stakeholders and communities who may be affected by our works'.
- 'Provide opportunities for engagement from the early stages of the process, where options and alternatives are being considered and there is the greatest scope to influence the design of the works'.
- 'Endeavour to enable constructive debate to take place, creating open and two-way communication processes'.
- 'Ensure that benefits, constraints and adverse impacts of proposed works are communicated openly for meaningful stakeholder and community comment and discussion'.
- 'Utilise appropriate methods and effort in engaging stakeholders and communities, proportionate to the scale and impact of the works'.
- 'Provide feedback on how views expressed have been considered and the outcomes of any engagement process or activity'.

Following the community and stakeholder consultation process, National Grid Plc. is required, under section 37 of the Planning Act 2008, to produce a consultation report which provides a general description of the consultation process and sets out how the developer complied with the Planning Act. Furthermore, the report presents the following (Guidance on pre-application consultation, Department for Communities and Local Government, 2009);

- A summary of the relevant community and stakeholder responses to the consultation process.
- A description of how the application was influenced by those responses, outlining any changes made as a result and showing how significant relevant responses will be addressed.
- Provides an explanation as to why any significant relevant responses were not followed.
- Provides feedback to those who contributed to the consultation process, informing them of the results of the process and how responses contributed to the shaping of the development proposal.

5. National Grid's Amenity Responsibilities:

5.1 The 'Holford' rules;

The 'Holford Rules' (National Grid, 2011b) provide a substantial basis to National Grid's decisions on the routing of new overhead electricity transmission power lines, and consist of measures aimed at reducing the visual impact of such developments and maintaining the amenity value of surrounding areas. The most pertinent rules relating to visual impact are as follows;

- Rule 3: 'All things being equal, choose the most direct line, with no sharp changes of direction and thus with fewer angle towers' (it is unlikely, however, that angle towers will continue to be used in electricity transmission power-line developments due to future use of the new T-shaped electricity pylon, which was selected amongst 5 other short-listed designs as part of a government sponsored electricity pylon design competition held in 2011 – see below for further details).
- Rule 4: 'Choose tree and hill backgrounds in preference to sky backgrounds wherever possible; and when the line has to cross a ridge, secure this opaque background as long as possible and cross obliquely when a dip in the ridge provides an opportunity. Where it does not, cross directly, preferably between belts of trees'.

- Rule 5: 'Prefer moderately open valleys with woods where the apparent height of towers will be reduced, and views of the line will be broken by trees'.
- Rule 6: 'In country which is flat and sparsely planted, keep the high voltage lines as far as possible independent of smaller lines, converging routes, distribution poles and other masts, wires and cables, so as to avoid a concentration or 'wirescape'.
- Rule 7: 'Approach urban area through industrial zones, where they exist; and when pleasant residential and recreational land intervenes between the approach line and the substation, go carefully into the comparative costs of the undergrounding, for lines other than those of the highest voltage'.

5.2 The UK Pylon design competition;

In May of 2011, the DECC and National Grid launched a competition (run by the Royal Institute of British Architects [RIBA]) for architects, designers, engineers and students of these disciplines to come up with new and innovative designs for a next generation of electricity pylons. Existing pylons in the UK are based on the steel lattice tower design which has remained unchanged since the 1920s (DECC, 2012).

Applicants were invited to submit pylon designs to RIBA on the 12th July 2011 (stage 1). At least one image of the new pylon design was required to be set within a prescribed image of rural countryside and applicants were advised to consider the Holford Rules in both their designs and siting of the pylons. To this end, taking into account the visual impact of the new pylon designs was set as a main priority by the competition organisers. Assessment of designs was undertaken by a Jury Panel consisting RIBA advisors, government and developer representatives.

The assessment criteria for stage 1 designs was broken down into three main sections; (1) Design Quality (40%) – appearance, creative response and quality and clarity of presentation, (2) Response to and understanding of brief (40%) – construction approach, technical viability, functionality and practicality, and (3) Philosophy and Approach (20%) – design philosophy. Following assessment of stage 1 entries, a set of six shortlisted designs were selected by the Jury and technical assessment panel. The shortlisted applicants were then invited to

submit a stage 2 application on the 5th September 2011, followed by a short period of public consultation and technical appraisal (RIBA, 2011).

The winning design was announced on the 10th October 2011. The selected design (see figure 3.5) was a 'T-shaped' pylon put forward by Danish engineering firm Bystrup. In contrast to conventional electricity transmission pylons which stand at over 50 metres (165ft) and weigh approximately 30 tonnes, Bystrup's T-shaped pylon design will stand at just 32 metres (105ft) and weigh approximately 20 tonnes, which is a much shorter and potentially less intrusive design with a reduced magnetic field. It has also been suggested that the new pylon design could be coloured in order to blend in more effectively with the surrounding landscape (BBC News, 14th October 2011). This competition clearly attempts to respond to challenges relating to perceived public health hazards of EMFs and to the negative visual impact and acceptability of existing and projected electricity transmission pylons – both issues have fuelled controversy within local communities over the siting of high-voltage electricity transmission grid development proposals in the UK.

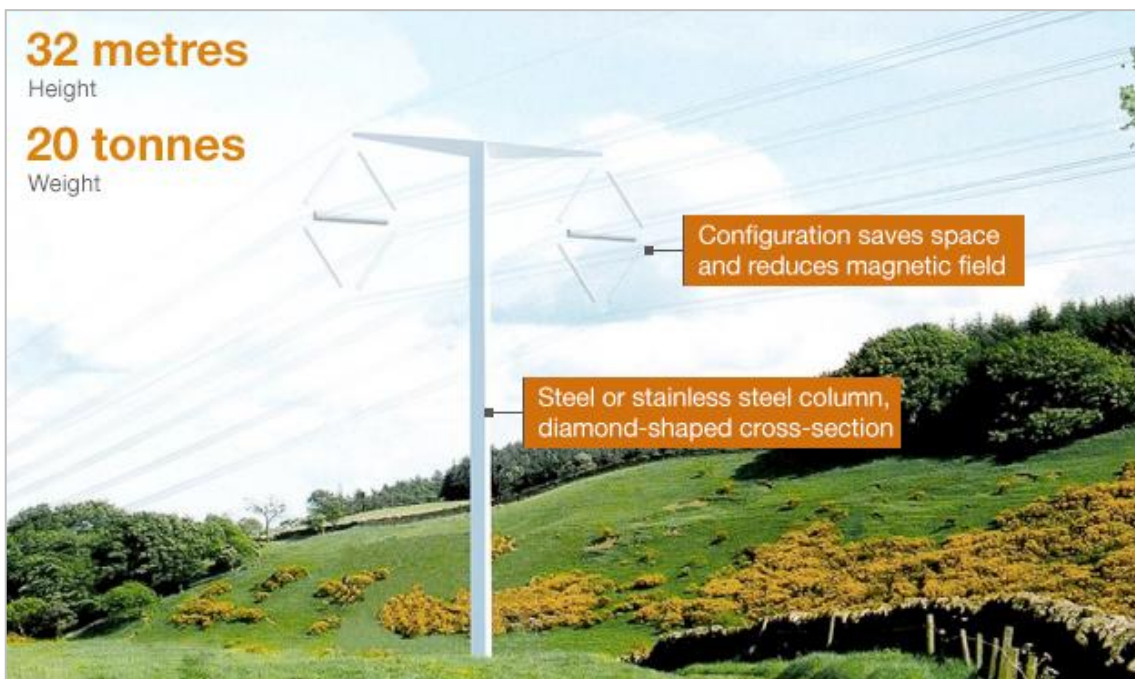


Figure 3.5: Bystrup's winning 'T-shaped' electricity pylon design (BBC News, 14th October 2011).

5.3 *Electro-Magnetic Fields (EMFs);*

Overhead electricity transmission lines emit electro-magnetic fields (EMFs) and are typically measured in microteslas (μT). One of the most serious proposed health risks stems from a number of epidemiological studies that have suggested an association between the incidence of childhood leukaemia and the proximity of homes to power-lines and subsequent EMF exposure (Ahlbom et al., 2000; Greenland et al., 2000).

In response to the potential health risks associated with EMF exposure from multiple sources (house wiring, electrical appliances and power lines), the International Commission on Non-Ionising Radiation Protection (ICNIRP, 1998) set exposure limits for public exposure at $100\mu\text{T}$ for magnetic fields and 5kV/m for electric fields. In addition, the Stakeholder Advisory Group on EMFs (SAGE) (SAGE, First Interim Assessment, 2007) outlined a series of precautionary advice for the UK government based specifically on EMFs emanating from high-voltage overhead power lines. These are as follows:

Recommendation 1: ‘...that more information be provided to members of the public about exposure and the actions they could take themselves to reduce exposures if they wished’ (2007, pp.45).

Recommendation 2: ‘...that electricity companies be encouraged to choose the optimal phasing (usually transposed phasing) for all new lines, and also be encouraged to convert existing lines where possible and justifiable (2007: pp.46). ‘Transposed’ or ‘optimal’ phasing results in lower electro-magnetic fields.

Recommendation 3: Proposes introducing corridors around power lines within which new buildings would not be allowed. The corridor would be 60 metres from the centre of the power line for 400kV and 275kV transmission lines, which would allow the electro-magnetic field to fall below $0.4\mu\text{T}$.

Whilst SAGE proposes a 60 metre building exclusion corridor from the centre of a 275 or 400kV transmission power line, neither the UK Government nor the Health Protection Agency (HPA) recommend applying such restrictions. In addition, National Grid Plc., based on advice from the government and HPA,

does not apply restrictions on EMF grounds when building close to overhead power lines (National Grid, 2014; DECC, 2012a).

6. The Hinckley Point C (HPC) grid connection, South-West England:

The Hinckley Point C grid connection is a proposal by National Grid to construct a new 400kV over-head transmission line (of approximately 60km) to connect a proposed new nuclear power station at Hinckley Point, in Somerset, to the existing electricity network near Seabank by 2019 (National Grid, 2014). As the main owner and operator of the electricity grid system in England and Wales, National Grid is obliged to pursue the planning application process outlined in the Planning Act 2008. From 2009 to the start of 2014, National Grid was engaged in the development of siting places and consultation. The planning application was submitted by mid-2014 and is currently being examined by the Planning Inspectorate. A final decision on planning consent will be made by the end of 2015. If planning consent is granted, construction will take place from 2016 to 2022.

Prior to submitting an application to the MIPU, National Grid must undertake the pre-application stage which comprises local authority as well as community and stakeholder consultation. From the period 2009 to 2013, National Grid undertook three phases of community public consultation.

Phase one was undertaken from October 2009 to January 2010 and was designed to consult locally affected communities and residents on two overhead broad route corridor options put forward by National Grid. Option one involved decommissioning an existing 132kV power line running between Bridgewater and Seabank, and adopting the same route for the new 400kV power line. Option two involved keeping the existing 132kV overhead line and building the proposed 400kV line in parallel (Project Leaflet, National Grid, 2009). Two consultation zones were defined, with the first extending at least 1km either side of the broad route corridor, and zone 2 encompassing those households more than 1km from the broad route corridor. Households in both zones were provided with summary postal leaflets by post and public exhibitions were undertaken in locally-affected towns and villages. Following a review of consultation feedback, a preferred route corridor was announced by National Grid in September 2011. This comprised corridor option one, with the adoption

of corridor option two between Hersey and Woolavington near Bridgewater, and between Tickenham Ridge and Portishead (Preferred Connection Option, National Grid, September 2011).

Phase two public consultation was conducted from November to December 2012 and was designed to consult on a draft proposal for the detailed routing and siting of the chosen route corridor. This involved the same zoning approach as the first phase with the inclusion of thematic groups, community forums and information hubs in town and village centres (Stage 3 Consultation Strategy Update, National Grid, October 2012). Following review of phase two public consultation, National Grid announced proposals for the detailed routing and siting of the power line. This included the following: (1) Undergrounding just over 8km of the new power line through and either side of the Mendip Hills in Somerset; (2) Removing an existing 132kV power line that follows a similar route to the proposed power line; (3) Undergrounding part of another existing 132kV power line between Nailsea and Portishead (Spring Project News, National Grid, 2013).

Phase three comprised statutory consultation in line with the Planning Act 2008 and was held between the 3rd September and 29th October 2013. National Grid consulted local communities on the proposed application using a project update newsletter, public events, Q&A sessions and information hubs in town and village centres (Stage 4 Consultation Strategy, National Grid, August 2013). Minor changes were made to the route of the proposed overhead power line in the Southwick area, Somerset. National Grid submitted a Development Consent Order (DCO) to the Planning Inspectorate on the 28th May 2014 which was accepted for examination on 19th June 2014.

The Hinckley Point C connection project formed the key transmission line proposal case to this PhD thesis.

7. Data collection site – Nailsea, North Somerset, South-West England:

Nailsea is a small town in Somerset with a population of 17,649 people (UK Census Data, mid-2010) which lies approximately 8 miles South-West of Bristol. National Grid's preferred route corridor will result in the potential construction of the new power line to the North-West of the town, replacing an existing 132kV

line (see figure 3.6). The Hinckley Point C power line proposal proved instantly controversial in Nailsea, where a local action group called ‘Save Our Valley’ (Save Our Valley, 2009), now ‘Nailsea Against Pylons’ was set up in 2009 to oppose the project and push for undergrounding of the line. The ‘Save Our Valley’ group used country walks, public meetings, a newsletter and a website to engage Nailsea and Backwell residents about the proposal. The group encouraged residents to undertake a number of actions to actively oppose the power line. These included writing letters to National Grid, completing an on-line consultation form on National Grid’s website, writing to North Somerset MP Dr Liam Fox, writing to Nailsea and Backwell parish/town council and attending National Grid public exhibition and consultation events.

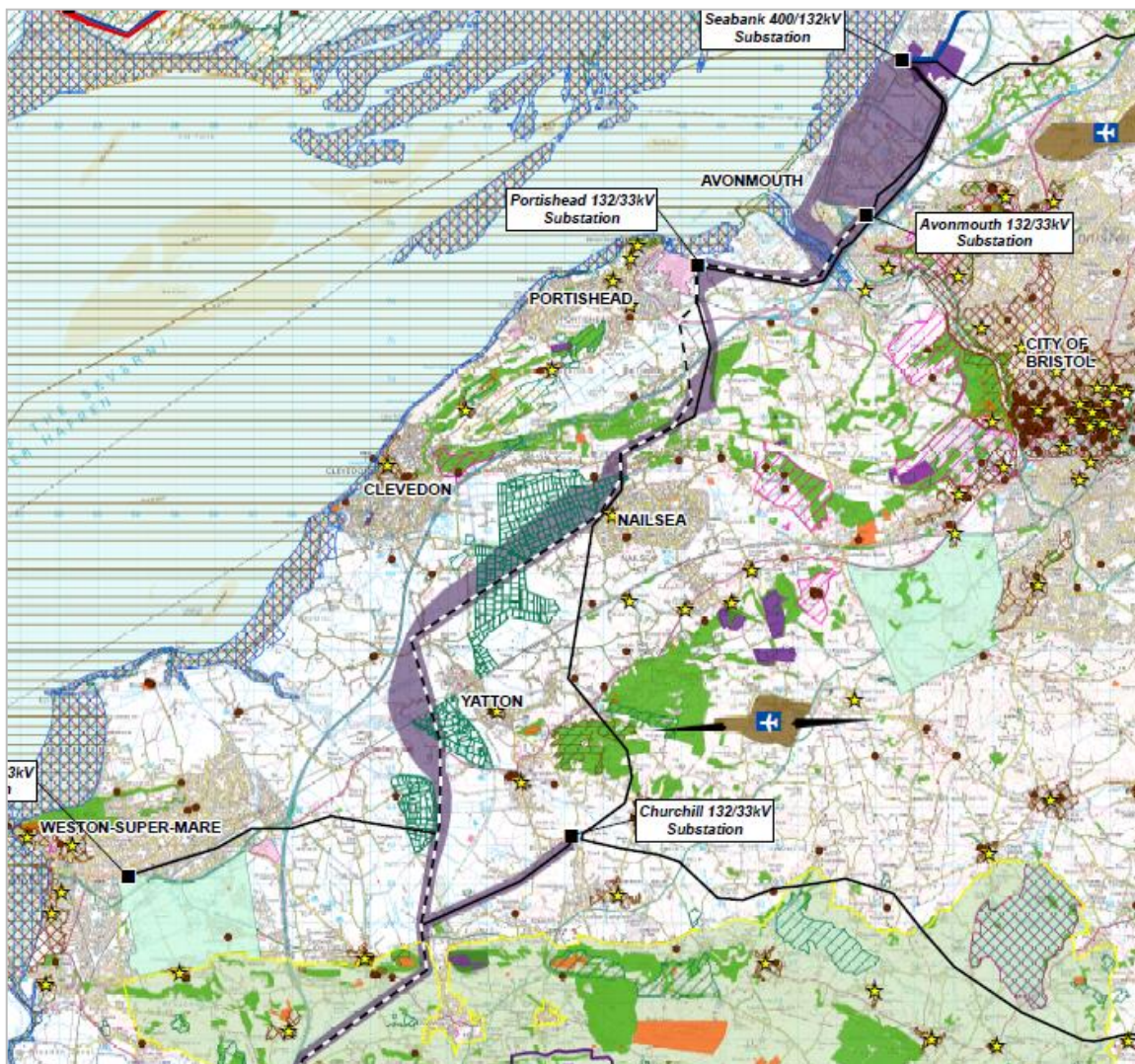


Figure 3.6: Map of National Grid’s preferred route corridor (purple shading) and the town of Nailsea in the centre (National Grid, 2010).

Nailsea was chosen as the selected community and place for undertaking studies one to three. The town of Nailsea, within the wider context of the Hinckley Point C power line proposal, was selected firstly for practical reasons – the town is close to Exeter and this facilitated site visits whilst reducing costs incurred by travelling to and from Nailsea. Secondly, a number of past empirical studies have been undertaken with Nailsea as a case study (Cotton & Devine-Wright, 2010; Devine-Wright, 2013a). Devine-Wright's (2013a) paper is particularly relevant as it captures the two forms of active attachment identified by Lewicka (2011b) and establishes their significance in predicting public acceptance to the power line. This therefore affords the possibility of comparing and building on research across studies over part of the life course of the HPC project proposal.

Chapter Four: Varieties of people-place relations across the life course informing responses to the HPC power line proposal – a narrative interview study

1. Introduction:

With a projected increase in electricity demand and low-carbon energy generation, the increased deployment of the existing UK electricity network is foreseeable. Opposition to locally sited infrastructure proposals has often been cast pejoratively using the NIMBY (Not In My Back Yard) concept, whereby opponents are labelled as selfish, ignorant or irrational individuals, and where siting locations are reduced to mere 'coordinates in universal space' (Drenthen, 2010:322) or controversial backyards (Devine-Wright, 2011c).

In response to these critiques, Devine-Wright (2009) posits a place-based approach, highlighting the roles of place attachment and place-related symbolic meanings in shaping individual and collective responses to energy infrastructure proposals. NIMBY type opposition is re-cast as *place-protective action* with locally affected communities seen to actively resist siting projects due to the threat or disruption posed to existing place bonds. To date, there remains a relative dearth of research that adopts a place-based approach to understanding responses to a transmission power line development proposal. In addition, there is a lack of research investigating the changing nature of people's varieties of people-place relations across the life course of individuals (life-place trajectories).

This empirical study chapter presents and discusses findings from a set of 25 narrative interviews that sought to unite these two research gaps by attempting to investigate two broad research aims. In a first instance, this study sought to elucidate people's 'life-place trajectories' (the temporal, dynamic and process-oriented nature of people's place relations over the life course) and the processes underlying these trajectories. In a second instance, the study sought to explore the ways in which life-place trajectories inform people's place relations to the current residence place (Nailsea, North Somerset) and contribute to a better understanding of the ways in which people experience and respond to a high-voltage transmission power line proposal (the Hinckley Point C power line proposal). These research aims will be outlined in more detail in

section three of this chapter and will be situated within the following summarised literature review.

2. Critical literature review:

This section will comprise a summarised critical literature review of existing research on people-place relations, highlighting the limitations of structural approaches to the study of place attachment and varieties of people-place relations, as well as the limitations inherent within research adopting a place-based approach to understanding public responses to energy infrastructure development proposals. Recognition of particular research gaps will inform the subsequent research aims and related questions in section 3 of this chapter.

2.1 Moving beyond structural approaches to the study of people-place relations;

To date, research on place attachment (and related concepts such as varieties of people-place relations, place identity and place-related meanings) has tended to focus on unearthing qualities of the product, rather than the process(es) that guide attachment or detachment to place(s). Studies have subsequently adopted 'structural' approaches to the theoretical development of the concept, using both qualitative and quantitative-based cross-sectional research designs to capture intensity, predictors and types of place attachment at one particular point in time (Lewicka, 2011a; Devine-Wright, 2014).

Whilst highly insightful, this structural approach is limited to the extent that it says little about the dynamic nature of people's place attachments or varieties of people-place relations over time, and the underlying processes contributing to attachment or detachment from place(s). A number of studies have, however, attempted to examine the effects of changes to people and changes to places upon place attachment dynamics (Devine-Wright, 2014). Researchers have explored stages of place attachment formation at different life stages (Hay, 1998), the role of residential mobility in informing the process of attachment to place (Gustafson, 2001), and place attachment formation amongst relocating individuals maintaining continuity across settlement type and identity (Feldman, 1990; Fried, 2000; Twigger-Ross & Uzzell, 1996). Others have investigated disruptions to place attachment in contexts of place change (Brown & Perkins, 1992; Devine-Wright, 2009), and the roles of nostalgia and solastalgia ('Pain or

distress caused by the loss of, or inability to derive solace connected to the negatively perceived state of one's home environment', Albrecht et al., 2007) in hindering or facilitating attachment to place(s) has also received some attention (Fullilove, 2014; Lewicka, 2014; Savage et al, 2005). See the literature review chapter for a more in-depth review of this literature.

Whilst the aforementioned studies foreground change and dynamics of attachment and detachment to place(s), there is a lack of research that investigates the dynamic nature of intensity of place attachment and varieties of people-place relations across the life course (Devine-Wright, 2014). There is subsequently no research that investigates people's '*life-place trajectories*' – that is to say, the dynamic nature of intensity of place attachment and varieties of people-place relations across the life course of individuals – and the ways in which these trajectories inform people's place relations to the current residence place (i.e. their varieties of people-place relations and place-based meanings). Section 3 of this chapter ('Research aims and related questions') outlines the first set of research aims and questions stemming from the above-mentioned limitations of structural based research into people-place relations.

2.2 Understanding public responses to energy infrastructure proposals through the lens of people's life-place trajectories;

Studies employing a place-based approach to understanding local responses to energy infrastructure development proposals have employed quantitative and qualitative methods to examine associations between intensity or varieties of place attachment and levels of social acceptance toward infrastructure proposals (Vorkinn & Riese, 2001; Devine-Wright, 2013a), as well as congruence between place-related symbolic meanings and interpretations of energy infrastructure proposals (Devine-Wright & Howes, 2010; McLachlan, 2009; Venables et al, 2012; Anderson, 2013; Devine-Wright & Batel, 2013). See the literature review chapter for a more in-depth review of these studies.

Whilst these studies are insightful, they are not overly sensitive to qualitative accounts of the disruptive, threatening, or enhancing effects of proposed place change upon people's varieties of people-place relations and place-based meanings. As a further consequence, *little is known as to how particular life-place trajectories might inform Nailsea residents' experiences of and responses*

towards a transmission power line proposal. People's life-place trajectories are likely to shape the ways in which people relate emotionally and ascribe particular meanings to their current residence place. This in turn may inform experiences of place disruption or enhancement (a negative or positive impact upon people's varieties of people-place relations), and congruence between place and project-related symbolic meanings, in the face of a proposed transmission power line project, thus shaping responses to such a development (i.e. acceptance, opposition).

Whilst congruency between place and project-related symbolic meanings has been the subject of investigation within studies relating to renewable energy projects, there is little research (with the exception of a study by Cotton & Devine-Wright, 2013) that explores perceived fit between place and project-related symbolic meanings within the context of a transmission power line proposal. Section 3 of this chapter ('Research aims and related questions') outlines the second key set of research aims and related questions that stem from the above-mentioned limitations of current studies on public responses to energy and electricity infrastructure development proposals.

3. Research aims and related questions:

With the use of a narrative-based interview methodology, this study seeks, in a first instance, to investigate the patterns of people's identification with varieties of people-place relations across the life course (termed 'narrative themes' or 'life-place trajectories'), the processes informing or underlying these life-place trajectories, and the ways in which they are seen to inform identification with specific types of people-place relation and place-related symbolic meanings to the current residence place (Nailsea and the surrounding countryside). In so doing, the study further seeks to confirm Hummon (1992) and Lewicka's (2011) existing typology of people-place relations and attempts to reveal novel varieties of place orientations. These research aims are broken down into four distinct aims and related research questions that can be observed below.

It should be noted - in light of the adoption of a social representations theoretical framework - that participants' personal life-place trajectories and varieties of people-place relations to Nailsea and the surrounding countryside are seen to be situated and embedded within social representations of place

(those relating to Nailsea and the surrounding countryside, as well as places generally) and social representations of ways of relating to place generally. An important part of the analysis of narrative interview transcripts thus involves sensitivity to the ways in which people participants draw upon such social representations - through, for example, the use of metaphor and idiomatic devices that are shared across groups and English society - in order to situate and legitimate their own personal life-place trajectories and varieties of people-place relations.

Research aim 1:

To confirm the presence of Hummon (1992) and Lewicka's (2011a) typology of people-place relations and reveal novel place orientations.

- Can the typology of people-place relations be replicated amongst a sample of Nailsea residents and are there novel varieties in evidence?

Research aim 2:

To investigate the dynamic (or non dynamic) nature of varieties of people-place relations over the life course of Nailsea residents (their 'life-place trajectories'), and whether particular patterns emerge across interview participants.

- What patterns emerge with regards to Nailsea residents' identification with varieties of people-place relations across residence places and over the life course?

Research aim 3:

To elucidate processes that may underlie people's life-place trajectories.

- What processes might underlie the life-place trajectories of Nailsea residents?

Research aim 4:

To explore how these patterns (or 'life-place trajectories') are seen to inform identification with specific varieties of people-place relations and place-related symbolic meanings to the current residence place.

- How do the life-place trajectories of Nailsea residents inform their identification with varieties of people-place relations and their elaboration of symbolic meanings attributed to Nailsea and the nearby countryside?

In a second instance, this study aims to explore the ways in which particular 'life-place trajectories' (and subsequent identification with specific varieties of people-place relations and place-related symbolic meanings to Nailsea and the surrounding countryside) are seen to inform experiences of and responses to a high-voltage over-head power line proposal. In particular, this research aims to explore the symbolic meanings (or social representations) ascribed to Nailsea and the surrounding countryside and their perceived congruence with objectified social representations of the Hinckley Point C power line proposal. These research aims are broken down into two distinct aims and related research questions that can be observed below.

Research aim 5:

To explore the ways in which particular life-place trajectories (and subsequent identification with varieties of people-place relations and symbolic meanings to Nailsea and surrounding countryside) inform experiences of and responses to the Hinckley Point C power line proposal.

- In what ways might people's life-place trajectories inform their experiences of and responses to the HPC power line proposal?

Research aim 6:

To investigate the social representations ascribed to Nailsea and the surrounding countryside and their perceived congruence with social representations of the Hinckley Point C transmission grid project.

- How is the HPC power line proposal represented, and to what extent are these representations congruent with divergent representations of Nailsea and surrounding countryside areas?

4. Methodology:

4.1 *Narrative Inquiry*;

According to Creswell (2007), narrative can be understood as both a phenomenon – a way of thinking and talking that frames human experience(s) of the world (Jovchelovitch & Bauer, 2000; Riessman, 2008) – and as a research approach or method that has the elicitation of narratives as the main object of study (Clandinin and Connelly, 2000, 2007). Clandinin and Connelly (2000:50) propose that undertaking narrative inquiry involves acknowledging the ‘*3-dimensional narrative inquiry space*’ that frames people’s life experiences and narratives. This framework comprises the personal/social, temporal and place dimensions and provides four directions of movement situated within place – inward (personal) and outward (social), backwards (past) and forwards (future).

The aforementioned research aims can be positioned within this narrative inquiry space, with a focus upon individuals’ experiences and relationships to place(s) through time (life-place trajectories), and with sensitivity given to the intersections between the personal and the social. In applying this multi-level framework to the study of individuals people-place relations, narrative interviews open up the possibility of exploring individuals’ place relations across the life course, whilst acknowledging that people’s life-place trajectories are embedded within and informed by the influencing role of *socio-cultural meanings (or social representations) relating to types of place (e.g. a City or semi-rural type of place), to particular features of place (which can be both place specific and non-place specific), and to divergent generalised relationships with place over the life course (i.e. a kind of person who is rooted versus the kind of person that is non-rooted to place generally).*

The process of symbolic coping implicit in social representations theory will also be brought to the fore in the findings and discussion section of this chapter, by exploring the ways in which socially shared metaphors, similes and idiomatic expressions - concerning ways of relating to the residence place and ways of characterising the proposed power line proposal – are drawn upon by participants to situate their own personal relations (i.e. their life-place trajectories and varieties of people-place relations) to the residence place and

to situate the proposed power line in relation to surrounding countryside areas. In particular, ways of objectifying the proposed power line as 'industrial' or 'familiar' will be explored in view of existing representations of surrounding countryside areas (i.e. as 'natural' or as 'replete with existing electricity infrastructure').

4.2 *The Narrative Interview;*

The narrative interview is considered a form of unstructured, in-depth interview where the researcher aims to elicit a less imposed rendering of an informant's narrative account through encouraging the development of a 'self-generating schema' (Jovchelovitch and Bauer, 2000:61). The narrative interview is motivated by a critique of the 'question-response schema' employed in semi-structured and structured interviews, which is seen to disrupt the self-generating narrative schema by imposing thematic structure and an ordering of questions to the interview process. In order to facilitate the elicitation of an informant's self-generating narrative schema, it is advised that the interviewer 'give up control' of the interview process in order to allow informants to follow their own narrative 'trails' and to encourage 'power-sharing' between informant and interviewee (Riessman, 2008). The use of simple, open-ended questions that relate clearly to the informant's life experiences and the ability to be a good listener and avoid interrupting an informant's narrative account are deemed essential to facilitating the elicitation of narrative accounts during the interview process (Elliott, 2005:29).

Whilst there is no prescribed approach to conducting a narrative interview, Schutze (Bauer & Gaskell, 2000) proposes the following five steps: (1) *Preparation* – exploring the field and formulating research questions that reflect the interests of the researcher; (2) *Initiation* – the introduction of the central topic to trigger an interview participant's narrative account (*recording starts*); (3) *Main narration* – the informant completes the process of narration. Minimal interruption or interference by the researcher should occur at this stage; (4) *Questioning phase* – as the narration comes to a 'natural' end, the researcher can ask questions resembling the language of the informant; (5) *Concluding talk* - the researcher and informant engage in conversation once the narration is

complete and recording has stopped with the aim of talking in a relaxed mood and shedding light on more formal accounts provided during the narration.

Limitations and difficulties associated with the narrative interview are highlighted by a number of authors. In a first instance, it is quite possible that informants may resist the researcher's attempts to elicit an initial narrative account, instead, offering stilted summarised accounts of life experiences and events and thus curtailing the generation of a 'narrative schema'. This type of participant response may be due to lack of trust in the interviewer, a lack of familiarity with the research topic, and a difficulty with being asked about a very wide time frame (Elliot, 2005). Elliot (2005) therefore proposes the use of 'Life History Grids' to assist in the task of ordering life experiences and events prior to the interview, thus facilitating the elicitation of oral narrative accounts by the researcher.

In a second instance, it is suggested that the desire to elicit an uninterrupted narrative schema or account places restrictive and unrealistic rules upon the interviewer and interviewing process. Critics of the narrative interview argue that this is an 'ideal-type' procedure which may only rarely be accomplished. In practice, it is suggested that the narrative interview often requires a compromise between 'narrative' and 'question-response schemas (Jovchelovitch & Bauer, 2000).

In light of both Schutze's proposed steps for conducting a narrative interview and the two limitations identified above, the narrative interview procedure for this study involved the following measures:

The use of a novel pre-interview '*Place History Grid*' which focused on people's changing experiences of places over time and encouraged participants to chronologically chart the places they had resided in over their lifetimes and their memories of experiences and feelings towards those places (use of the 'place history grid' is discussed in more detail further on in this methodology section.

The use of Schutze's (Bauer & Gaskell, 2000) proposed preparation, initiation and main narration steps for undertaking a narrative interview. Preparation involved the elaboration of an interview guide that included a number of themes and related broad questions to encourage the generation of narrative accounts

by participants. The initiation stage introduced the main topics of interest and began by encouraging interview participants to think back to the earliest memories they had of living in a particular place and the feelings they associated with those locations. The main narration stage then ensued and interview participants were given space to engage in a series of narrative schemas, with minimal interruption by the interviewer. The questioning phase was included into the main narration stage since it was deemed impractical to ask a series probing questions at the very end of the interview. The interviews thus met a compromise between the narrative and question-response schema and attempts were made to minimise the intrusion of probing questions upon participants' narrative accounts. Concluding talk occurred naturally at the end of most interviews and in certain cases notes were taken when an interview participant discussed something of relevance to the study aims.

The narrative interview is a relatively unstructured interview format that incorporates a temporal dimension to the interview design and involves the elicitation of people's storied narrative accounts of personal and socially-oriented experiences in place. Narrative interviews are thus deemed well-suited to investigating the dynamic (or non-dynamic) nature of varieties of people-place relations over the life course (people's 'life-place trajectories'), to exploring how particular life-place trajectories inform people's place orientations and place-related meanings to the current residence place, and to investigating the ways in which particular life-place trajectories might shape responses towards the HPC power line proposal.

Narrative interviews have been considered as a particularly useful method in the study of social representations (Jovchelovitch, 1995; Laszlo, 1997). For example, Wagner et al (1999) undertook a study investigating social representations about the public sphere in Brazil. Using narrative interviews, the Brazilian public sphere was seen to comprise a 'representational field' marked by notions of fear, threat and individualism in the street and corruption, self-interest and individualism in politics.

4.3 The narrative interview procedure;

The narrative interview and data collection process comprised the following steps illustrated below (figure 4.1).

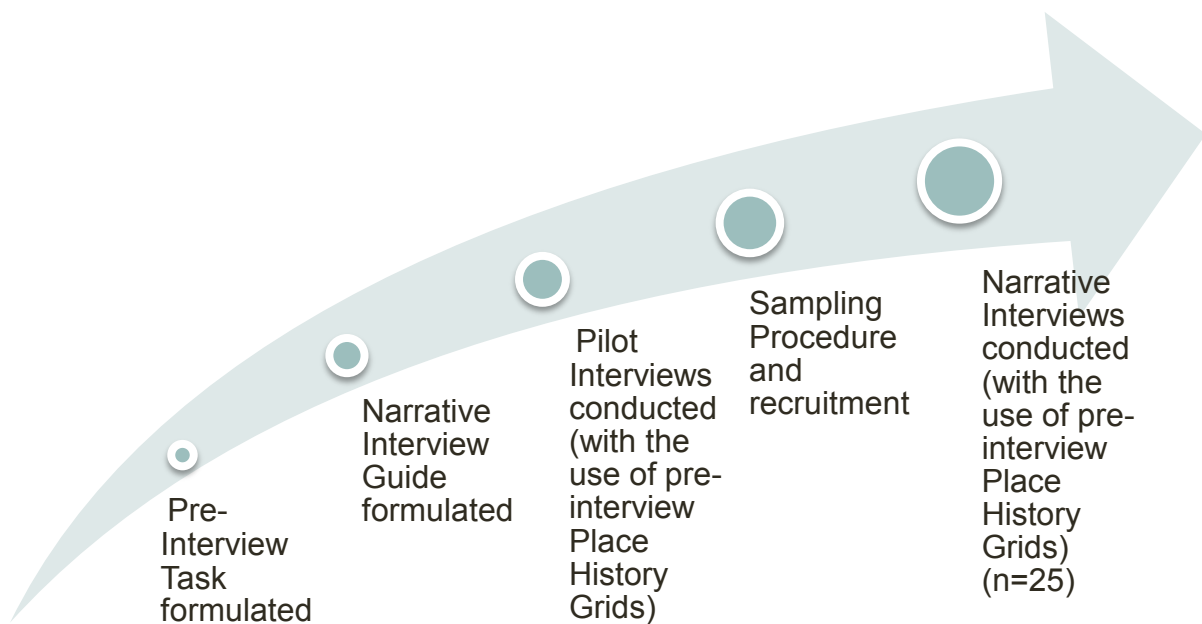


Figure 4.1: Sequential steps of the data collection process

Pre-Interview Task: This task sought to encourage informants to think narratively about their changing experiences and feelings towards past and present residence places prior to the narrative interview and thus to feed into the initiation stage of the interview process proposed by Schutz (Jovchelovitch & Bauer, 2000). The task comprised three activities: the first asked participants to list the places they had lived in over time, up to and including their existing residence place; the second requested that participants complete a *place history grid* which instructed them to name each place they had lived in chronological order, list the dates they had lived in each location, their age at those times, and their thoughts, experiences and feelings of life in each place. Through the use of reflective questions, any changes in feelings towards past or present residence places were noted by the informant; the third asked participants to write down five words or phrases that they felt best described the place and area where they currently live (i.e. Nailsea and nearby countryside).

The pre-interview task was distributed and completed by informants approximately one to two weeks prior to a scheduled narrative interview. Informants were given the option of having the pre-interview task e-mailed or posted to them. At the end of the task informants were asked to list their availability over the coming weeks in order to schedule an interview at a date and time convenient to them. Upon completion, individuals were asked to return the task either via e-mail or by post (whereupon a pre-paid envelope was

provided). Upon receipt, the researcher read over the pre-interview task, making some marginal notes, and then proceeded to arrange a narrative interview with the individual.

The pre-interview task was designed so as to impose as little thematic content or ordering of themes as possible. The goal was to enable the informant to reflect openly and freely about the researcher's overarching areas of interest with the aim of facilitating the formation of place-based narrative accounts during the interview. This was achieved via specific design approaches – firstly, through the use of open-ended questions couched in everyday wording, and secondly through the use of the place history grid (*activity 2*) that encouraged the informant to form chronological ordering of experiences, thoughts and feelings of past and present residence places and changes therein.

Narrative Interview Guide: The interview guide aimed to elicit oral accounts based on two main themes: (1) Narrative accounts of Nailsea residents' place histories – this was geared toward eliciting oral accounts of informants' descriptions, feelings and experiences of each residence place over time and changes therein. The pre-interview task usefully foregrounded this undertaking and was used by some participants as a memory guide during their narrative accounts. Part three of the pre-interview task (listing five words or phrases that best described their current residence place) was used in most cases to inform discussion of participants' representations of Nailsea and the surrounding countryside. *An activity was introduced at the end of this first section of the interview, where informants were presented with summarised paragraphs of each of the five varieties of people-place relations and were asked to select which varieties resonated the most with them in view of their relationship to Nailsea and the surrounding countryside. This was only undertaken after oral elicitation of people's varieties of place relation to Nailsea, and was used as a means to support participants' verbal accounts;* (2) Views towards the HPC transmission line proposal – the use of probing questions were designed to gauge levels of awareness and interpretations of the project proposal. Further questions inquired about potential impacts of the project upon both participants' varieties of people-place relations and upon the character of Nailsea and surrounding countryside area. The narrative interview guide can be found in the appendix at the back of the PhD thesis.

Pilot interviews conducted: Four pilot interviews were conducted with Nailsea residents' using the first recruitment strategy described below. Pre-interview tasks were completed prior to arranged interviews. The narrative interviews were a good opportunity to practice the interview skills associated with an unstructured interview format, and to utilise participants' place history grids to guide the elicitation of people's narrative accounts.

Sampling procedure and recruitment: A sample of 25 respondents (n = 25) living in the town of Nailsea, South-West England was used. Nailsea is a small town with a population of 17,649 people (Census Data, mid-2010). Stratified random sampling (Bryman, 2008) was adopted with the aim of recruiting a representative sample of Nailsea residents sensitive to a range of socio-demographic factors including age, gender and socio-economic background. The sample included 13 women and 12 men, with ages ranging from 18 to 85 years. Their residential biographies differed greatly, with some having resided in Nailsea most if not all of their lives, others having moved to Nailsea in middle age, and others having resided in many places prior to relocating to Nailsea. Occupational backgrounds varied and included 2 university students, 8 respondents in permanent or temporary employment, 1 self-employed, 11 retirees, and 3 without employment.

Two methods were used to recruit participants. The first involved placing a recruitment poster in a number of public spaces (such as sports and leisure centres, and the local council notice board). This gave details of the overarching research theme, tasks involved, financial remuneration and contact details. A second method involved approaching members of the public in Nailsea town centre with a representative sample of residents in mind. Both strategies eventually led to snow-ball sampling with friends and family members of initial interview participants (Bryman, 2008).

Narrative Interviews conducted: The 25 narrative interviews were conducted during the period of January to April 2013. Most were undertaken in people's homes, but two took place in the coffee shop of the Scotch horn leisure centre situated close to the centre of Nailsea. Interviews were scheduled at different times of the day depending on the participants' availability. Each interview was recorded using an audio recording device and verbal recording consent was

secured prior to commencing. The interview recordings were then transcribed following a conventional format (Bryman, 2008; Gerson & Horowitz, 2002), omitting digressions and very minor parts of the interview that were irrelevant to the study's themes or aims.

4.4 Data Analysis;

Thematic analysis (Bryman, 2008) was used as a way of replicating and identifying novel varieties of people-place relations. Whilst both sub-themes and wider themes in the interview data were developed using a coding template, open coding (Strauss & Corbin, 1990) enabled novel place orientations to emerge. Whilst useful for establishing themes across interview participants, conventional thematic analysis tended to isolate fragments of data and thus overlook the temporal inter-connections between them. For this reason, thematic narrative analysis (Riessman, 1993, 2008) was utilised in order to establish changes in people's varieties of people-place relations over the life course, and to gauge experiences of and responses to the HPC power line proposal. This involved thematically coding people's relations to past residence places in a temporal fashion, so that a clear temporal narrative account of people's place relations to different residence places over the life course was elaborated.

Patterns across these narrative themes were then sought in order to arrive at particular 'life-place trajectories'. This process began with coding each individual's narrative account and then seeking narrative themes or patterns across individuals. Conventional thematic analysis was utilised in order to arrive at themes relating to participants' views towards the HPC power line proposal and links were sought between life-place trajectories and views towards the project. Conventional thematic and thematic narrative analysis was undertaken using NVivo V.10 qualitative data analysis software.

5. Findings and Discussion:

5.1 Existing and novel varieties of people-place relations;

This findings and discussion section attends specifically to research aim and related question one and presents findings that confirm the existing five-partite typology of people-place relations and reveals the emergence of a novel variety,

named 'Traditional-Active attachment', comprising characteristics of both the traditional and active forms of attachment to the residence place. These varieties, the number and characteristics of narrative interview participants identifying with a particular variety, and associated representations of the place are summarised in table 4.1. Each of these varieties are seen as individual and personal ways of relating to the residence place that are embedded and situated within co-constructed socio-cultural meanings of the place (and places generally) and of generalised ways of relating to place.

Following thematic analysis of the narrative interviews, three sub-themes were seen to comprise varieties of attachment to the residence place and shared common components including a strong emotional bond, positive social bonding, largely positive representations of Nailsea and the surrounding countryside and positive life experiences in the place. These three varieties - traditional, active, and traditional-active - shall now be outlined using individual examples for each, with supporting narrative interview material and discussed in relation to existing literature in this area.

- ***Traditional Attachment*** is characteristic of participants that have lived most, if not all of their lives in Nailsea. Debbie is a long-term resident of Nailsea who has spent the last 35-40 years living in the place. She lives in Nailsea with her husband and two children and has a daily commute to the nearby City of Bristol. When asked about her attachment and connection to Nailsea, she commented:

"...well yeah, that feeling of rootedness, I suppose it's a feeling that I've put down roots in Nailsea, that I'm settled here, you know? I don't feel like I'd want to live anywhere else because I'm happy living here, I've got my daughters living nearby with their families, I've got good friends around, and I'm comfortable living here in this house with Dan...it's that feeling that you're sort of cosy and secure, I mean I know lots of people in Nailsea, people I bump into on the street which I like, and I sort of know my way around, I've got my bearings here I suppose."

Debbie's 'feeling of rootedness', the sense that she has 'put down roots' and is 'settled' in Nailsea suggest that she has a strong emotional attachment to the place. This is qualified by her reluctance to consider moving away from Nailsea and living elsewhere. As seen from the quote above, Debbie's strong emotional

bond to Nailsea can be attributed to her strong social and family ties in the area, which include her two daughters that live nearby and her group of 'good friends'. For Debbie, Nailsea provides a sense of comfort and security which stems from the formation of strong social bonds and is reinforced by her sense of familiarity with the place which can be attributed to her knowledge and ability to navigate the streets of Nailsea.

One of the most important qualities of Nailsea for Julie is its proximity to the surrounding countryside and the sense of relaxation and respite it brings from her regular commute to and from the nearby City of Bristol:

"I like cycling and you're surrounded by countryside which is nice, but when I travel into Bristol it's like an air-lock really, you come into Bristol where it's all busy and then you sort of come into the country and all of a sudden you've got the chance to relax and think 'Ah, I'm back home now'".

When asked whether or not she reflected or thought much about her emotional bond to Nailsea, Debbie stated:

"Well no, I mean I don't really go about my everyday life thinking about this sort of stuff, about Nailsea, I just sort of live here and that's enough. I just get on with life I think, I don't ponder greatly on my feelings about Nailsea, living here is just something I take as a matter-of-fact. I do feel anchored to Nailsea, but it's not something that I'm really aware of or reflect much about I don't think, and I think that goes for my family too...we live here, we're rooted here, but we're not thinking about it most of the time".

This interview extract suggests that whilst Debbie and her family are strongly bonded to Nailsea and the nearby countryside, her emotional place attachment is not necessarily something she thinks about or is aware of much of the time. This sentiment is exemplified in the last sentence where Debbie says, 'we're rooted here, but we're not thinking about it most of the time'. Debbie's relationship to Nailsea and the surrounding countryside, and arguably that of her family, resonates strongly with the existing characteristics of 'everyday rootedness' or 'traditional attachment' outlined in studies by Hummon (1992) and Lewicka (2011b), which are shown to be symptomatic of people that

identify un-self-consciously with their residence place and that adopt a 'taken-for-granted', passive attitude to the place.

Debbie also speaks positively of Nailsea as a place, describing it as 'safe' and 'cosy', values the restorative quality of the surrounding countryside, and views the transport links and services available in Nailsea favourably. Despite her overarching positive depictions of the place, Debbie hints at a perceived shortfall of the town, where high property prices prevent younger families moving to Nailsea, leaving the place feeling like it's '*full of nursing homes*' and left needing people that would '*bring some vitality to the place*'. Debbie's overarching positive depictions of Nailsea, combined with her negative description of an older, less energetic Nailsea population, supports Hummon's (1992) finding that those people identifying with 'everyday rootedness' tend to have largely favourable, but mixed views toward their residence place and community.

Debbie, alongside six other narrative interview participants, were seen to evoke the 'everyday' or 'traditional' form of attachment thus supporting existing findings (Hummon, 1992; Lewicka, 2011b; Devine-Wright, 2013a) that suggest some people hold a strong yet taken-for-granted bond with their residence place. They also support findings in Lewicka's (2011b) study that suggest traditionally attached people tend to score relatively highly on social bonding. Traditionally attached interview participants also tended to have a high residence length and be older which are findings supported by Lewicka's survey study.

Traditionally attached participants tended to qualify their emotional relationship to the place with particular co-constructed meanings (or social representations) of Nailsea and the surrounding countryside. These participants drew on representations of Nailsea as a 'secure', 'cosy' and 'familiar' kind of place, echoing phenomenological understandings of one's valued residence place as a site of certainty and familiarity in otherwise insecure, empty and nameless space (Tuan, 1980). The countryside around Nailsea was seen to be represented as a 'relaxing' and 'restful' environment which resonates with existing studies where physical or natural environments are seen as restorative places (Devine-Wright & Howes, 2010; Anderson, 2013). Whilst the countryside

around Nailsea was seen as restful, it was also represented as replete with existing electricity infrastructure given the presence of two lower voltage power lines in the vicinity.

In addition, traditionally attached participants evoked wider social constructions of generalised attachment to place, drawing upon metaphors of being 'rooted', 'putting down roots', and being 'anchored' in place, suggestive of a strong emotional bond to the residence place, and previously seen to have emerged with Gustafson's (2001) 'roots' theme, which designates individuals with low residential mobility and a strong emotional bond to their place of residence. This suggests that traditionally attached participants drew on specific metaphors relating to generalised ways of being attached to place ('rooted' and 'anchored') as a way of emphasising their own personal attachments to Nailsea and to situate their personal place bonds within a wider socio-cultural context.

- **Active Attachment** tended to characterise study participants that had moved to Nailsea later on in life as adults, having lived in a relatively low number of prior residence places. Andy is retired and has lived in Nailsea with his family for over thirty years having lived previously in similar types of places in Southern England. As well as strong family ties to the area, he has seen Nailsea grow and takes an active interest in the place's history. Whilst he could be described as rooted to Nailsea, his relationship to the place is far from passive and unreflective. Over the years Andy has become involved in a number of faith-based community activities including volunteering in youth work and acting as a chaplain for the Nailsea fire brigade. He talks enthusiastically about these roles and the beneficial contributions he feels he is making to other Nailsea residents, believing that it is his duty to '*give something back to Nailsea*':

"I know Nailsea very well... it's where I feel at home...I've seen the place grow so I suppose it's part of me...for three years I did youth work, I volunteered to coordinate all the youth work that was going on in Nailsea...I'm still involved with Nailsea fire station, I've been involved as a chaplain down there...it's nice to give something back to Nailsea really".

Andy's active involvement in community-based activities and his interest in the history of the place are characteristics of the active variety of place relations

that emerge from Lewicka's (2011b) study, where survey respondents who were actively attached to their residence place tended to have a high degree of engagement in communal activities and interest in the historical roots of their City or town.

When asked about his attachment to Nailsea, Andy explicitly expresses a self-conscious bond to the place, one where he reflects and actually thinks about the attachment he has with Nailsea as a place:

"I'm rooted, you know, I have been actively involved with what's going on in Nailsea, I do participate in communal activities, and yeah I do think about my relationship to Nailsea, I like it as a place".

Not only does Andy express a self-conscious type of bond or attachment to Nailsea during his interview, he also goes so far as to make a distinction between two types of bond that people have to Nailsea – those that get involved in place-based communal activities and develop strong social connections in the place, compared to those who *'do just live here and don't get involved in anything'*. Here, Andy constructs two different kinds of people that are attached or bonded to Nailsea in two different ways – either in a more active social and community-oriented way or as passive residents. These two types of people and their relationship to the place are similar to the distinctions made in existing studies (Hummon, 1992; Lewicka, 2011b) between active and traditional forms of attachment:

"I mean I know people who have lived here for years and are rooted here but who do just live here and don't get involved in anything, and I guess if you were interviewing them they would see it as a whole different place...but as I say we do get involved, school and church and all those different things and I think that connects us to the place more strongly, especially because we know lots of different people."

For Andy, membership of Nailsea Baptist Church is an avenue toward fostering greater involvement in place-based communal activities and forming stronger social connections with other Nailsea residents:

"Well as a church I think we're very much committed to being in the community, not just a big building in the town centre, so we organise barbeques and events

like that, and help out at different events, so that's very much the ethos of not sitting around waiting for people to come to us but actually going out to the people, to other people living in Nailsea, so yeah, I guess community twice there in the sense that church is a source of community for us but it's also our church's ethos to be a community for people, to sort of reach out instead of just waiting for people to come in, so yeah, we do a lot of stuff in the community."

The above quote suggests that for Andy, attending and being part of a local Church provides the possibility of generating greater social cohesion and connection with other Nailsea residents – in fact, part of the very ethos of the Church and its members is *'not sitting around waiting for people to come to us but actually going out to the people, to other people living in Nailsea'*. This attempt to foster strong social connections with other residents of the place corroborates findings by Lewicka's (2011b) study that showed actively attached respondents tended to report a high degree of social bonding. This way of relating to the place is also reminiscent of 'elective belonging' (Savage, 2010) which designates a type of relationship to place held by middle-class suburban incomers whom, having had no prior connections with their new suburban residence place(s), became highly vested in it and consciously chose to move, settle in and value the aesthetic landscape elements of the place. Making a go of suburban community life is also a feature of elective belonging and can be seen to closely mirror the active variety of attachment here outlined.

As well as his involvement in place-based activities and his efforts to cultivate a sense of community, Andy maintains positive neighbourhood relations and makes an active attempt to keep track of who his neighbours are should they ever need help. As the co-ordinator of the neighbourhood watch scheme he aspires to foster a sense of neighbourhood cohesion at a time when *'modern life'*, as he sees it, has eroded strong neighbourhood relations:

"...I know the people, there's a neighbourhood watch scheme and I'm the co-ordinator for the neighbourhood watch...we've worked hard to try to ensure that we know who our neighbours are, most are elderly now, they're all quite elderly so we've worked hard to get to know them so that if they ever need help they know they can come to us...you know, social bonds and relationships is important, I mean it's part of what community should be and obviously modern

life doesn't have that does it? Unfortunately people don't know their neighbours to a large extent..."

Andy's attempts at forging strong positive neighbourhood relations corroborates findings by Lewicka (2011b) that showed actively attached respondents tended to score highly on social capital toward neighbours, suggesting that strong neighbourhood ties are an important characteristic of this variety of place attachment.

When asked about the positive aspects of Nailsea, Andy spoke favourably of the place commenting upon its suitability for raising a family:

"It's a good place to, you know, live happily with a family and you can...it's a good place to bring up children".

He also speaks positively of the beauty of the surrounding countryside and, like Debbie, speaks of its restorative and restful qualities

"I love the countryside around Nailsea, you know, there's the rolling hills and the greenery, it's just beautiful... coming out of Bristol, always, especially in the summer when it's hot, even though there's only ten miles I suppose between us, I come out and think, 'Oh, I can breathe again', you know there is that feeling that coming out of a big City, although we're so close, you can just unwind."

Andy's positive representations of Nailsea as a good place to raise a family and the restorative scenic qualities of the nearby surrounding countryside supports findings by Hummon (1992) that found actively attached residents of Worcester to have favourable views towards the place.

Andy, alongside five other narrative interview participants, was seen to evoke the 'ideological' or 'active' form of attachment thus supporting existing findings (Hummon, 1992; Lewicka, 2011b; Devine-Wright, 2013a) that suggest some people hold a strong yet self-conscious bond with their residence place.

Whilst actively attached participants tended to share similar social representations of Nailsea as those identifying with traditional and traditional-active varieties (as a 'safe' and 'peaceful' place), these interviewees emphasised the strong social basis for their place bond using words such as

'friendly', 'community' and 'nice neighbours' to represent Nailsea. In addition, the countryside around Nailsea tended to be represented more as a 'natural', 'scenic' and 'picturesque' locale within which one could engage in 'plenty of recreational activities'. In this sense, greater emphasis was placed upon the valued aesthetic qualities of the surrounding countryside amongst actively attached participants. Such representations of the countryside around Nailsea fit with existing literature which suggests rural and urban dwellers in England maintain romanticised notions of a generalised pre-industrial and idyllic countryside locale, interpreting it as a 'natural', pristine environment (Short, 2002). This way of representing the nearby countryside is particularly pertinent to those identifying with active attachment since these participants have typically lived in similar semi-rural settlement types prior to relocating to Nailsea, engaging in recreational activities in so-called 'natural' countryside locales.

Andy, in the example above, also drew on the metaphor of being 'rooted' in order to emphasise his strong emotional bond to the place, thus utilising a metaphorical device (viewed as an objectified social representation) that is shared across groups and societies in order to situate his own personal bond to the place.

- ***Traditional – Active attachment*** tended to characterise people that had a relatively long residence length in Nailsea, having grown up in the town as children, relocated elsewhere for periods of up to three to ten years during adolescence and early adulthood, and having ultimately returned to Nailsea as adults due to the draw of re-connecting with a place toward which they felt attached and a social base comprising family and friends that still resided in the place. This novel place orientation comprises a composite variety of place relation sharing characteristics from both the traditional and active types of attachment.

Jenny grew up in Nailsea with her family up until the age of eighteen when she moved to a nearby sea-side town with her then husband and daughter. Following the break-up of her marriage and a period of unhappiness in her then residence place, Jenny yearned to return to Nailsea where a social support network awaited her and the desire to return to a familiar place of residence was initiated. Of her relationship to Nailsea, Jenny tended to evoke an

unreflective bond to the place and low involvement in place-based communal activities (characteristics of traditional attachment), combined with some interest in the goings-on of the place and the historical roots of Nailsea (characteristics of active attachment). When discussing her bond to Nailsea, Jenny remarked:

“I wouldn’t say I really think that much about living here. I don’t consciously think about my relationship to Nailsea at all really, I mean I live here but that’s it you know, I get on with it”.

The above quotation would suggest a taken-for-granted bond to the residence place. However, when asked specifically near the end of the narrative interview whether she identified with any of the existing varieties of people-place relations, Jenny purposefully positioned herself ‘between’ the traditional and active forms of rootedness. She reported a relatively low level of involvement in communal activities, but an interest in the history of the place and attempts to keep track of the goings-on in the locality. This suggests that Jenny identifies with elements of both traditional and active forms of attachment, as evidenced in the interview extract below:

“I’d say I fall somewhere between the two because I don’t get as involved in the community to that point, I don’t get so involved where I’m out in the community...though I do keep an eye on Nailsea People (a website dedicated to Nailsea news and events) to keep in touch with what’s going on in the area... I’m sort of in between...I can’t say definitely I’m one, because neither of them say exactly what I think”.

Jenny’s reluctance to position herself as either a type of person that is traditionally or actively attached to Nailsea and the surrounding countryside suggests that some people may not in fact fall neatly into any one of the existing varieties of place attachment, instead, identifying with particular elements of the two and blurring the boundaries between what have up till now been conceptualised as distinct ways of relating to one’s residence place.

Upon further reflection, Jenny reiterates her position as combining aspects of the two existing varieties of place attachment, when she identifies with aspects of the active variety (i.e. an interest in the history of the place) in addition to elements of traditional attachment (i.e. lower involvement in the community).

Importantly, she once again places herself amongst aspects of both varieties when commenting that she leans towards the active variety 'as well' as the traditional form of attachment:

'...that second one (active attachment) would definitely be more, because the first one describes someone without much interest in the place, but there is quite a lot of history to Nailsea actually, so yeah, I'd say the second one (active attachment) I'd lean to as well...as you said, that one (traditional attachment) sort of sums up that I don't actually go out in the community as such, but I mean I probably would if there was something I felt strongly about'.

Simon, another narrative interview participant who positioned himself as identifying with attributes of these two place attachment types commented:

'I don't consciously think about my relationship to Nailsea at all, I mean I live here that's it you know...I feel rooted here...to a lesser degree I get actively involved with what's going on here in Nailsea and participate in communal activities, I mean we're active in the Church, I preach quite a bit in the area so I guess I'm known by some people, but no a bit of both I think'.

When shown statements that describe the traditional and active varieties of place attachment, Simon, as evidenced in the quote above, clearly identifies with a taken-for-granted bond to Nailsea (traditional attachment), whilst also expressing some active involvement in community and Church-based activities (active attachment). Like Jenny, Simon positions himself as somewhere between the two place attachment varieties when he comments that he identifies with 'a bit of both' – in other words, aspects of both varieties.

These two cases provide an empirical basis for suggesting that a novel composite variety combining elements from both the former traditional and active varieties of place attachment exists. This is evidenced in the above examples where Jenny and Simon, when shown written descriptions of these two types, are seen to clearly identify with aspects of both varieties. For Jenny, a taken-for-granted place bond and low involvement in communal place-based activities (traditional attachment) is combined with an interest in the goings-on of Nailsea, its historical roots, and the suggestion that she could foresee involvement in a place-based cause should it be something she felt strongly

enough about (suggestive of active attachment). For Simon, a taken-for granted place bond (traditional attachment) is combined with some active involvement in community and Church-based activities (active attachment). In addition to the verbal suggestion that they share aspects of both the traditional and active varieties, their place relations to Nailsea can be seen to be distinct and different from a purely traditional or purely active variety of attachment. This novel variety is also distinct in that those individuals identifying with it experienced a particular life-place trajectory ('Home Core traditional-active attachment'). Future qualitative research is required that can further explore and tease out the shared characteristics of this novel variety, and corroborate its relation to this particular life-place trajectory.

The emergence of this novel composite variety of people-place relations shows empirically for the first time that the prior five-partite typology of place orientations does not sufficiently cater for all the ways in which people may relate with the places in which they live. With this in mind, future research that explored existing and novel varieties of people-place relations using both qualitative and quantitative methodologies would be valuable. After all, empirical research into varieties of people-place relations is still very much in its infancy.

Whilst those identifying with the traditional-active variety evoked similar social representations of Nailsea and the surrounding countryside (as a 'familiar', 'secure', and 'peaceful' place that is replete with existing electricity infrastructure) to traditionally attached participants, greater emphasis tended to be placed upon Nailsea as a central 'home' place toward which a profound sense of attachment was felt. The use of the trope 'home' to represent Nailsea is akin to humanistic geographers' expressions of one's home place as a site of profound human attachment and identity-making, and is wrapped up in associated representations of 'home' as a site of 'safety, stability, refuge and pause' (Relph, 1976:40; Dupuis & Thorns, 1996). This way of representing Nailsea is particularly pertinent to those identifying with the traditional-active variety, since these are participants that typically returned to Nailsea following negative experiences in other residence places, seeking to re-establish a social support network and a sense of familiarity and comfort in a place that is seen very much as a sanctuary.

Following thematic analysis of the narrative interviews, three sub-themes were seen to comprise varieties of non-attachment to the residence place and shared common components including a weak or absent emotional place bond, weak social bonding, largely negative representations of Nailsea and the surrounding countryside and negative life experiences in the place. These three varieties, place relativity, place alienated, and placelessness, shall now be outlined using supporting narrative interview material.

- **Place relativity** tended to be characterised by interview participants that had moved to Nailsea as adults with relatively low residence length and a weak emotional bond and ambivalence toward the place. Gill has lived in Nailsea for approximately five years having relocated from South-East England following her husband's job relocation. When asked about her feelings towards Nailsea as a place, Gill commented:

"I do have mixed feelings towards Nailsea and I wouldn't say I feel very rooted to the place...I don't hate living here so it wouldn't be fair to say that I dislike living here but at the same time I don't feel like it's a place that I really really love...if Richard got another job that took us back to the South-East it wouldn't bother me going back, I could leave Nailsea behind without a great deal of trauma".

This quote from Gill suggests that she is weakly attached to Nailsea but that it's also not a place that she dislikes (which might suggest that she fell into the place alienated place orientation). She ends by suggesting that she would welcome the prospect of moving back to the South-East of England should the opportunity arise. This suggestion resonates strongly with prior characterisations of the place relative variety (Lewicka, 2011b:677) as 'an ambivalent and conditionally accepting attitude toward the residence place'. Gill's mixed feelings towards Nailsea and the surrounding countryside are further exemplified in the following interview extract:

"it's mixed...what I like is that it's a nice place to live, you don't really feel threatened, you know, you can just get on with stuff and no one really bothers you and people are generally nice and polite, like people should be really...but at the same time part of that is things I don't like, which is that it is almost too safe and nice, like a little bubble really, there's not much going on

here...Nailsea has become a town where I get home after work, have dinner and then sleep, and enjoy a quiet weekend because it's in the nature".

Perhaps due to her relatively short residence length, her distance from family members and prior friendship group in the South-East, and how low degree of engagement in place-related communal activities, Gill does not have an active or well-developed social base in Nailsea:

"Well no, I don't socialise much with people here and I think that's maybe down to the fact that I don't get too involved in stuff here, I mean clubs and that sort of thing. Richard and I know some other couples so we'll have dinner with them from time to time, but no, most of my family and friends, you know, my good friends, are back in Crawley (Gill's prior residence place in the South-East of England)".

Gill's low degree of engagement in place-based clubs and associations, and her weak social connections in Nailsea lend some support to findings by Lewicka (2011b) that showed respondents identifying with the place relative variety of place relations tended to report lower levels of engagement in communal-based social activities and very low levels of social bonding.

Gill tended to qualify her emotional relationship to Nailsea with particular social representations of the place. She drew on rather straightforward and descriptive place-related meanings relating to the functional aspects of the place, suggesting that Nailsea was the kind of place that had 'decent facilities' and 'good transport links'. Her ambivalent emotional relationship to Nailsea is further exemplified through the elaboration of mixed place representations, on the one hand representing Nailsea as a 'nice place to live' where the people are 'nice and polite', whilst also representing the place as a quiet and rather uneventful type of place, drawing similes of Nailsea as 'too safe and nice'. The mixed set of social representations drawn upon can be seen to enable Gill to situate her own personal feelings of ambivalence towards the place.

In addition, Gill can be seen to draw upon the 'rooted' metaphor, but uses the negative version – i.e. 'I wouldn't say I feel very rooted to the place' – in order to play down her own emotional connection with the place. Thus, we see the use

of metaphor (objectified representations of ways of relating to place generally) in order to situate a weak bond to the residence place.

- **The *Place Alienated*** variety is characteristic of participants that tended to have moved to Nailsea recently (in the past one to three years or less) and who therefore have a very short residence length in the place. Mark is a young man in his mid-twenties who has lived in Nailsea for the last ten months. Having secured a job in her mother's floral business, Mark's girlfriend is now happy to be back living in the town where she grew up, close to family and friends. Mark on the other hand, feels disenchanting and estranged with life in Nailsea. Having moved from a larger City in the North of England, Mark dislikes the comparatively small size of Nailsea and the lack of activities to engage in for someone of his age, and he therefore tends to spend a lot of time in the nearby City of Bristol where he is pursuing postgraduate study. Of his emotional bond to Nailsea, Mark comments:

"...no I don't feel rooted to Nailsea really, as I say other than its proximity to Bristol and the fact that my girlfriend's family base is here I wouldn't really see any reason to stay personally."

This interview extract suggests that Mark has a very weak negative emotional bond to his current residence place and cannot see any reason to stay living in Nailsea other than for the happiness of his partner.

When asked what he thought of Nailsea as a place, Mark had very negative depictions of the place, describing it as 'dead' and 'too quiet', with 'nothing going on'. For Mark, Nailsea is not a place he enjoys living in and one that would be better suited to people with families or 'older people':

"Well for me Nailsea really doesn't have much going for it...I mean having moved from somewhere like Manchester, to go from that to living somewhere like Nailsea, I mean it's just dead...it's too quiet for me, there's just nothing going on, I don't really like it...it's mainly a sort of family place, and a place for older people..."

Mark's depiction of Nailsea as being the type of place that suits families or older people raises an interesting point about notions of the life stage, the perceived suitability of a place in this regard, and the subsequent relationship that people

may have towards the residence place. According to Mark, Nailsea is the kind of place that suits people that are at particular stages in their lives (i.e. the stage of raising a family or the stage of being old and retired). It is not the kind of place that suits younger people, like Mark, who do not fit any of the above life stages. As a result, Nailsea has little to offer Mark, who would much rather reside in a nearby City where there is more excitement and youth:

“...no I don’t see myself living here for the rest of my life, or at least not at this stage in my life...I think it might be nicer if you’ve got a family or something, or if you want the quiet life because there is a lot of countryside around, it really is a rural kind of place, it feels almost like a large village to me... but like I say that’s not where I want to be right now, I’d like to live somewhere like Bristol instead, you know, a good place for socialising and going out and doing things”.

This shows that shared notions of particular human life stages (i.e. the pre-family life stage, the family life stage, the retired life stage) can inform the way that people describe and represent places (i.e. a family place, or, a place for retirees), which, depending on one’s affiliation with a particular life stage, can shape one’s relationship to a residence place. In Mark’s view, Nailsea is not well-suited to someone of his life stage and this is one of the reasons that make him dislike living in the place.

The above interview extracts suggest that Mark is very weakly attached to Nailsea, holds unfavourable depictions of the place, and has a low level of social bonding, preferring to spend time in Bristol where he has a group of friends. These characteristics have been shown to emerge in existing studies by Hummon (1992) and Lewicka (2011b) that suggest place alienated people tend to dislike their current residence place, represent the place unfavourably, and report low levels of social bonding. In contrast to findings by Lewicka however, the place alienated participants in this sample tended to have much shorter lengths of residence to their town than shown in the study, where survey respondents that were place alienated reported a mean length of residence to their City or town of approximately 28 years. This could be attributed to the small sample (five participants) expressing the place relative variety in this study making it difficult to compare with the mean score in Lewicka’s (2011b) study which utilised a large-scale representative sample of Polish residents.

Mark tended to qualify his alienation to Nailsea with negative representations of Nailsea as 'isolated', 'boring' and 'lifeless'. He further draws on particular social representations of Nailsea as 'dead' (use of simile), in order to situate his own dislike and alienation toward Nailsea. For Mark Nailsea is the type of place that suits families and old people ('it's mainly a sort of *family place*, and a *place for older people*') thus resulting in a poor life-stage fit and subsequent disinclination toward Nailsea as a place. Like Gill, Mark expresses a lack of rootedness to Nailsea ('...I don't feel rooted to Nailsea really'), drawing on a socio-cultural metaphor that is shared across groups and society in order to situate his own weak bond to his current residence place.

- **Placelessness** is characteristic of interview participants that have a relatively short residence length in Nailsea and a particularly high level of residential mobility. Pete is a middle-aged man who works in the financial services in the nearby City of Bristol. He had previously lived in a large number of different towns and Cities across England and Wales due to the nature of his job. About five years ago he moved to Nailsea, meeting his partner shortly afterwards and moving in with her and her two children. What's interesting about Pete and other 'placeless' interviewees is that despite talking coherently about the pros and cons of living in Nailsea, he has an absence of attachment to the place:

"To me it's the people who make the place, not the actual place. I would live anywhere with Jess and the girls because they're the reason I'm here. They're my bond. Whereas the place I'm living in, yes it's convenient, yes I like it here, but it's just a place to live".

This extract suggests that whilst Pete is strongly connected to his present family, this feeling does not necessarily extend to the place that he resides – for Pete Nailsea is 'just a place to live'. This supports findings in a study by Lewicka (2011b) that showed placeless respondents tended to have a strong non-territorial identity, identifying strongly with the family unit, hobbies or profession rather than the place per se. Pete further emphasised his placeless relationship to Nailsea when he remarks:

"...whereas obviously I've got strong ties with Jess and the girls and the family around me as a whole, unlike Jess, who's got a very strong attachment to Nailsea, to me it's just a place I live because it's the people I live with who make

it home. The rest is just bricks and mortar to me. And to me shops are just shops, you've seen one you've seen them all. It's the family unit that I've got here that's important to me."

Pete contrasts himself with his partner who is somebody, he suggests, that has a strong bond to Nailsea as a place. In doing so, he is able to accentuate his own position as someone that lacks such an attachment to the place. Pete's seeming placeless relationship to Nailsea is consistent with his accounts of relationships to prior residence places. Of his life in Avonmouth, for example, Pete comments:

"No I wouldn't say I had an emotional tie to the place in Avonmouth, to me it was just a flat and I had no qualms moving away...obviously me and Jess discussed moving in together in Nailsea and I had no qualms going, 'Yes, I'll move there, not a problem'. I didn't think twice, there was no sort of, 'Oh yeah, but I'm going to leave my flat behind', I packed all my stuff and I ran and came...a bit like those hermit crabs, I can move from place to place but leave them behind without any trouble".

The above interview extract suggests that Pete does not tend to put down roots in place, finding it easy to pack up and move elsewhere, using the metaphor of the hermit crab to accentuate this point. This is perhaps due to the nature of his job which has, over much of his adult life, involved a great degree of residential mobility. This habitual residential relocation may have become normalised by Pete, with the result that he has felt no need or has been unable to develop strong positive bonds with places:

"Yeah it's something I've never been able to do, to really settle in a place because I've moved around so much with the job that I haven't been in one place long enough to really make solid friends, to form a bond with a place if you like...that's probably why Jess and the girls I so important to me, I'd move anywhere with them".

Pete, alongside three other narrative interview participants, were thus seen to evoke the 'placeless' variety of non-attachment thus supporting existing findings (Hummon, 1992; Lewicka, 2011b) that suggest some people are indifferent toward places and have no need to create emotional bonds to where they live.

In the above example, we can see how Pete evokes particular (and few) place-based meanings (or social representations of place) in order to frame his placeless form of non-attachment to the place. Pete represents Nailsea in relatively straightforward and descriptive terms, seeing it as a 'convenient' place with 'adequate facilities', whilst also stressing the importance of the 'family unit' to his life in Nailsea. In so doing, Pete places greater emphasis on non-territorial aspects of identity formation (Lewicka, 2011b). At the same time, Pete describes Nailsea and his house using the idiomatic and socially shared phrase 'it's just bricks and mortar' - a device used in this context to portray Nailsea as a purely material locale that is devoid of any particular value or need for emotional investment and which downplays any emotional connection that Pete might have to Nailsea. In addition, by likening himself metaphorically to a 'hermit crab', Pete is also able to draw on the socially shared representation that some people are wanderers, moving from place to place, able to live anywhere without feeling the need to put down roots in any one particular place, and thus situating his own personal inclination not to form emotional bonds with places generally.

The findings above support the existing five-partite typology of people-place relations proposed by Hummon (1992) and Lewicka (2011b), and propose a novel variety comprising components from both the traditional and active varieties of place relation. This suggests that some people may not fall neatly into any one of the preceding five varieties of place attachment, instead, identifying with particular elements of the two and blurring the boundaries between what have up till now been conceptualised as distinct ways of relating to one's residence place.

Furthermore, the findings above suggest that participants who evoke distinct varieties of people-place relations to Nailsea and the surrounding countryside tend to represent the place in particular ways, drawing on particular social representations (in the form of metaphors or tropes that are shared across groups and society) of place and ways of relating to place generally, in order to justify and situate their own personal ways of relating to their residence place (i.e. their varieties of people-place relations). This would indicate that the type of emotional bond one has to the residence place associates or relates with particular ways of representing that specific locale.

Whilst those identifying with varieties of place attachment shared similar place representations (including 'rural', 'green', 'good place to bring up children', and 'peaceful') and particular ways of relating to place generally (i.e. 'rooted' and 'anchored'), traditionally attached participants tended to emphasise qualities of Nailsea as being 'secure', 'safe', and 'familiar', and their relationship to the place as 'settled' and 'comfortable', whereas actively attached residents emphasised the beauty of the countryside ('beautiful countryside', 'scenic', 'picturesque'), social bonds in place ('friendship', 'friendly', 'community', 'the people', 'nice neighbours'), and engagement in place-based activities ('plenty of activities', 'recreational activities in the nearby countryside'). This would suggest that differences in variety of place attachment are accompanied and qualified by different ways of socially representing Nailsea and the surrounding countryside, as well as ways of relating to place generally. For the 'traditional-active' variety participants tended to represent the place as 'rural', 'peaceful' and 'familiar', and emphasised a strong sense of Nailsea as 'home'.

For varieties of non-attachment, those evoking the place alienated variety tended to hold negative place representations, describing the place as 'isolated', 'boring' and 'lifeless'. This would be expected given the weak negative attachment and dislike of life in Nailsea amongst these participants. Place relative participants held relatively simple and descriptive place representations ('decent facilities', 'good transport links'), as did placeless participants who also emphasised the 'family' oriented nature of the place. Interestingly, non-attached residents rarely evoked representations of the countryside around Nailsea, which would suggest its lack of pertinence for these people and their lives in Nailsea.

Studies into people-place relations have tended to either investigate varieties of people-place relations (Hummon, 1992; Lewicka, 2011b), or both intensity of place attachment and place-based meanings (Devine-Wright & Howes, 2010; Devine-Wright, 2011a; Anderson, 2013). No study to date has attempted to bring together and seek associations between varieties of people-place relations and social representations of place. The above findings suggest that there are apparent links between particular varieties of people-place relations and distinct ways of representing Nailsea and the surrounding countryside. This study therefore connects up these two place-related constructs by showing that

individuals identifying with particular varieties generally evoke distinct representations of Nailsea and the surrounding countryside.

It is important to note that the social representations of Nailsea and the surrounding countryside outlined in each variety above in fact transcend the place specific level and are seen typically to be applicable to places generally. The above findings further indicate that individuals' emotional relationships to a particular place can be seen to be embedded within and in interaction with wider socio-cultural meanings (or social representations) of place and ways of relating to place generally.

Varieties of People-Place Relations	Characteristics	Social representations of place (Nailsea and surrounding countryside) and emotional relationship to place
Traditional attachment	<ul style="list-style-type: none"> - 7 narrative interviewees - Older residents (65+ years) - Residence length (35-50 years) - Very low residential mobility - Strong but passive and unself-conscious place bond - Strong family (ancestral) ties in place - Largely favourable place meanings 	<p>Nailsea: <i>secure, cosy, familiar</i></p> <p>Countryside: <i>relaxing, restful, replete with existing infrastructure</i></p> <p>Emotional relationship: <i>rooted, put down roots</i></p>
Active attachment	<ul style="list-style-type: none"> - 5 narrative interviewees - Middle to old age (50 + years) - Residence length (25-35 years) - Relatively low residential mobility - Strong but active, self-conscious place bond - Strong social bonds with family, friends and neighbours - Community oriented - Interest in place history - Favourable place meanings 	<p>Nailsea: <i>safe, familiar, semi-rural, friendly, nice neighbours, community</i></p> <p>Countryside: <i>peaceful, scenic, picturesque, natural, plenty of recreational activities</i></p> <p>Emotional relationship: <i>rooted, put down roots</i></p>
Traditional-Active attachment	<ul style="list-style-type: none"> - 3 narrative interviewees - Young to middle aged (30-50 years) - Residence length (20-30 years) - Low residential mobility - Strong unselfconscious place bond, but an interest in the goings-on and history of the place - Strong family (ancestral) ties in place - Largely favourable place meanings 	<p>Nailsea: <i>secure, familiar, support, home</i></p> <p>Countryside: <i>peaceful, scenic, replete with existing infrastructure</i></p> <p>Emotional relationship: <i>rooted</i></p>
Place Relative	<ul style="list-style-type: none"> - 5 narrative interviewees - Middle-aged (40-50 years) - Residence length (2-10 years) - Medium residential mobility - Weak and ambivalent place bond - Weak social ties in place - Mixed place meanings 	<p>Nailsea: <i>decent facilities, good transport links, not much going on</i></p> <p>Countryside: <i>Picturesque</i></p> <p>Emotional relationship: <i>non-rooted</i></p>
Place Alienated	<ul style="list-style-type: none"> - 2 narrative interviewees - Young age group (20-30 years) - Residence length (10 months-2 years) - Medium residential mobility - Weak and negative place bond - Weak social ties in place - Negative place meanings 	<p>Nailsea: <i>isolated, boring, lifeless, large village, place for families/old people</i></p> <p>Countryside: <i>none</i></p> <p>Emotional relationship: <i>non-rooted</i></p>
Placeless	<ul style="list-style-type: none"> - 3 narrative interviewees - Middle to old age (40-70 years) - Residence length (5-15 years) - High residential mobility - Lack of place attachment - Strong family ties in place 	<p>Nailsea: <i>adequate facilities, family unit, bricks and mortar</i></p> <p>Countryside: <i>none</i></p> <p>Emotional relationship: <i>like a hermit crab</i></p>

Table 4.1: Summary of varieties of people-place relations findings

5.2 *Life-place trajectories informing people's place relations to Nailsea;*

This findings and discussion section attends to research aims and related questions two, three and four and presents findings that attempt to outline patterns of people's identification with varieties of people-place relations across the life course (named 'life-place trajectories'), the processes informing or underlying these life-place trajectories, and the ways in which they are seen to inform identification with specific types of people-place relation and place-related symbolic meanings to the current residence place (Nailsea and the surrounding countryside).

Following thematic narrative analysis, five narrative sub-themes or 'life-place trajectories' were found to inform participants' identification with the six varieties of people-place relations to Nailsea and the surrounding countryside. These five life-place trajectories will now be outlined using an example of an individual for each and drawing on narrative interview extracts. These findings are summarised in table 4.2 at the end of this section.

Each of these life-place trajectories are seen as individual and personal ways of relating to residence places over the life course of individuals that are embedded and situated within co-constructed socio-cultural meanings (or social representations) of place (both place specific and non-place specific), and of generalised ways of relating to place. These can be seen to commonly emerge through the use of socially shared metaphors, symbols or tropes and examples of these will be highlighted in the following life-place trajectories.

- ***Traditional attachment and long-term residence*** is a life-place trajectory that culminates in the traditional variety of attachment to Nailsea and the surrounding countryside. It is characterised by long-term residence in Nailsea, extremely low residential mobility and an unchanging and consistent identification with traditional attachment to Nailsea across the life-course of participants.

Ray is a long-term resident of Nailsea who is now in his mid-eighties and lives in a bungalow with his wife in the centre of the town. Having been raised in the 'village', he trained as a carpenter and was employed for most of his working life on a country estate bordering Nailsea. Along with other participants sharing this

life-place trajectory, Ray has lived all of his life in Nailsea and has only ever relocated within Nailsea when moving house, which has occurred twice in his life.

Ray spent a lot of time in the interview providing particularly strong autobiographical narrative accounts of his life in Nailsea, recounting childhood memories and many experiences across his life relating to his work, his valued family life and the changes that have taken place in Nailsea's transition from a village to a commuter town. It became clear that Ray's strong emotional ties to Nailsea were closely wrapped up in his stream of lifelong autobiographical memories associated with the place. Ray displays an autobiographical type of rootedness to Nailsea centred on what Lewicka (2014:51) terms 'episodic declarative memories' – those 'related to the self...uniquely human, subjective, and...responsible for autobiographical memory' – which may be seen to contribute to the development of emotional attachment amongst people with long term residence and life experience in a particular place. Ray has a deep bond to Nailsea and surrounding countryside areas that is centred on a strong narrative thread of autobiographical insideness – a bond that stems from life-long experience and memory-making in place. Ray's biographical characterisation of Nailsea supports Hummon's (1992) study that showed the 'Everyday' (or traditional) type of rootedness to be centred strongly upon biographical accounts of life in the City of Worcester and upon autobiographical insideness.

Ray's long residence length in Nailsea, combined with a strong sense of autobiographical rootedness and ancestral family links – '*my father was born in Nailsea, my Grandmother was born in Nailsea*' – is suggestive of Hays' (1998) 'old-old' sense of place, where elderly residents have reached the 'culmination' stage in their sense of place development characteristic of a deep embeddedness to the place they have lived all of their lives, and strong autobiographical and social insideness.

When asked about his relationship to Nailsea and whether he felt it had changed over time, Ray expressed a strong emotional bond to Nailsea that was taken-for-granted and that seemed not to have changed over his life:

'You see, I've lived here all my life, I don't know anything different...I've got strong ties to the place but it's interesting that you ask me now because I've never really thought about what I feel towards Nailsea and I don't think that's ever changed. After I retired and my wife and I thought we'd better downsize, well naturally I wasn't going to go anywhere but Nailsea really.'

The above narrative account suggests that Ray's bond to Nailsea has never been something that he consciously reflected about and this is a quality of his emotional bond to the place that doesn't seem to have changed over his life course. Combined with a strong narrative thread of autobiographical insideness, it could be surmised that Ray has held a traditional type of attachment to Nailsea and nearby countryside areas that has remained unchanged over his life due to a lack of competing place experiences that might ordinarily, as Hummon (1992:259) suggests, 'raise such identification to consciousness and transform it'. In addition, we are left with the distinct impression that Ray would never consider relocating elsewhere. This is testament to his strong life-long bond to the place that equally stems from ancestral family relations that are centred in the place and go back in time.

When talking about Nailsea, Ray represented the place as 'secure', 'safe' and 'familiar' and his relationship to Nailsea as 'settled'. These are ways of describing Nailsea that tended to be emphasised amongst traditionally attached participants, as shown in the previous findings and discussion section:

"I've always felt safe and secure here, I don't know much else...this is what I'm familiar with, here, with my life in Nailsea...I expect it's because I've lived here for so long, that I've got all those memories of life here, that my family were here and still are, well, the ones that are still alive anyway, I'm settled here you know?"

Ray's seemingly unaltered traditional attachment to Nailsea appears to be strongly grounded upon a life-place trajectory characterised by an unquestioning acceptance and unreflective type of bond to the place over time, strong ancestral place-based relations, a vivid narrative thread of autobiographical insideness, and a largely limited field of experience of life in different residence places. Ray's traditional attachment to Nailsea appears also to be characterised by a certain stagnancy in place, a deep rootedness and

embeddness in Nailsea, reminiscent of Gustafson's (2001:673) 'roots' theme which designates a bond to one's residence place that is 'tightly bound on one hand to individuals, biographies, experiences, and emotions, and on the other hand to local social networks and other forms of context dependent knowledge and resources'.

Furthermore, the way in which Ray represents Nailsea as a 'secure' and 'familiar' place tended to be shared by participants evoking the traditional variety of attachment as seen in the previous findings and discussion section. These are ways of representing place that are not unique to Ray or Nailsea, but are socially shared by people and applied to places generally (i.e. non-place specific). The ways in which Ray speaks of Nailsea and his relationship to the place – having always felt 'safe' and 'secure' there – draws on socially shared notions around place as sanctuary and refuge (Dovey, 1985; Tuan, 1980) which are seen to inform his own, and others', personal life-place trajectories. Ray's consistent traditional attachment to Nailsea across the life course has thus been partly founded upon particular co-constructed ways of representing place that are commonly based upon metaphors, tropes or symbols.

- ***Home Core Traditional-Active Attachment*** is a life-place trajectory that tended to culminate in the traditional-active and traditional varieties of attachment to Nailsea and the surrounding countryside. It is characterised by participants that grew up in Nailsea as children and adolescents, moved elsewhere for relatively short periods of time (anywhere from 3 to 10 years) having had negative life experiences in those places (identifying with the place alienated variety of people-place relations), and ultimately returned to Nailsea seeking to re-assume a strong place bond based on representations of the place as 'home' and 'secure', seeking supportive social networks, and wishing to commit to long-term residence in the place.

Phil is in his mid-fifties and lives with his family in the centre of Nailsea. He was born and raised there and other than a two year period spent living in a nearby coastal town called Clevedon, he has lived in Nailsea for most of his life. Phil is a good exemplar of the 'Home Core Traditional-Active attachment' life-place trajectory and expressed the 'traditional-active' variety of attachment. Having formed a strong bond to Nailsea growing up in the place, he spent two unhappy

years living in Clevedon as a divorcee and lone parent, eventually seeking the family support network and associations of familiarity and security present in Nailsea:

“...the experiences of Clevedon were very negative for me and so therefore, yeah, they did rub off on the place, you know, I’ve never really liked Clevedon...so moving back to somewhere where I knew I liked, back to Nailsea, where I knew very well, was like moving back into a place of security for me...it was moving back to a support network... I was going through a divorce, I was a single parent, so you know I had both of those things going on, so it was a case of moving back to gain that support, to go back to a place I was familiar with, comfortable with”.

Phil’s emotional attachment to Nailsea was strong prior to his move to Clevedon as a young adult. It is likely, as proposed by Hay (1998), that Phil had by that stage transitioned from the ‘embryonic’ to the ‘commitment’ phase in sense of place development, which may have prompted his eventual commitment to life in Nailsea upon his return. Following negative life experiences and subsequent unfavourable associations with Clevedon, moving back to Nailsea appeared to Phil to be a natural course of action. Throughout the interview, he repeatedly spoke of Nailsea as an important and secure ‘home’ place. As shown in the preceding findings and discussion section, this was a predominant way of representing Nailsea amongst participants evoking the ‘Traditional-active’ variety of people-place relations:

“I grew up here and lived in the area, I moved away and came back again, but this is my home town, this is what I class as home...(leaving Clevedon) was like coming home really, coming back to what I know... I’ve seen the place grow, you know, so I suppose it’s part of me...I don’t see us moving from Nailsea”.

For Phil, moving back to Nailsea was not an altogether unassuming act, it was a desired return to his ‘home’ place, somewhere he could feel secure and supported by family members, a valued core site of attachment. Phil’s account echoes phenomenological understandings of the home as the ‘place *par excellence*’ (Giuliani, 2003:158) – a site of unreflective security, comfort, certainty and familiarity in an otherwise insecure, unstable and nameless world (Dovey, 1985; Tuan, 1980). The importance of the home place also emerges in

Gustafson's (2001) 'roots' theme, an individual for whom low residential mobility is combined with a notion of the 'home' place as highly valued and literally irreplaceable. Phil thus draws upon a socially shared notion and metaphor of 'home' as a site of 'comfort' and 'security', as a way of representing Nailsea and qualifying both his own emotional bond to the place and his personal life-place trajectory. Phil's compulsion to leave a place he disliked [Clevedon] in order to return to his 'home' place – '...was like coming *home* really, coming back to what I know'.

Following negative life experiences of life in Clevedon – a place for which Phil expressed estrangement and alienation – Phil returned to Nailsea re-assuming a prior and largely taken-for-granted type of bond to Nailsea:

"Yes, I mean I think moving away from Nailsea, having those bad experiences in Clevedon, it did perhaps make me appreciate Nailsea more and I do like to keep up with what goes on here more than I used to, but I quite quickly fall back into taking those things as given, taking that support network as given, taking the good things about Nailsea as given".

Whilst the above extract suggests that Phil showed greater awareness of the value of living in Nailsea following his move back from Clevedon, the basis for his attachment to Nailsea is still largely assumed and taken-for-granted. Despite some conscious recognition of the valued features of life in Nailsea, it seems that Phil ultimately re-assumed a bond to the place that was based on normalised facets of security, support and familiarity, taking his support network and the 'good things' about Nailsea 'as given'. This is indicative of the 'Traditional-active' and 'Traditional' varieties of people-place relations identified in the preceding findings and discussion section and would suggest that amongst these participants the presence of, albeit short-term competing place experiences, was not sufficient to significantly 'raise such identification to consciousness' (Hummon, 1992:259).

This is an interesting finding and might suggest that the extent of people's competing experiences of places (i.e. the number of different Cities/towns/villages lived in across the life-course) and the types of experiences people have in those alternate residence places (i.e. positive, negative), amongst participants with this type of life-place trajectory, may

potentially inform the extent to which people either revert back to a taken-for-granted place bond or engage in a more self-conscious 'active' type of place relation upon returning to a residence place that one has grown up in. Future in-depth interview-based research could explore further the ways in which different degrees and types of competing place experiences, amongst those expressing a 'Home core and traditional-active attachment' life-place trajectory, informs the degree to which people take their residence place for granted or engage in a more self-conscious way towards it.

This particular life-place trajectory tended to culminate in participants expressing traditional or traditional-active varieties of people-place relations. Amongst those expressing the traditional variety, it may be, as suggested above, that competing short term life experiences may not have been significant enough in raising to a considerable level a self-conscious perspective toward Nailsea upon return to the place. Amongst those expressing the novel traditional-active variety, it may be that this life-place trajectory, whilst leading participants to take the current residence place for granted, spurred a greater awareness of the positive facets offered by life in Nailsea (e.g. familiarity, stability, continuity, a social support network) and thus proffered a greater propensity amongst these participants to stay aware of the goings-on and the positive features of life in Nailsea. Again, future narrative or life history-based research could usefully explore in more depth why this particular life-place trajectory tended to culminate in either the traditional or traditional-active variety of people-place relations.

- ***Active Attachment and continuity in settlement type*** is a life-place trajectory that tended to culminate in the active variety of attachment to Nailsea and the surrounding countryside. It is characterised by participants that moved to Nailsea as adults having lived in a number of prior semi-rural residence places or settlement types. This is a life-place trajectory typified by active attachment to former semi-rural residence places that were valued for their nearby aesthetic and scenic countryside settings and the ability for people to engage in outdoor recreational activities in this environment. Participants sharing this life-place trajectory tended to represent former semi-rural settlement types in particular ways, emphasising meanings associated with the scenic qualities of countryside areas, the abundance of outdoor recreational

activities, and the formation of social bonds with other residents, as evidenced in the previous findings and discussion section. Some participants subsequently sought continuity in a semi-rural settlement, choosing to move to Nailsea based on these qualities and forging an active type of attachment to the town and the surrounding countryside which arose due to competing place experiences across the life course leading to self-conscious awareness and appreciation for a particular semi-rural settlement type.

Dave is in his mid-sixties and has lived in Nailsea with his partner for approximately fifteen years. He spent much of his childhood, adolescence and early adulthood residing in the town of Southbourne (South England), a semi-rural location in close proximity to nearby countryside, the New Forest and the seaside. When recounting this period of his life, Dave spoke fondly of weekends spent with his father in these outlying 'natural' environments:

"...those were good days...dad used to drive the car and we used to go out and play golf and tennis and football out in the forest. And then you could drive to open areas, green areas where you could just drive your car up and camp, have a picnic or do what you like really...they were really good times, I grew up there and I think I'm very fortunate".

When discussing his relationship to Nailsea, Dave emphasised his enjoyment of living in a semi-rural location, with the nearby surrounding countryside offering scenic beauty and opportunities to engage in recreational activities. Through the development of a strong bond to Southbourne and outlying nature areas during his younger years, Dave developed an attachment to a place that shares common valued features and corresponds to a preferred generalised type of settlement (a semi-rural settlement type) comprising surrounding countryside valued for its aesthetic and recreational features. Here Dave has experienced and enacted continuity of settlement type across his life-place trajectory which has played a key role in fostering his (active) attachment to Nailsea:

"I really love the countryside, that sort of semi-rural location where it's easy to get into the countryside and enjoy it, and I think that's what I like about this place (Nailsea) really, surrounded by beautiful countryside, which I'm sure goes back to my younger years in Southbourne".

Dave at times framed his love of nearby countryside areas metaphorically in biological terms, suggesting that this is something that's 'in you genes' and 'in your blood', a type of place that is closely linked to one's biological make-up and a trait or inclination that is inherited down through family. These co-constructed and socially shared idiomatic expressions serve both to emphasise Dave's closeness to this particular type of place and thus inform his personal life-place trajectory (i.e. an affinity with semi-rural place types):

"I do have a theory that my dad grew up in the countryside in Portsmouth, he lived out on a farm and I think it's sort of in your genes really...I think it's in your blood a bit the countryside".

Dave's case suggests that continuity of a valued type of settlement across time and place can function in a way as to foster the formation of attachment to one's current residence place. This echoes the concept of 'Settlement Identity' proposed by Feldman (1990: 191) which suggests that '...generalised conceptions of places may be used to explain the development and function of psychological bonds with types of settlements'. Whilst individuals may experience positive and intense psychological bonds with specific and unique places, identification with place may also occur at the generalised level of 'settlement type' and this may 'provide dispositions for future engagement with that type of settlement'. Twigger-Ross and Uzzell's (1996:208) concept of 'place-congruent' continuity is also pertinent to Dave's case – the concept proposes that individuals maintain continuity in their sense of place identity 'via characteristics of places which are generic and transferable from one place to another'. The early development of Dave's predisposition for semi-rural localities served to facilitate his engagement and attachment to Nailsea. In contrast to the more socio-cognitive approaches adopted in these studies, Dave's case suggests that it is particular socially constructed meanings (or social representations) of a semi-rural settlement type – a kind of place characterised by natural aesthetic beauty and recreation - that can be seen to inform the development of Dave's attachment to Nailsea and frame his life-place trajectory as a whole.

Dave's attachment to former and current residence places is suggestive of the active variety of people-place relations. In the following extract Dave expresses

a conscious appreciation of the semi-rural residence places he has resided in over the years, emphasising his mindful attempts to actively engage in place-based recreational activities and foster social bonding with other residents:

“Yes, they’re places that I feel very fortunate to have grown up in, and I’ve always valued them and appreciated having grown up in such beautiful parts of the country...I am aware of what these places give me, you know, and I’m sure, well no I know that that’s why we moved to Nailsea in the end...and I’ve always got involved in like running clubs and that sort of thing...having good relations with people, getting to know people, get on with them, that’s something I’ve always tried to do wherever I’ve lived.”

Dave’s active attachments to prior semi-rural settlement types and his attempts to maintain continuity across settlement type fostered an active type of attachment towards Nailsea and the surrounding countryside following his relocation to the place.

- ***Discontinuity in settlement type and place estrangement*** is a life-place trajectory that culminates in the place alienated and place relative varieties of people-place relations to Nailsea and the surrounding countryside. This is a life-place trajectory characterised by strong positive attachments (typically the active variety) to former residence places that tended to be large towns or Cities and valued by participants for the ‘buzz’ and ‘energy’ associated with life in these place/settlement types. Subsequent discontinuity (and subsequent incongruence) in settlement type upon moving to Nailsea (a semi-rural type of settlement) resulted in the formation of an alienated and estranged relationship to the place amongst some participants.

Mark is in his mid-twenties and moved to Nailsea 10 months ago with his girlfriend who wanted to live closer to her family in the area. Although he has lived in different places over his life time, they have tended to be larger urban settlements. During the interview, Mark spoke favourably of City life and the excitement and ‘energy’ that went with it:

“When I think of somewhere I really liked living, I think of somewhere like Manchester (a large City in Northern England). I really liked living there and I think I said before that I did feel strongly attached to Manchester, and I suppose

I still do, because I had lots of friends there, I liked the atmosphere of the place, the architecture, the energy, and there were so many things to do”.

His feelings towards Nailsea however were comparatively negative. Tim’s dislike of the place and his estrangement from it are strongly related to his representation of Nailsea as ‘dead’, ‘too quiet’, with ‘nothing going on’. Were it not for his girlfriend’s wish to live closer to her family, Tim would likely not hesitate moving away:

“For me Nailsea really doesn’t have much going for it...it’s just dead...it’s too quiet for me, there’s just nothing going on. I don’t feel attached to Nailsea, as I say, other than its proximity to Bristol (a nearby City) and the fact that my girlfriend’s family base is here, I wouldn’t see any reason to stay personally”.

Tim’s place alienation toward Nailsea can be interpreted as a discontinuity across time in valued and preferred residence type (and the socially constructed representations associated with them). His prior life-place trajectory has proffered a predisposition for large urban settlement types, whilst Nailsea contravenes this pattern. Nailsea, characterised by Tim as ‘a rural kind of place’ and somewhere that ‘feels almost like a large village’, disrupts his prior place trajectory and plays a significant role in subduing any process of place attachment formation. This suggests that whilst continuation of settlement type can foster attachment to a place, discontinuity in settlement type following relocation can hinder this process, resulting in alienation and detachment from place (Feldman, 1990; Fried, 2000). It is particularly a lack of congruence between larger urban places (large towns and Cities) represented as vibrant energetic locales, and semi-rural types of place represented as ‘dead’ and ‘too quiet’ that informs Mark’s development of place alienation toward Nailsea.

Tim’s discontinuity in settlement type is combined with a poor life stage fit with Nailsea:

“I don’t see myself living here for the rest of my life, or at least not at this stage in my life...I think it might be nicer if you’ve got a family, if you’re retired or if you want the quiet life, you know? ...that’s not somewhere I want to be right now, I’d prefer to live somewhere like Bristol”.

In this quote, Tim represents Nailsea as somewhere that suits families or retirees. It is not the kind of place that is suited to or accommodates for people of Tim's age or life stage. This perceived lack of life stage fit further contributes to Tim's estrangement from Nailsea. He expresses preference for City life which he believes would provide greater congruency for someone of his life stage. Here, we see how Tim draws on generalised representations of particular types of places and their associated characteristics (i.e. Cities versus semi-rural kinds of place) in order to situate his own life-place trajectory and alienated relationship to Nailsea.

Those constructing the theme of narrative discontinuity in settlement type tended to relate negatively to Nailsea, evoking either the place alienated (as in Mark's case) or place relative variety of people-place relations, as in the case of Maggie. Maggie is a retiree who has lived in Nailsea for the last ten years. Upon moving to Nailsea, she experienced discontinuity of settlement type due to having lived most of her previous adult life in large towns and Cities, for which she had developed the active type of attachment. Yet she did not express feelings of alienation toward Nailsea, but instead held mixed sentiments about the place, recognising that despite the lack of 'vibrancy' and 'energy', living in Nailsea did provide favourable attributes such as 'room to breathe' and 'spaciousness'. Although discontinuity in settlement type did inhibit the attachment process, Maggie expressed ambivalence regarding her feelings to Nailsea rather than alienation, suggesting a less extreme response to the experience of discontinuity of settlement type.

These examples of discontinuity in settlement type are suggestive of existing literature on place disruption that show how relocation to places different in material appearance and amenity can contravene guidance principles of 'place-congruent' continuity and self-efficacy resulting in a decline in sense of community and weak bonds to new residence places (Speller & Twigger-Ross, 2009; Timotijevic & Breakwell, 2000; Twigger-Ross & Uzzell, 1996). In the case of this study, a lack of continuity of residing in valued types of place (i.e. Cities and large towns) described in positive terms (i.e. as places with 'buzz' and 'energy') and characteristic of a particular material appearance (i.e. densely constructed and populated), led to unfavourable experiences and

representations of Nailsea as 'dead' and 'too quiet' with resultant feelings of place alienation.

Interestingly, place-based representations attributed to Nailsea by place alienated and place relative participants tend not to include the nearby countryside around Nailsea. This might be because the surrounding countryside may not be important to participants that are weakly bonded and in some cases dislike the place. This may also relate to their particular fields of place experience over the life course, which, having been based largely upon urban environments may not have revolved as much around countryside settings.

- ***High residential mobility and placelessness*** is a life-place trajectory that culminates in the placeless variety of people-place relations to Nailsea and the surrounding countryside. It is a life-place trajectory characterised by high residential mobility over the life course, a lack of place attachment formation to former and present residence places, and a tendency toward non-territorial identity formation (Lewicka, 2011b).

Patricia is in her late-sixties and has lived in Nailsea for the last eight years with her husband. With a military father, she regularly changed residence place as a child, and this pattern continued during her adulthood when she decided, with her husband, to travel the world as a Christian missionary, eventually living in various locations throughout South-East Asia and Japan. When Patricia spoke of her earlier life she expressed a lack of rootedness, belonging or attachment to former residence places, suggesting that it was the constant process of relocating as a child and later as a Christian missionary that did not afford her the possibility of ever forming bonds with places:

“Well when I was a child we were moving every other year or so and I never spent long enough in a place to really get to know it, so I think that’s probably why I didn’t feel compelled to invest much emotion in places then because I knew it was all very temporary...that extended into my later adulthood when Andrew and I went off to South-East Asia, we were never in one place for more than a year or two, sometimes even less, but I think by then I’d been conditioned in such a way as to not really concern myself with places”.

When discussing her and her husband's life in Japan, Patricia's narrative account tended to revolve around bonding with people and cultural objects or practices, rather than with actual places:

"I think we formed a very strong bond when we were in Tokyo but that was with the Japanese people that we met. In each place, I think it's the people rather than the place that seem to be important to me...I think the only thing I miss about Tokyo is the winter sun and the bath because the Japanese bath is just something else...in simple terms it's the people. When I look back, when I think of Tokyo I think primarily of the people we met".

An important qualification made by Lewicka (2011b) is that placeless individuals tend to have a strong non-territorial identity, i.e. individuals identify strongly with the family, hobbies or profession rather than the place itself, and Patricia's narrative account above lends support to this finding. Patricia's reasons for moving to Nailsea were not steeped in a strong desire or yearning to live in the place, rather she expressed a lack of real attachment to Nailsea itself, again, emphasising the social bonds formed and the convenience of having transport infrastructures close at hand:

"I wouldn't say I'm rooted to the place, I don't really feel attached to Nailsea because of the way I am, because of my up-bringing I think, I think the experience of moving around so much when I was younger definitely marked me. The reason we came here (to Nailsea) I suppose is because we had no fixed roots in Britain, it didn't really matter where we went...we chose Nailsea because it has a station, it's near the motorway and it's near the airport so that if we wanted to get around we could...we've been here now 8 years and that's the longest I think we've been anywhere continuously. We like it here, but basically it's the people that are important for us".

When asked whether she would be comfortable moving again, Patricia felt that relocating was something she could certainly contemplate. An ability to adapt to new surroundings and places emerged as a prominent theme throughout Patricia's narrative accounts, suggesting that she had developed the requisite skills to adapt to a life of high residential mobility and could thus face the prospect of moving again:

“I mean as I say I would go and live wherever...we could contemplate a move if that sort of came up”.

Interestingly, Patricia compares herself with other residents of Nailsea who have lived in the place for a long time and have established family roots in the place, voicing the distinction between the ‘roots’ and ‘routes’ themes presented in a study by Gustafson (2001). Patricia is emblematic of the ‘routes’ theme – a type of person with a high degree of residential mobility, a seeming absence of attachment to places past and present, and the belief that movement and mobility are aspects of a life-place trajectory to be valued and equated with a certain open-mindedness. She distinguishes herself in this regard by contrasting herself to a type of person emblematic of the ‘roots’ theme – somebody with long-term stability in Nailsea, strong ancestral family ties and an aversion to the idea of relocating (those sharing the ‘*Traditional attachment and long-term residence*’ life-place trajectory:

“I still find it amazing that I meet lots of people who’ve lived here all their lives or whose family live just round the corner and who would never dream of living somewhere where their family were not almost immediately available... if you’ve always been in one place it’s very difficult to contemplate going to a place which is very different whereas if you’ve moved around a lot, usually you’ve got a much wider view of things”.

Interestingly, Patricia draws on socially shared representations of ways of relating to place (i.e. as those who are ‘rooted’ and those, like herself, with ‘no foxed roots’) that are shared across groups and society in order to situate her own personal life-place trajectory of apparent non-rootedness and lack of attachment to residence places across her life course.

- Points of conclusion for section 5.2;

In attempts to go beyond ‘structural’ approaches to the study of varieties of people-place relations and place-related symbolic meanings (Scannell & Gifford, 2010; Lewicka, 2011b; Devine-Wright, 2014; Hernandez et al., 2014) that tend to adopt cross-sectional research designs, this study sought, as outlined in research aims and related questions one, two and three, to investigate patterns of people’s identification with varieties of people-place

relations across the life course (named 'life-place trajectories'), the processes informing or underlying these life-place trajectories, and the ways in which they are seen to inform identification with specific types of people-place relation and place-related symbolic meanings to the current residence place (Nailsea and the surrounding countryside).

Whilst some studies (Feldman, 1990; Hay, 1998; Fried, 2000; Gustafson, 2001; Chow & Healey, 2008) foreground change and dynamics of attachment and detachment to place, there has been a dearth of research that has investigated the dynamic (or non-dynamic) nature of varieties of people-place relations across the life course (Devine-Wright, 2014). This study employed the use of narrative interviews to elicit narrative accounts of Nailsea residents' people-place relations over the life-course.

The study shows that an understanding and appreciation of participants' 'life-place trajectories' (the patterns of people's identification with varieties of people-place relations across residence places and over the life course), construed through the elicitation of narrative accounts, informed the elaboration of particular varieties of people-place relations and place-based symbolic meanings to Nailsea and surrounding countryside areas. This study therefore makes a novel contribution to our understanding of the development of varieties of place attachment and non-attachment (and place-related symbolic meanings) to the current residence place, showing that individuals' personal life-place trajectories are typically embedded within and interact with wider socio-cultural meanings (or social representations) relating to types of place (i.e. a City or semi-rural kind of place), characterisations of place, and to divergent ways of relating with place over the life course (i.e. rooted versus non-rooted types relationship to places generally). These objectified social representations were at times seen to be expressed in the form of metaphors or tropes which enabled individuals to situate their own personal life-place trajectories and relations to place(s) within a socio-cultural context of meanings shared across groups and societies.

Life-Place Trajectories	Varieties of people-place relations to Nailsea	Social Representations of Place	
		Representations of Nailsea	Representations of the countryside around Nailsea
- Traditional attachment and long-term residence	Traditional Attachment	Secure/Safe Familiar Ancestral ties	Scenic, but replete with existing electricity infrastructure
- Home Core traditional-active attachment	Traditional Attachment Traditional-Active Attachment	Secure/Settled Home Social support	
- Active Attachment and continuity in settlement type	Active Attachment	Semi-rural Friendship Nice neighbours Community	Natural Scenic Picturesque Recreation
- Discontinuity in settlement type and place estrangement	Place relative Place Alienated	Inadequate facilities Conservative Isolated Boring	Picturesque (Un-developed simple description)
- High residential mobility and placelessness	Placeless	Adequate facilities Family	None

Table 4.2: Summary table for findings and discussion section 5.2

5.3 Life-Place trajectories informing experiences of and responses toward the HPC power line proposal:

This third findings and discussion section attends to research aims and related questions five and six, and presents findings that attempt to outline the ways in which the aforementioned life-place trajectories inform participants' experiences of and responses towards the Hinckley Point C power line proposal. In particular, this section seeks to outline the ways in which particular social representations of the countryside area around Nailsea shapes the ways in which participants interpret and objectify the HPC power line proposal and its likely impact on this locale. What appeared to be pertinent in understanding participants' responses to the HPC power line proposal was the way in which particular life-place trajectories informed distinct ways of representing the countryside around Nailsea, which in turn were more or less congruent with objectified representations of the proposed power line (Liu, 2004; Batel & Castro, In Press).

Following thematic narrative analysis of the interview transcripts, three sub-themes of the ways in which life-place trajectories informed responses to the power line proposal emerged, and these shall now be outlined using supporting narrative interview extracts. These findings are summarised in table 4.3 at the end of this section

- Life-place trajectories informing traditional/traditional-active attachment and congruence between place and project-based representations;

As previously established, participants identifying with the traditional and traditional-active varieties of people-place relations tended to exhibit life-place trajectories where all or most of their lives had been spent living in Nailsea. Along with a strong positive bond to the place, these participants tended to represent the countryside around Nailsea as replete with existing electricity infrastructure:

“You know I’ve lived here all my life, I grew up here, and for as long as I can remember there were pylons in the countryside around Nailsea, they’re nothing

particularly new...I think the countryside around Nailsea is beautiful, but the pylons that are there already have always been part of it” (Jenny).

The interview extract above suggests that those, like Jenny, who have grown up in Nailsea into adulthood and whose lives are centred in the place, are more likely to have known about and become aware of the existing 132kV power lines that run through the Western and Northern parts of the surrounding countryside. These participants are likely to have become familiar with the common-place visual presence of existing electricity infrastructure, seeing it as blending into the nearby countryside locale.

Whilst representing the surrounding countryside as replete with existing electricity infrastructure, these participants tended to objectify and represent the proposed power line as a ‘familiar’ form of infrastructure that was seen to fit with representations of the nearby countryside as containing existing electrical infrastructure that has ‘always been part of’ this locale:

“It’s not going to be something that unusual you know because we’ve already got pylons around Nailsea...I mean people are used to seeing pylons in the countryside, they’re nothing out of the ordinary...I don’t see it (the HPC power line proposal) as having much of an impact on the outlying countryside, no, I’m not all of a sudden going to be saying ‘Oh, look at that ghastly thing, don’t build it here”” (Caroline).

The above interview extract suggests that those participants with particular life-place trajectories (*Traditional attachment and long-term residence* and *Home Core Traditional-Active Attachment*) view the power line proposal as a familiar and commonplace form of infrastructure having been assimilated into existing representations of the surrounding countryside as replete with existing electricity infrastructure and industrial in nature. This aligns with the process of symbolic coping implicit in social representations theory, where the power line proposal was objectified and thus represented as a ‘familiar’ symbol of the countryside around Nailsea (and arguably English countryside in general), based on existing representations of the countryside as replete with such infrastructure and technology. The power line proposal was thus seen to fit with co-constructed meanings of the nearby countryside and these participants tended to accept the power line proposal on these grounds.

The above finding – where interpretations of the proposed power line are seen to fit with representations of the countryside around Nailsea – supports existing studies (McLachlan, 2009; Venables et al., 2012) that have found that when a proposed technology is seen to fit with symbolic place-related meanings – in other words, when a proposed technology is seen to be ‘in place’ rather than ‘out of place’ (Cresswell, 2004) - then acceptance or support of proposed place change is likely to ensue. A study by Venables et al (2012), for instance, showed that attitudes to proposed new nuclear power facilities in the UK were shown to be dependent on the extent to which existing power plants in the area were perceived to contribute toward the sense of place of nearby local communities. Participants who saw an existing power station as a ‘familiar’ and ‘non-threatening’ aspect of the place were more accepting of a new proposed nuclear power facility.

Furthermore, a study by McLachlan (2009) found that particular symbolic logics of fit between place and project meanings were seen to inform support and opposition toward the Wave Hub in Cornwall. Findings showed that when the technology was seen to fit with place-based symbolic meanings - for instance, when symbolic interpretations of the technology (“Technology at one with Mother Nature”) were seen to fit with place-based meanings (“Place as nature”) – support was likely to ensue.

The finding from this study is novel in that perceived fit between representations of the countryside and power line proposal amongst some narrative interview participants was shown to be informed by their life-place trajectories. Those having grown up and lived most of their lives in Nailsea were shown to be more familiar with existing electricity infrastructure in the outlying countryside and were thus more likely to represent the HPC power line proposal as a recognisable and non-affecting form of place change.

Those sharing the aforementioned life-place trajectories also did not report having undergone experiences of disruption to existing place bonds (i.e. disruption of the traditional or traditional-active place bonds) as a result of the proposed power line. These participants were seen to have developed strong bonds to Nailsea based on autobiographical insiderness, positive experiences of life in Nailsea, representations of the place as a valued ‘home’ centre, and a

largely taken-for-granted bond. When asked whether the proposed power line had changed the way he felt towards Nailsea, Gareth, an adherent of the 'Home Core Traditional-Active Attachment' narrative theme, commented:

"No it hasn't because as I say it's not something that really bothers me a great deal. It's not like I'm devastated that there might be a new power line going through the area...they have ones already going through the countryside to the West of Nailsea so for me I don't see it making a great difference...so no, I mean I'm happy living here and I don't see this power line changing that...there are too many nice things about living here".

This interview extract suggests that for those whose lives have been centred in Nailsea across the life course, the power line proposal is not deemed a significant or noteworthy enough form of place change to alter or disrupt existing traditional-oriented forms of attachment to the place. This would suggest that the likelihood or propensity that people's traditional or traditional-active forms of place attachment will be disrupted by the power line proposal is informed by their life-place trajectories.

This finding suggests that in contrast to research proposing that forms of place change disrupt existing place bonds and lead to place-protective behaviours (such as opposition toward proposed energy infrastructure developments) (Brown & Perkins, 1992; Devine-Wright, 2009), those identifying with traditional and traditional-active varieties of attachment to Nailsea may in fact be less sensitive (or more resistant) to proposed place change due to their formation through particular life-place trajectories. Life-place trajectories centred in Nailsea were seen to result in strong unself-conscious varieties of attachment (traditional or traditional-active attachment) which may render the beholder less reflective of and thus less vulnerable to potential disruptive impacts of place change on existing place bonds.

These life-place trajectories were also seen to inform positive representations of Nailsea as a secure, supportive and valued 'home' core amongst traditional/traditional-active participants. The apparent co-dependence of participants' strong bonds to Nailsea with these valued aspects of Nailsea would suggest that place change that was not deemed to be significant enough in undermining these valued aspects of the place would thus be unlikely to

impact negatively or weaken pre-existing place bonds or traditional varieties of place orientation.

- Life-place trajectory informing active attachment and lack of fit between place and project-based representations;

Actively attached participants tended to display a life-place trajectory where continuity across a semi-rural settlement type was consciously sought. These participants had usually spent most of their lives living in semi-rural locations, placing great value on the aesthetic beauty of nearby countryside areas and typically using these locales for recreational activities. By relocating to Nailsea, actively attached participants sought continuity in a semi-rural settlement type, emphasising the scenic beauty of the countryside around Nailsea. Subsequently, these participants tended to represent the surrounding countryside as 'scenic', 'picturesque' and 'natural', interpreting and objectifying the proposed power line as likely to have a negative industrialising impact on this locale and opposing the project on these grounds:

"...it's going to be incredibly ugly, and out of proportion, and industrial and all the things that you don't expect to see in the countryside...it's going to be out of character with the whole of the surrounding area, with somewhere that's natural..." (Janice).

For Janice, the power line proposal symbolises all that one would not expect to see in a countryside setting, including its capacity to 'industrialise' and render surrounding countryside areas unsightly and unenjoyable for recreational activities. In the following quote, Janice characterises existing electricity infrastructure in the area as 'quite alien', emphasising the extent to which such infrastructure is seen as being 'out of place' in a non-industrial and natural countryside setting:

"I think it's summed up by saying that they are structures which are inherently industrial really...it's the thing about once you've got to the top of the line, it's going through Avonmouth, well that's an industrial area, so the fact that there are pylons there is unexceptional, there're all sorts of things there that you wouldn't want to have in the countryside...there are all sorts of structures and

edifices that you would really prefer were not in the countryside but they're fine because it's got an industrial character, whereas these are quite alien...".

Here, Janice evokes incongruence between objectified representations of the proposed power line as 'industrial' and 'alien' - which is deemed 'ugly' and 'out of proportion' - and her image of the countryside around Nailsea as 'natural' and subsequently devoid of industry. This aligns with the process of objectification inherent in social representations theory, where the power line proposal is objectified and thus represented in the form of metaphor ('industrial' and 'alien') and is seen to be symbolically out of place in a countryside locale that is based on co-constructed representations of the 'natural' and 'picturesque'. Whilst the power line proposal has, in this case, been objectified as 'industrial' - thus forming part of these participants' 'common sense' understandings of the project - it has been objectified as symbolically out of character with existing social representations of the countryside as 'natural'.

Janice further presents the view that the English countryside generally can be likened, metaphorically speaking, to an 'old Cathedral' that 'has value in its own right' and needs to be preserved in its 'natural' state for the benefit and enjoyment of future generations. In this sense, Janice constructs the countryside around Nailsea as a locale that needs protecting from encroachment by industrial-type technology and infrastructure. Here, both the power line proposal and electricity infrastructure more generally is objectified metaphorically and symbolically as 'industrial' in nature which is seen to pose a threat to the preservation of the nearby countryside and English countryside more generally:

"...it's about, as I say, that the countryside is valued in its own right, you've only got to look at the speech that Prince Charles made earlier this year in January to the Oxford Farmers Union about treating the countryside as though it were an old cathedral, somewhere to be preserved, and for him, the fact that he's got a grandchild on the way means he's thinking about future generations. The countryside is inherently important, not only for the people who live here but also for the people who come here in order to escape the towns, you know, it does have a value in its own right...things like getting away from hustle and bustle, quiet, tranquillity, nature, birds, big skies, you know, all of those things".

This finding supports existing research (McLachlan, 2009; Devine-Wright & Howes, 2010; Anderson, 2013) showing that a lack of congruence between representations of a place and interpretations of place change can engender opposition and incite forms of place-protective action.

A study by McLachlan (2009) found that opposition to a wave hub in Cornwall stemmed from a lack of fit between symbolic meanings attributed to place and technology. A 'symbolic logic of opposition' arose when the wave hub was seen as an 'experimental' form of technology in a place seen as 'natural'. A study by Devine-Wright and Howes (2010) investigating public acceptance of an off-shore wind farm proposal showed negative emotions and attitudes were associated with a lack of fit between representations of a coastal town as natural and restorative, and the proposed wind farm as 'monstrously damaging' and industrialising the area. Anderson (2013) further showed how respondents representing the rural landscape in North-West Tasmania in terms of 'Nature conservation' consistently represented plantation forestry (a more recent land-use introduced in the region) as a negative process leading to environmental and social threat. In addition, a study by Venables et al. (2012) found that participants that saw an existing power station to sit in contrast to the local landscape perceived as 'rural' and 'largely unspoiled' tended to oppose the siting of a new nuclear power station in the area.

The finding is novel in that incongruence between representations of the countryside (as natural) and power line proposal (as industrial) amongst some narrative interview participants (resulting in opposition towards the project) was shown to be informed by their particular life-place trajectory (Active Attachment and continuity in settlement type). This suggests that studies seeking to investigate congruence between place and project meanings should be sensitive to participant's life-place trajectories. In this case, the power line proposal is seen to have an industrialising impact on the nearby countryside, resulting in visual intrusion and a form of place change deemed out of character with this locale. Rather than familiarising the proposed power line, actively attached participants tended to vilify the project, seeing it as ill-suited and a threat to a place valued for its scenic and natural qualities.

Interestingly, there were no experiences of disruption to existing place bonds reported amongst actively attached participants. This occurrence might have been expected given a study by Devine-Wright (2013a) that showed active attachment to be a significant predictor of objection toward the HPC power line proposal. This might suggest that the perceived fit between representations of the countryside around Nailsea and interpretations of the power line proposal was a more salient and dominant feature in informing opposition to the proposed power line amongst actively attached residents. This issue is taken up in chapter seven where the relative importance of both place (varieties of people-place relations to Nailsea and representations of the surrounding countryside) and project-based factors in explaining stance to the proposal is established using multiple linear regression analysis.

- Life-place trajectories informing varieties of non-attachment and responses to the HPC power line proposal;

For those participants whose life-place trajectories informed varieties of non-attachment to Nailsea and the surrounding countryside, perceived fit between representations of the surrounding countryside and interpretations of the power line proposal did not emerge as a prominent theme(s). Whilst some place relative participants spoke positively of the surrounding countryside, this was largely undertaken in simplistic and descriptive terms. Previous findings and discussion sections in this chapter have shown that those identifying with varieties of non-attachment to place tended to have weak or an absence of attachment to both Nailsea and the surrounding countryside, and tended not to evoke representations with regards to the nearby countryside. As one place alienated participant commented:

“...as I say, I don’t really know much about it (the power line proposal) and for me it’s not really a big deal at all...I mean I’m not particularly interested in that kind of thing to be honest with you”.

This interview extract suggests that non-attached participants may be less likely aware of or interested in the potential positive or negative impacts of the proposed power line on the character of the nearby countryside.

Whilst perceived fit between countryside and project-related symbolic meanings and disruption (or enhancement) of varieties of people-place relations did not emerge as prominent themes amongst non-attached participants, some opposition toward the proposed power line was seen to arise based on factors relating to an unfair planning process, potential health risks stemming from EMF (electro-magnetic field) exposure, and an observed imbalance between local project costs and benefits. The apparent role of 'project-based' factors in informing opposition to the proposed power line is thus investigated in the next empirical study chapter.

Life-Place Trajectories	Varieties of people-place relations to Nalisea	Representations of Nalisea	Representations of the countryside around Nalisea	Interpretations of HPC power line proposal	Stance towards HPC power line proposal
Traditional attachment and long-term residence	- Traditional Attachment	Secure Safe Familiar Ancestral ties	Scenic, but replete with existing electricity infrastructure	Familiar form of infrastructure in countryside locale/in Place	Project Acceptance
Home Core traditional-active attachment	- Traditional Attachment - Traditional-Active Attachment	Secure Settled Home Social support			
Active Attachment and continuity in settlement type	- Active Attachment	Semi-rural Friendship Nice neighbours Community	Natural Scenic Picturesque Recreation	Industrialising countryside locale/Out of Place	Project Opposition
Discontinuity in settlement type and place estrangement	- Place relative - Place Alienated	Inadequate facilities Conservative Isolated Boring	Picturesque (Un-developed simple description)	None	Project Opposition (on project-based grounds)
High residential mobility and placelessness	- Placeless	Adequate facilities Family	None		

Table 4.3: Summary table for findings and discussion section 5.3

This third findings and discussion section shows that particular life-place trajectories can usefully inform our understandings of participants' experiences of and responses to the proposed power line.

The findings show that two life-place place trajectories (*Traditional attachment and long-term residence* and *Home Core Traditional-Active Attachment*) were seen to inform objectified representations of the power line proposal as a 'familiar' form of infrastructure and thus congruent with a countryside locale viewed as replete with existing electricity infrastructure, supporting existing research (McLachlan, 2009; Venables et al., 2012) that suggests congruence between place and project-related symbolic meanings can garner project acceptance.

Furthermore, findings showed that the '*Active Attachment and continuity in settlement type*' life-place trajectory was seen to inform objectified representations of the power line proposal as industrialising a 'natural' countryside area valued for its aesthetic beauty and its use for recreational activities, thus supporting existing research (McLachlan, 2009; Devine-Wright & Howes, 2010; Venables et al., 2012, Anderson, 2013) that suggests opposition to proposed and actual place change can arise due to place change being construed as out of character with a place.

A lack of reported disruption to existing place bonds (varieties of place attachment to Nailsea and the surrounding countryside) suggests that perceived fit between interpretations of the proposed power line and representations of the countryside around Nailsea may be more salient to participants in shaping responses to the project.

6. Conclusion:

- To date, research on place attachment (and related concepts such as varieties of people-place relations, place identity and place-related meanings) has tended to focus on unearthing qualities of the product, rather than the process(es) that guide attachment or detachment to place(s). This structural approach, whilst insightful, is limited to the extent that it says little about the dynamic (or non-dynamic) nature of people's varieties of people-place relations over time, and the underlying processes contributing to attachment or

detachment from place(s) over the life course of individuals (Devine-Wright, 2014).

In response, this study sought, with the use of narrative interviews, to investigate the patterns of people's identification with varieties of people-place relations across the life course of individuals (termed 'narrative themes' or 'life-place trajectories'), the processes informing or underlying these life-place trajectories, and the ways in which they were seen to inform identification with specific types of people-place relation and place-related symbolic meanings to the current residence place (Nailsea and the surrounding countryside). In so doing, the study further sought to confirm Hummon (1992) and Lewicka's (2011b) existing typology of people-place relations and attempt to reveal novel varieties of place orientation.

In a first instance, findings support the existing five-partite typology of people-place relations proposed by Hummon (1992) and Lewicka (2011b), and propose a novel variety comprising components from both the traditional and active varieties of place attachment, named 'Traditional-Active Attachment'. Not only does this build upon the existing typology, it also suggests that some people may not fall neatly into any one of the preceding five varieties, instead, identifying with particular elements of place orientation and thus blurring the boundaries between what have up till now been conceptualised as relatively distinct ways of relating to one's residence place. Those expressing this place orientation evoked life-place trajectories of growing up in Nailsea, relocating elsewhere for short periods of time, and ultimately returning to Nailsea following negative experiences in the former residence place(s) and seeking familiarity, stability and a social support network in Nailsea. It may be that this life-place trajectory, whilst leading participants to take the current residence place for granted, spurred a greater awareness of the positive facets offered by life in Nailsea (e.g. familiarity, stability, continuity, a social support network) and thus proffered a greater propensity amongst these participants to stay aware of the goings-on and the positive features of life in Nailsea. Further research that attempted to understand in more depth this apparent link between the 'Home Core and traditional-active attachment' life-place trajectory and the 'traditional-active' place orientation would be valuable.

In a second instance, this study shows that an understanding and appreciation of participants' 'life-place trajectories' (the patterns of people's identification with varieties of people-place relations across residence places and over the life course), construed through the elicitation of narrative accounts, informed the elaboration of particular varieties of people-place relations and distinct place-based symbolic meanings (social representations) of Nailsea and surrounding countryside areas. For example, those participants who experienced discontinuity across generalised types of settlement (the 'Discontinuity in settlement type and place estrangement' life-place trajectory) by relocating to Nailsea, tended to feel alienated toward life in the place because features of life in Nailsea were ultimately deemed incongruent with favoured attributes of life in Cities or large towns. This study therefore makes a novel contribution to our understanding of the development of varieties of place attachment and non-attachment (and place-related symbolic meanings) to the current residence place by showing that patterns of people's varieties of people-place relations *across the life course* (their life-place trajectories) inform the development of subsequent people-place relations to the current residence place - a hitherto under-researched area of study.

This study also importantly shows how individuals' personal life-place trajectories and varieties of people-place relations to Nailsea and the surrounding countryside were embedded and situated within wider socio-cultural level meanings (or social representations, that were objectified in the form of metaphors and tropes) relating both to specific and generalised places, as well as to ways of relating emotionally to place generally (i.e. as 'rooted' or non-rooted to place). This PhD research set out specifically to address the limitation of individualistic socio-cognitive oriented research in much of the academic work on people-place relations in environmental and social psychology, by attempting to acknowledge the socio-cultural level inherent in social representations theory and thus bring to the fore co-constructed social representations of place and relations to place generally (Liu, 2005; Batel & Castro, In Press).

- Amongst research investigating place-based approaches to understanding responses to energy infrastructure development proposals (Vorkinn & Riese, 2001; Devine-Wright & Howes, 2010; Devine-Wright, 2011a, 2011b, 2013a),

there has been a dearth of research that investigates the ways in which people's life-place trajectories inform and shape their experiences of and responses to proposed place change (in particular, a high-voltage power line proposal). This study therefore sought to explore the ways in which particular life-place trajectories (and subsequent identification with specific varieties of people-place relations and place-related symbolic meanings to Nailsea and surrounding countryside) were seen to inform experiences of and responses to the Hinckley Point C power line proposal. In particular, this research aimed to explore the symbolic meanings ascribed to the countryside around Nailsea and their perceived congruence with meanings attributed to the proposed power line.

This study is novel in finding that particular life-place trajectories were seen to inform participants' representations of the countryside around Nailsea, which in turn shaped divergent interpretations of the proposed power line, resulting in varying degrees of congruence between social representations of the countryside and the power line, and varying stance towards the project. This was the case for participants identifying with the traditional/traditional-active and active varieties of people-place relations. Data analysis suggested that the degree of congruence between place and project-related meanings amongst these participants - as shaped by particular life-place trajectories - was more salient in determining responses to the HPC power line proposal than experiences of disruption to existing place bonds (of which none were reported).

Those participants shown to be familiar with existing electricity infrastructure - stemming from a life-place trajectory centred in Nailsea - were more likely to represent and objectify the HPC power line proposal as a recognisable, familiar and acceptable form of place change, supporting existing research (McLachlan, 2009; Venables et al., 2012) that shows fit between place and project-related symbolic meanings can garner project acceptance. Whilst disruption of the traditional and traditional-active place relations was not evidenced, findings suggest that strong life-long bonds to Nailsea and perceived fit between interpretations of the proposed power line and representations of nearby countryside may have mitigated disruptive experiences of the project upon emotional place bonds.

Those participants evoking a life-place trajectory emphasising continuity across a semi-rural settlement type and identifying with active attachment to former and present residence places, tended to interpret and objectify the power line proposal as industrialising a countryside area valued for its aesthetic natural beauty and its use for recreational activities, thus supporting existing research (McLachlan, 2009; Devine-Wright & Howes, 2010; Venables et al., 2012, Anderson, 2013) that suggests opposition to proposed or actual place change can arise due to a particular form of place change being construed as out of character with a place.

This study usefully demonstrates the process of objectification inherent in the process of symbolic coping in social representations theory, showing that particular ways of objectifying and representing the power line proposal through the use of metaphorical and symbolic meanings (i.e. objectified representations of the proposal as 'familiar' or 'industrial'), were seen to arise based on existing social representations of the countryside around Nailsea and representations of English countryside generally. Amongst those representing the nearby countryside as replete with existing electricity infrastructure, the proposed power line was objectified as 'familiar' and thus seen as 'in place' (Cresswell, 2004). Conversely, amongst those representing the nearby countryside as both 'natural' and as an 'old Cathedral', the proposed power line was objectified as 'industrial' and thus out of place in this locale. In both cases, the process of social representation rendered the 'unfamiliar, or unfamiliarity itself, familiar' (Moscovici, 1984:24), resulting in divergent social representations of the HPC power line proposal.

Those participants identifying with life-place trajectories informing varieties of non-attachment to Nailsea did not report threat (or enhancement) to place-related symbolic meanings, or disruption to varieties of non-attachment stemming from the proposed power line. This could be attributed to already negative and weak forms of attachment to Nailsea and the omission of representations of the countryside surrounding Nailsea. Future research could *explore more deeply* the role that varieties of non-attachment to place play in shaping experiences of and responses to proposed forms of place change in order to verify these findings.

- Whilst perceived fit between countryside and project-related symbolic meanings and disruption (or enhancement) of varieties of people-place relations did not emerge as prominent themes amongst non-attached participants, some opposition toward the proposed power line *amongst non-attached participants* was seen to arise based on factors relating to an unfair planning process, potential health risks stemming from EMF (electro-magnetic field) exposure, and an observed imbalance between local project costs and benefits. These are issues that will be explored in the next empirical study chapter, where a series of focus group interviews are employed to investigate the role of project-based factors (such as procedural and distributive justice) in shaping responses to the HPC power line proposal. The next empirical study chapter will also attempt to build upon findings from study one by; (1) investigating the ways in which social representations of attachment and non-attachment to place generally are drawn upon by focus group interviewees in order to inform their own personal socio-psychological place relations (i.e. life-place trajectories and varieties of people-place relations) to Nailsea and the surrounding countryside; (2) exploring more deeply the degrees of congruence between social representations of the countryside surrounding Nailsea (and the English countryside generally) and interpretations of the HPC power line proposal, and related responses to the project.

7. Limitations of this study:

Whilst this narrative interview study conceptualised participants' personal life-place trajectories and varieties of people-place relations to the current residence place as embedded and situated amongst wider social representations – narrative interviews appeared to be better suited to an in-depth focus on individuals personal place relations and slightly less well suited to investigating the socio-cultural level of social representations. This methodological limitation will be attended to in the next empirical study chapter, where focus group interviews, with their focus on inter-personal communication between research participants - the 'thinking society in miniature' - are seen as better suited to bringing out the social representations held by participants in a group setting concerning ways of relating to place generally, and thus for situating their own personal place relations across the life course (Lauri, 2009:650).

An additional methodological limitation of this study relates to the reliance, in large part, upon the faculty of memory during the narrative interview. Whilst use of a pre-interview task was utilised in order to help participants in the task of tracing out their life-place trajectories and as a device for reminding participants during the actual interview, some older residents expressed some difficulties in recalling their feelings and relationships to places from long ago (for example, childhood residence places). This therefore reduced the richness of the data and narrative accounts in certain small parts of some interviews, thus reducing slightly the possibility of undertaking in-depth thematic narrative analysis of some sections of interview transcripts relating to old-aged Nailsea residents.

A limitation relating to the design of the interview guide is that it was not well able to probe into the role of nostalgia for past residence places amongst interview participants. The ways in which nostalgia for past residence places might then have been seen to hinder or facilitate the processes of attachment or detachment (or the development of particular varieties of people-place relations) from the current residence place could not be established in any great depth. Whilst Lewicka (2014) proposes that nostalgic autobiographical memories may help to overcome spatial discontinuities and facilitate bonding to a new residence place, future research could investigate the role of nostalgia for past residence places in informing processes of attachment and detachment from place and changes in varieties of people-place relations across residence places and over the life course of individuals.

Chapter Five: Using focus group interviews to explore social representations of people-place relations and the co-construction of project-related factors

1. Introduction:

In attempts to go beyond NIMBY-type assumptions in understanding public responses to the siting of energy infrastructure proposals, Devine-Wright (2009) has proposed a 'place-based' approach which highlights the roles of place attachment and place-related symbolic meanings in shaping individual and collective responses to such projects.

The previous empirical study chapter sought to investigate Nailsea residents' life-place trajectories, the processes underlying these trajectories, and the ways in which they inform people's place relations to Nailsea. The study further sought to explore how particular life-place trajectories informed people's experiences of and responses to the HPC power line proposal, in South-West England. A narrative interview methodology was employed which, whilst focusing upon in-depth individual narrative accounts, was able to highlight the ways in which personal life-place trajectories and varieties of people-place relations were embedded and situated within wider socio-cultural meanings (or representations) of place and ways of relating to place emotionally.

This narrative interview study had a number of key findings. Firstly, findings supported the existing five-partite typology of varieties of people-place relations developed by Hummon (1992) and Lewicka (2011b), and proposed a novel variety (named 'Traditional-Active Attachment') comprising components from the traditional and active forms of place attachment. Second, findings pointed to the ways in which five specific life-place trajectories informed participants' identification with particular varieties of people-place relations, and their attribution of social representations of Nailsea and the surrounding countryside. Third, the findings showed that people's responses to the HPC power line proposal were shaped by their life-place trajectories and the ensuing fit between representations of the countryside around Nailsea and interpretations of the power line project.

This second study seeks to build on some of the findings from study one utilising a series of five focus group interviews with residents of Nailsea. Whilst it was very informative to utilise narrative interviews to investigate and focus in-depth upon individuals' life-place trajectories and people-place relations to Nailsea and the surrounding countryside, they appeared to be slightly less well suited to opening up the socio-cultural context within which people's life-place trajectories and varieties of people-place relations were embedded (even though they were able to elicit this socio-cultural context). It was therefore deemed appropriate in this second empirical study to employ a more inter-subjective method (focus group interviews) that would enable to better explore the socio-cultural meanings (or social representations) relating to attachment and non-attachment to place(s) generally, within which Nailsea residents' personal place relations are embedded. Lauri (2009:650) highlights the usefulness of this method for investigating social representations when she states: 'The focus group is the thinking society in miniature and therefore it is ideal for bringing out the social representations held by participants on complex issues...'. This method is thus deemed well-suited to further exploring divergent co-constructions of the countryside around Nailsea and project-based factors shaping responses to the HPC power line proposal.

The key research aims for this study will be outlined in more detail, with accompanying research questions, in section 3 of this chapter, and will be situated within existing literature in the forthcoming critical literature review section.

2. Critical literature review:

This section will undertake a summarised critical literature review of existing research on people-place relations, highlighting the lack of research adopting a socio-cultural perspective to the study of place attachment, and the relative dearth of qualitative-based research investigating the role of 'project-based' factors (i.e. those relating to features of the actual infrastructure and perceived positive and negative impacts, perceptions of social justice, and trust in social actors) shaping responses to the Hinckley Point C power line proposal. Recognition of particular research gaps are informed not only by limitations of existing research, but also by attempts to build on findings from the preceding

narrative interview study. Specific research aims and accompanying research questions are presented in section 3 of this chapter.

2.1 Social Representations Theory and the study of people-place relations;

As discussed in the literature review chapter, research on people-place relations within Environmental and Social psychology has tended to adopt an individualistic socio-cognitive approach, seeing concepts such as place attachment and place identity as 'deep-seated, internalised' cognitive constructs 'discovered in the heads of individuals' (Dixon & Durrheim, 2000; Di Masso et al., 2014). Attempts to engage with the socio-cultural level of analysis in the study of people-place relations have involved a discursive approach (Dixon & Durrheim, 2000) and the adoption of a social representations theory lens in the study of place-related symbolic meanings and their degree of congruence with interpretations of proposed and actual place change (Devine-Wright, 2009, 2011a; Devine-Wright & Howes, 2010; Anderson, 2013).

This PhD thesis also adopts a social representations theoretical framework to the study of Nailsea residents' people-place relations, seeing individuals' personal life-place trajectories and varieties of people-place relations as situated within and informed by wider socio-cultural level meanings (or social representations) of place and of general ways of relating emotionally to place(s). However, there has been a relative dearth of research that adopts such a social representations theory lens to investigating wider social representations of attachment and non-attachment to place generally and the ways in which these social representations are used to situate individuals' own personal varieties of people-place relations over the life course.

There was some indication from findings in the previous empirical study chapter that people's life-place trajectories and varieties of people-place relations to Nailsea and the surrounding countryside were situated within wider socio-cultural meanings (or representations) of place, as well as relationships with place generally. For example, those narrative interviewees having lived most, if not all of their lives in Nailsea drew on shared notions of 'home' to characterise Nailsea as a site of security, familiarity and sanctuary (Tuan, 1974; Relph, 1976; Manzo, 2003, 2005). Another example where a particular type of place or environment was seen to be 'in your genes', showed how socially shared

biological metaphor was used to accentuate active attachment to a semi-rural settlement type. Elsewhere, use of the idiomatic phrase 'it's just bricks and mortar' was drawn upon to support a life-place trajectory exemplified by placeless relations to past and present residence places. Furthermore, the use of the word 'rooted' and the phrase 'to put down roots' were socially shared representations of place attachment that were drawn upon to qualify participants' personal types of attachment to Nailsea and the surrounding countryside.

Given the lack of research into the ways in which social representations of place attachment and non-attachment at the general socio-cultural level are drawn upon to frame individuals' personal varieties of people-place relations at the place-specific level, and based on indicative findings from study one outlined above, this study seeks to explore further the ways in which wider socio-cultural representations of attachment and non-attachment to place are evoked and drawn upon (particularly through the use of metaphor) by individuals to situate their own personal life-place trajectories and varieties of people-place relations to Nailsea and the nearby countryside, thus building on findings from study one.

2.2 Perceived fit between representations of place and technology infrastructure proposals;

Studies that investigate congruence between representations of place and interpretations of energy technology infrastructure have shown that when a technology is seen to fit with representations of a place, then acceptance and support is likely to ensue (McLachlan, 2009, Venables et al. 2012). However, when a technology is seen to be incongruent with the character of a particular place, then objection has been shown to result (McLachlan, 2009; Devine-Wright & Howes, 2010; Anderson, 2013). Findings from the preceding narrative interview study found that particular life-place trajectories were shown to inform people's representations of the surrounding countryside and resulting social representations of the HPC power line proposal. Those having lived most of their lives in Nailsea tended to objectify and represent the countryside around Nailsea as replete with existing infrastructure and objectified the power line proposal as an acceptable and *familiar* form of infrastructure. Those that had moved to Nailsea as adults from semi-rural settlements tended to objectify and

represent the surrounding countryside as natural, scenic and picturesque, and interpreted the power line negatively as *industrialising* this countryside locale.

The role of people's life-place trajectories was thus found to be important in determining congruence between place and project-based meanings. In addition, degree of congruence between representations of the surrounding countryside and the proposed power line was found to be a highly salient factor in shaping responses toward the project. In light of this apparent salience and an apparent lack of research investigating congruence between place and project-related meanings in the context of a transmission line proposal, this study seeks to build on findings from study one by exploring further the divergent representations of the countryside around Nailsea and their congruence with objectified social representations of the HPC power line proposal. In so doing, this study will attempt to show how co-constructed place and project-related representations are construed through social interaction utilising focus group interviews amongst Nailsea residents, thus addressing a key critique of individualistic socio-cognitive level analyses of place-related meanings that are unable to account for the source of such meanings (Stedman, 2002; Devine-Wright, 2009).

2.3 The role of project-based factors in shaping responses to infrastructure development proposals;

One strand of research has investigated the role of 'project-based' factors in shaping responses to energy infrastructure development proposals (Lima, 2006; Devine-Wright et al, 2010; Cotton & Devine-Wright, 2011a; Devine-Wright, 2011b, 2013a). As outlined in the Literature Review of chapter two, research into the fairness of decision-making processes (procedural justice) and the fair allocation and distribution of resources (distributive justice) have been shown to influence responses to proposed infrastructure developments (Lima, 2006; Mannarini et al, 2009). Studies mainly of a quantitative nature - with the exception of studies by Cotton & Devine-Wright (2010, 2011a) - have investigated perceived positive and negative local impacts of transmission power line projects, showing concerns over negative health impacts from EMF exposure, negative visual impacts, adverse effects on property values, and adverse effects on avian wildlife to associate with objection (Priestley & Evans,

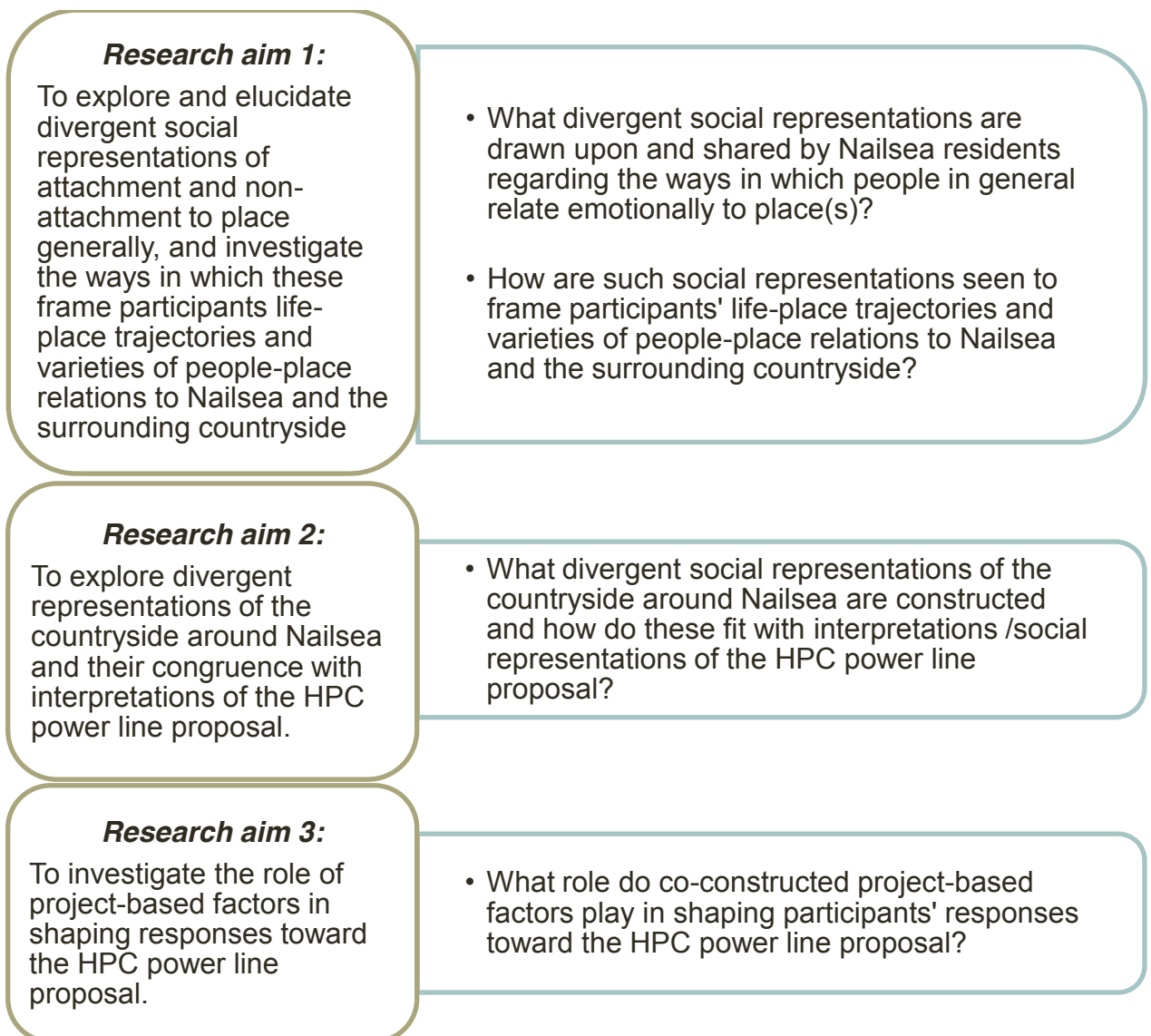
1996; Soini et al., 2011), and the importance of social trust in associating with (non)acceptance toward such projects (Pijawaka & Mushkatel, 1991; Lima & Castro, 2005; Lima, 2006; Midden & Huijts, 2009; Cotton & Devine-Wright, 2010; Devine-Wright & Howes, 2010; Devine-Wright, 2013a).

These studies have tended to adopt an individualistic socio-cognitive level approach to the study of project-related factors, employing questionnaire survey methods and attempting to establish relationships between variables or the predictive significance of particular project-based factors in explaining stance toward infrastructure projects. Whilst the above-mentioned studies are highly insightful, they have tended to overlook the co-construction of project-related factors and their role in influencing responses to a transmission power line proposal. This shift in analytic gaze has methodological implications and points to the use of a qualitative-based method (such as focus group interviews) that facilitates inter-personal communication amongst residents with regards issues relating to a power line proposal. Focus group interviews were thus employed in order to investigate Nailsea residents' co-constructions of project-based factors.

Whilst the principle focus in the preceding narrative interview study was on advancing a place-based understanding of people's responses toward the HPC power line proposal, *some participants, particularly those relating to varieties of non-attachment to the residence place, expressed opposition towards the proposal on 'project-based' grounds.* In light of the afore-mentioned lack of qualitative-based research and the indication that non-attached participants' responses to the proposed power line in study one were shaped by project-based factors, this study further seeks to investigate the role of project-related factors in shaping responses to the HPC power line proposal using a series of five focus group interviews amongst residents of Nailsea. This research aim is of added pertinence given that a recent study by Devine-Wright (2013a) showed that project-based variables explained 31% of the variance in objection toward a transmission power line proposal in the UK, compared with 4% explained by place-based variables.

3. Research aims and related questions:

With the use of focus group interviews, this study seeks to investigate social representations of the ways in which people relate to place(s) generally, and the ways in which these representations are evoked by participants' in order to situate their own life-place trajectories and varieties of people-place relations to Nailsea and the surrounding countryside. In a second instance, this study will attempt to explore further the divergent representations of the countryside around Nailsea and their congruence with interpretations of the HPC power line proposal. Finally, this study will investigate the role of project-related factors in shaping responses to the HPC power line proposal. These research aims are presented in the diagram below with accompanying research questions:



4. Methodology:

4.1 The Focus Group Interview;

The focus group interview is a relatively unstructured form of group interview that typically places emphasis on questioning around specific topics of interest to the researcher. Due to the relatively large number of participants in a focus group interview – Morgan (1998) recommends a group size of six to ten members – the interview is undertaken in a relatively unstructured manner by the interview facilitator (or researcher) so that the group members are afforded the opportunity to provide in-depth responses to questions or topics raised and bring to the fore issues deemed significant to the theme(s) being questioned upon. The focus group interview has become particularly popular for researchers who are interested in the ways in which people in groups construct particular topics and social meanings together. Thus, this method is well suited to research agendas that are interested in the ways in which people ‘collectively make sense of a phenomenon and construct meanings around it’ (Bryman, 2008:476).

Focus group interviews have been employed in studies adopting a Social Representations Theory perspective. Since social representations are seen to be constructed within and across social groups via social interaction (Moscovici, 1984; Flick, 1994; Wagner et al., 1999), focus group interviews are deemed well-suited to researching the elaboration of divergent social representations of a given topic or theme(s) of research. Wagner et al. (1999), for example, undertook a study investigating social representations about the public sphere in Brazil. Focus group interviews with everyday Brazilian citizens in the street were undertaken as a means to access group-centred elaborations of everyday representations relating to Brazilian public space.

Focus group interviews were deemed well-suited to the research aims of this study, since they allow for better emphasis to be placed upon opening up the socio-cultural context of representations within which individuals’ thoughts, feelings and ideas are situated. Focus group interviews are seen as better able (than narrative interviews) to access group-based social representations of attachment and non-attachment to place generally, representations of the nearby countryside and HPC power line proposal, and the ways in which

Nailsea residents construe particular project-based factors. As Lauri (2009:650) states: 'The focus group is the thinking society in miniature and therefore it is ideal for bringing out the social representations held by participants on complex issues...'. This method is, however, seen as less well able to investigate in such an in-depth manner individuals' personal place relations to their residence place.

4.2 *The focus group interview procedure;*

The focus group interview and data collection process comprised the following steps illustrated below (figure 5.1).

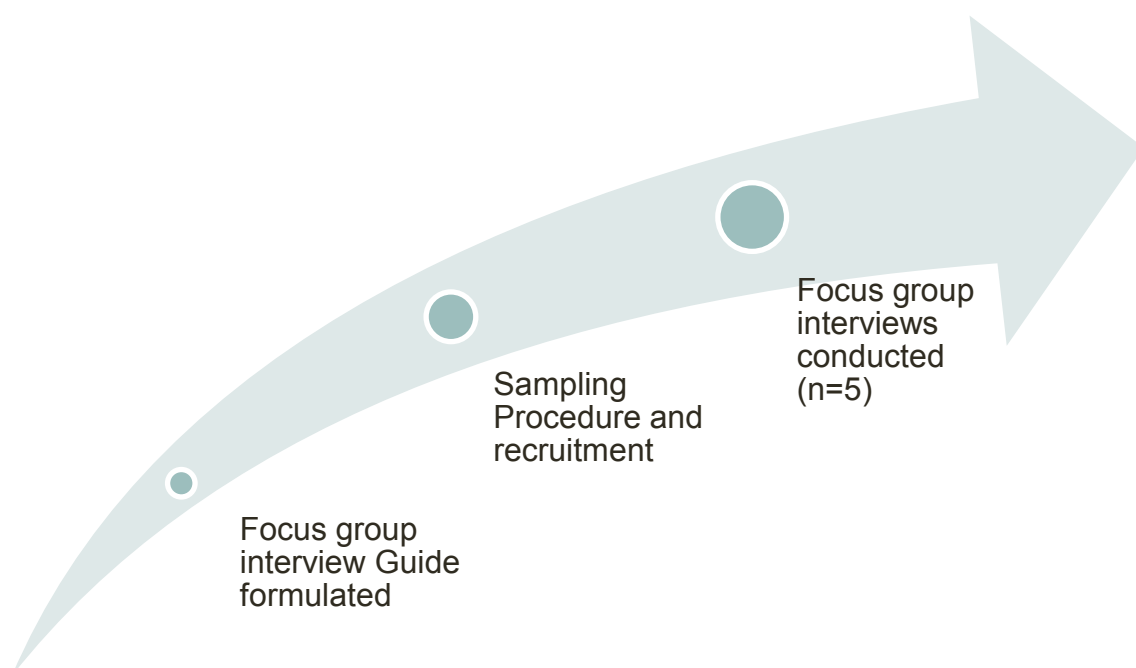


Figure 5.1: Sequential steps of the data collection process

Focus group interview guide: The interview account aimed to elicit oral accounts on four main themes: (1) social representations of the ways in which people in general relate to place(s); (2) people's personal level relationships to Nailsea and the surrounding countryside (i.e. their life-place trajectories, varieties of people-place relations and place-related symbolic meanings); (3) representations of the countryside around Nailsea and congruence with interpretations of the proposed power line; (4) project-based factors relating to the proposed power line, including perceived fairness of the planning process, perceived impacts of the proposed power line, and trust in social actors. The

focus group interview guide can be found in the appendix at the back of the PhD thesis.

Sampling procedure and recruitment: Five focus group interviews were conducted each with a representative sample of six to eight Nailsea residents (Census Data, mid-2010). Each interview comprised a near equal mix of males and females, with ages ranging from 18 to 73 years of age. Residential biographies differed greatly, with some having resided in Nailsea most if not all of their lives, others having moved to Nailsea in middle age, and others having with very short residence length in the town (in two cases for less than a year). Occupational backgrounds also varied and included retirees, those in permanent or temporary employment, self-employed, unemployed and student participants. Recruitment for the first three focus group interviews was undertaken using an external recruiting agency, with participants offered a monetary incentive to participate. Recruitment for the remaining two focus group interviews was undertaken using snowball sampling with friends and family members of narrative interview participants. The limiting of focus group interviews to five was a result both of limited resources and the application of theoretical saturation (Calder, 1977).

Focus group interviews conducted: The five focus group interviews were conducted during July 2013 in a pre-booked conference room at the Scotch Horn leisure centre situated in the centre of Nailsea. The interviews were arranged for the evening so that all participants were able to attend and were timetabled for a duration of one and a half hours. A second member of academic staff was present during these interviews to aid with time-keeping. Each interview was recorded using an audio recording device and verbal recording consent was secured prior to commencing. The interview recordings were then transcribed following a conventional format (Bryman, 2008; Gerson & Horowitz, 2002), omitting digressions and very minor parts of the interview that were irrelevant to the study's themes or aims.

4.3 *Data Analysis;*

Thematic analysis (Bryman, 2008) of focus group interview transcripts was used to elucidate themes relating to social representations of the ways in which people in general relate to place, varieties of people-place relations,

representations of the countryside around Nailsea, and interpretations of the HPC power line proposal. Whilst main themes and sub-themes were developed using a prescribed coding template (input into NVivo V.10 qualitative data analysis software), the use of open-coding was also used to arrive at novel themes relevant to the research aims (Glaser & Corbin, 1990).

There was a limitation associated with use of the focus group interview method. Due to the group dynamic involved with this method, i.e. group members talking over one another, the tendency for discussion of certain themes or issues to rapidly evolve and digress – some difficulties were experienced at times when attempting to encourage participants to clearly elaborate upon identification with varieties of people-place relations to Nailsea and the surrounding countryside. This was seen to be a more straightforward undertaking when using individual narrative interviews in study one. However, as previously stated, this limitation of the method was expected given that focus group interviews are deemed better suited to opening up the socio-cultural context or meanings within which individuals' thoughts, feelings and ideas are situated.

5. Findings and Discussion:

5.1 Divergent and generalised social representations of attachment/non-attachment to place;

This findings and discussion section attends to research aim and related question one. Following thematic analysis of the focus group interviews, two main representations of generalised forms of attachment and non-attachment to place emerged. These will now be outlined using supporting focus group interview material.

In the main, focus group interview participants voiced two distinctive and divergent social representations regarding generalised and co-constructed ways in which people relate to place(s). The first of these representations suggests that it is part of human nature for people to develop deep-seated bonds in place. The phrase '*to put down roots*' and the metaphorical allusion to place as a requisite '*anchor*' validated the view that it is a natural thing for people generally to develop a sense of place belonging. The second representation is based upon a desire to '*fly the nest*' and is characterised by preference toward

greater residential mobility and weak place bonding. This 'fly the nest' representation was viewed by some participants as a more valuable way for people to live life and relate to place generally. Subsequently, the idea of cultivating roots and residing in place for long periods of time was looked upon unfavourably.

These two divergent social representations are viewed as socially constructed meanings around attachment and non-attachment to place generally (i.e. they are not place specific) that circulate and are construed through social interaction (Flick, 1994; Wagner et al., 1999). The five focus group interviews comprised social microcosms where participants were able to draw upon and elaborate divergent socially shared representations. Extracts from two different focus group interviews will now illustrate the ways in which participants evoked these two divergent positions.

In our first focus group interview example, two participants can be seen to evoke the notion that it's '*natural*' for people to put down roots and to establish strong emotional bonds in place. Cultivating roots in place is seen construed in such a way as to be seen as an innate and fundamental feature of being human:

Interviewer: 'I was interviewing someone yesterday actually from Nailsea, and they'd lived in Nailsea all their lives and they said similar things, that they felt they wouldn't want to move elsewhere. Do you think that this way of life is still relevant for people today? Is it still common? Or are things changing?'

Tim: I think people are longing to live this way, with this stability of life that Nailsea offers.

Interviewer: They are?

Tim: Yeah.

Nigel: You put down roots don't you? That's what you do.

Steve: Yes (agreement).

Interviewer: So Nigel, you mentioned that people put down roots...

Nigel: *Yes, yes, it's natural for people to put down roots in a place, your family roots, your friends, your activities, you become a part of the community, it's what develops the whole thing ...'*

In the interview extract above, discussion between focus group participants leads to the elaboration of a generalised notion that *'it's natural for people to put down roots in a place'*. Nigel suggests that it is accepted wisdom and inevitable that people develop place bonds, and these are seen to be based upon social bonding (*'family roots, your friends'*), involvement in place-based activities and integration in a community (*'you become part of the community'*). It is suggested that attaching oneself to place is an innate, 'natural' and desired human undertaking that applies to people generally. Indeed, the idiomatic expression 'to put down roots' is often used to refer either to the development of an emotional bond to a specific location, or to refer more generally to a desire to settle down somewhere. In the above example, the interview participants are referring to the more generalised expectation that people, in general, instinctively seek to form bonds in place.

When asked whether others held this view, some focus group participants conveyed a representation that placed far greater value on residential mobility and an ability to *'fly the nest'*, than on cultivating roots and settling down in place. The following interview extract is suggestive of this divergent representation and whilst evoked principally by Tina in the example below, was a view shared by others across the focus group interviews:

Interviewer: *'Is that a view others here would share at all?'*

Tina: *I don't know, I think you'd want to do something with yourself and go somewhere else, I wouldn't be happy if my daughter just stayed here, went to school, went to college and that was it, and that's kind of what I want for her, you know, I want her to go out there and do something really special, and like me, as a young person, I think I was twenty-something when I moved here, I decided to leave London and do something completely different and so, I don't know, putting down roots, that's not what I see as important...I think some people don't necessarily want to put down roots, some people will fly the nest'.*

Gemma: *Yeah (agreement)'.*

This extract suggests that for some participants it is not necessarily normal, natural or desirable to put down roots in place ('...putting down roots, that's not what I see as important'). The view that people ought to seek new horizons and experiences is given greater social value and implies that attaching oneself to a place might only serve to hinder this way of life. Here, a divergent social representation is evoked where 'going somewhere else' – branching out to different places for novel experiences – is favoured over 'putting down roots'. Tina further comments:

'I'd hope that my daughter wouldn't just, and my son, wouldn't go 'Right, we're sticking here forever, that's the end of it, we'll just be locals'. I would want them to go off and do something new, and that's why I'd like to kind of take them around the world and for them to do something different, but that's not necessarily an opinion shared by everyone.'

In the above interview extract, Tina hopes that her own children will not tie themselves to place (their current residence place of Nailsea) and '*just be locals*'. Rather, she hopes that they will grow up to be the kinds of people that aspire to '*go off and do something new*' (global rather than local citizens) in other places and parts of the world. This representation of the way in which people ought to relate to place generally, places value on aspiring to go beyond the type of person that simply roots themselves to a place, becomes a local, and settles down somewhere.

The second focus group interview extract presents a similar distinction between the two social representations elaborated in the first example. Some participants were seen to evoke an analogous representation where it was deemed natural and part of 'human nature' for people to '*anchor*' themselves to place:

James: *'Human beings will always want somewhere to tie themselves to, to tie into and a human being won't just float off into space and will always have some ties, something to anchor into regardless of where it is, and it's usually your home town.'*

Interviewer: *So you think people are just like that then?*

James: *Yes, it's just human nature...we've got to have some anchor somewhere*'.

Here, James draws on the metaphor of place as a valued and requisite 'anchor' for people generally (*'Human beings will always want somewhere to tie themselves into'*). Like Nigel, James suggests it is part of 'human nature' to be tied and attached to a place, implying it is an innate or instinctive quality of being human. Without a place to anchor ourselves to, people would just 'float off into space' – they would be without grounding, anchor-less, perpetually lost in featureless space.

As the focus group interview progressed, some participants challenged this particular representation. The following extract supports the view from the previous example that for some people, having a place as an anchor to attach to is not seen as a relevant or pertinent way of relating to place. Rather, being 'anchorless' with regards to place(s) is considered a preferable way of proceeding through life:

Fred: *'There's nothing that particularly anchors me to Nailsea, I don't have an anchor to go back to Ireland either you know, I want a bit more excitement in my life, a bit more to do...you know, James was talking about everyone needing an anchor, but I don't think that's the case for everyone...'*

Here, Fred distinguishes himself and others from the anchored representation (*'I don't think that's the case for everyone'*), echoing the alternate view that for some it is preferable to be *anchor-less*.

These two examples suggest that divergent and opposing social representations of attachment and non-attachment to place arose from the interplay between members of two focus group interviews. Some participants drew on co-constructed social representations in the form of metaphor to suggest that people have a natural predisposition to form bonds with place(s) (i.e. 'it's natural to *put down roots*' and be '*anchored*' in place). This position was challenged by others who evoked a divergent representation founded on metaphorical non-rootedness to place and valued residential mobility (i.e. a preference and inclination to '*fly the nest*'), thus contesting the view that people are naturally predisposed to put down roots in place.

Whilst a number of empirical studies (Anderson, 2013; Devine-Wright & Howes, 2010; McLachlan, 2009), in striving to move beyond socio-cognitive approaches to the study of people-place relations, have adopted social representations theory to explore the socially constructed nature of place-related meanings, there has been a lack of empirical research that adopts such a perspective to the study of place attachment. Specifically, there has been a lack of research investigating divergent social representations of generalised forms of attachment and non-attachment to place (or ways of relating to place generally). These novel findings suggest that two divergent social representations - one relating to attachment to place, the other to non-attachment - were evoked and elaborated through the use of common everyday metaphor and idiom.

These findings support a study by Gustafson (2001) that found that interview participants tended to evoke two ways of relating to place vis-à-vis their levels of residential mobility. The 'roots' theme is characterised by a deep-seated, long-term, and irreplaceable bond to the residence place constructed around notions of cultivating roots in place and the importance of the 'home place', alluding to the view that it's natural for people to put down roots in place. The 'routes' theme, on the other hand, characterises a type of person with a high degree of residential mobility, a seeming absence of attachment to places past and present, and the belief that movement and mobility are aspects of life to be valued, thus suggestive of a wider and opposing social construct around flying the nest, of being non-rooted and anchor-less.

5.2 Divergent social representations of attachment/non-attachment to place informing personal level people-place relations to Nailsea;

This findings and discussion section attends to research aim one and related question two. Following thematic analysis of the focus group interviews, two main social representations of generalised forms of attachment and non-attachment to place emerged. These were seen to situate and frame the ways in which some focus group participants related to Nailsea and the surrounding countryside (i.e. participants' personal life-place trajectories and varieties of people-place relations). This is not to suggest causality (i.e. that these social representations of attachment/non-attachment to place lead to individuals relating to Nailsea in particular ways), but rather to propose that focus group

interviewees' personal place relations are situated and embedded within these wider social representations. The combined findings from sections 5.1 and 5.2 are in the form of a summary table at the end of this section (table 5.1).

- *Natural to put down roots theme;*

Those evoking the representation that it is natural for people to put down roots in place tended also to express attachment to Nailsea and the surrounding countryside, but amongst these participants two distinct groups emerged across the five focus group interviews (see figure 5.2). These participants differed according to their life-place trajectories, their varieties of attachment to Nailsea and the surrounding countryside, and in their social representations of place. Members of both groups tended to have medium to long-term residence length in Nailsea ranging from 15 to 45 years.

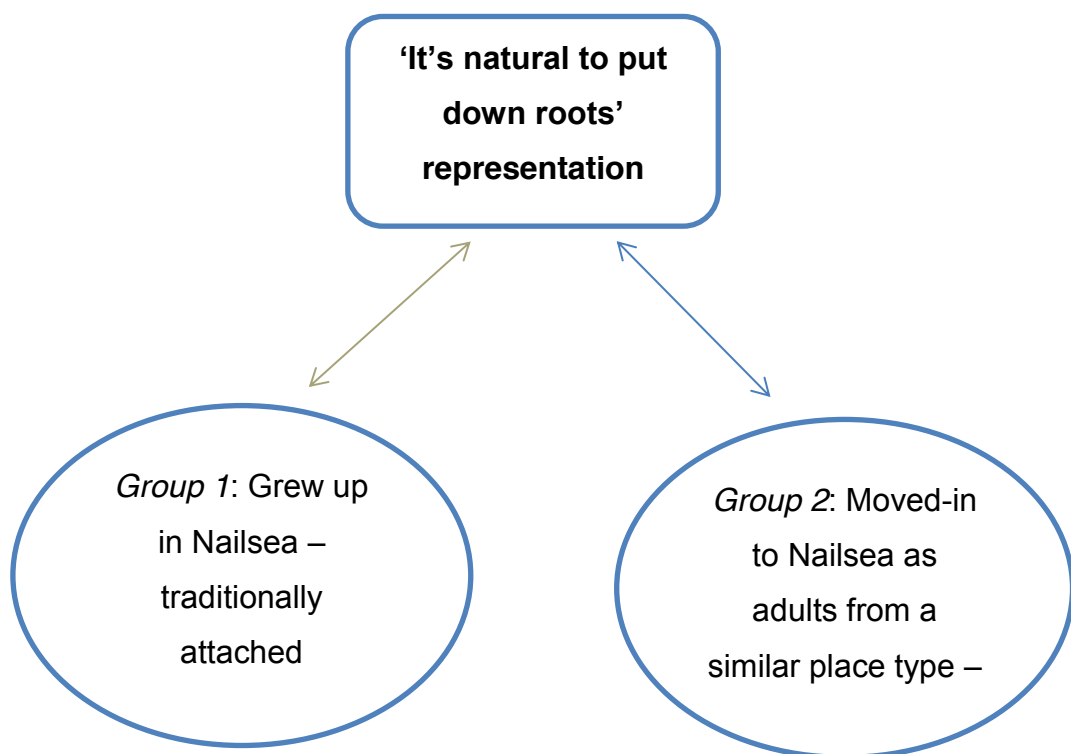


Figure 5.2: Social representation of generalised attachment to place and varieties of attachment to Nailsea

- *Group one – Traditionally attached residents;*

Some focus group participants formed a group whose life-place trajectory was strongly centred in Nailsea. These participants tended to have grown up in Nailsea as children, may have spent some years living elsewhere, but ultimately

returned to live in Nailsea citing a desire to settle down in a familiar and secure 'home' place and close proximity to a valued social base as key motivators for returning (akin to the 'Home core and traditional-active attachment' life-place trajectory elaborated in study one).

Rachel, a 28 year old Nailsea resident, followed what she described as 'a *typical life story of Nailsea*' – she grew up in the place, moved away to attend university, but quickly realised her desire to return to live and settle down there. She eventually married someone she had gone to school with in Nailsea and now lives and works there with her young family. Rachel reflected that most of her friends in Nailsea followed the same 'typical story' or life narrative that she pursued:

'I did quite a typical story of Nailsea which is, I went to school with my husband, we got married and then lived in Nailsea and then we have had kids in Nailsea and quite a lot of our friends have done exactly the same thing...it sounds really silly but in my friendship group that's just what it's like, we're just all from here and so we wouldn't need to move because everyone's here...I did go away to university and I was so excited to get out of Nailsea because I'd grown up as a teenager here and it was a bit claustrophobic, but then as soon as you are away, you think 'Oh yeah, that's where I want to end up'.

From this quote we can see that Rachel's sense of belonging to Nailsea is partly based on established social bonds with friends that have pursued a similar life-place trajectory ('*we wouldn't need to move because everyone's here*'). It is also likely that Rachel had developed a strong bond to Nailsea prior to moving away for university and that the relocation may have prompted a recognition of those bonds ('*as soon as you are away, you think 'Oh yeah, that's where I want to end up''*') and the subsequent decision to move back there to settle. This corroborates findings from a study by Chow and Healey (2008:) that showed some first year university students in England sought to affirm their intentions to retain strong emotional bonds to the home place (typically the family home) and thus the need for continuity and connection to past aspects of their lives.

Rachel's strong attachment to Nailsea is further based on ancestral family ties to the place ('*my family have always been here, and my husband's from here as*

well, so it just made sense just to live near family'), positive autobiographical childhood memories (memories of Nailsea as *'being safe'* and *'a hub of nice memories playing here, there and everywhere'*), feeling part of Nailsea's community (*'being in the community is something I find really precious and wouldn't want to change'*), and is indicated by an apparent desire to stay in the place (*'we're trying to move again but still in Nailsea, to up-size...that's what everyone else in our social circle is also doing, staying here...we wouldn't want to move elsewhere'*).

Participants within this group tended to express the traditional or traditional-active forms of place attachment, with a taken-for-granted, unreflective bond to Nailsea and a low level of involvement in communal place-based activities. When focus group participants were asked whether they could see themselves moving at some point in the future, Rachel commented: *'I don't really think about it, or about Nailsea much, I'm not kind of thinking 'Oh, you know, when the children leave home or whatever, I'd like to move away', so we'll just see what happens'*. This is indicative of an unself-conscious and unreflective bond to Nailsea.

Those who expressed traditional attachment attributed co-constructed place meanings (social representations) to both Nailsea and the surrounding countryside areas. Participants frequently spoke of Nailsea as home, representing stability, familiarity and social support. In particular, those who had grown up in the place also tended to have ancestral family links going back several generations (*'my family have always been here...my Granddad was born and lived in a cottage in Nailsea'*). This corroborates findings from Lewicka's (2011b) study which found that the place inherited variety was comprised of survey statements evoking ancestral family connections in one's residence place. Nailsea was typically valued as being both a good place to raise a family - representing a good life-stage fit - and for having a 'small town culture' (*I think you either like a small town culture or you don't, I personally really like it or I wouldn't be here'*). Whilst Rachel is the type of person who values Nailsea for its 'small town culture', 'community feel' and stability, she recognises that other more 'independent' people may not (*'if you're more independent than that then I don't think you'd be drawn to somewhere like this'*),

thus differentiating between those who value a 'small town culture' and those who do not.

The countryside areas around Nailsea tended to be represented as replete with familiar existing electricity infrastructure - '*You know, having lived here for so long, and having grown up here, the pylons were always there...we'd play under them in the fields, we'd go for family walks and pass by them, so they were always there, and you get used to them being there...*'. Alternatively, some participants represented both the countryside around Nailsea and English countryside generally as inherently industrial in nature, going beyond representations of the surrounding countryside as characterised by one particular form of infrastructure. The surrounding countryside areas were, in addition to Nailsea, a site of strong emotional attachment for this group – in fact, many of the closest areas of countryside were seen to be part of Nailsea, thus effacing boundary lines between the town and the outlying rural environment.

This supports findings from study one that showed narrative interview participants that grew up in Nailsea, moved away, and then returned (the 'Home Core Traditional-active' life-place trajectory) tended to express the traditional (and traditional-active) variety of people-place relations. These participants tended to evoke Nailsea as a secure and familiar 'home' place (Giuliani, 2003; Dovey, 1985; Tuan, 1980) toward which they were strongly bonded. Similarly, these participants tended to represent the countryside around Nailsea as replete with existing and familiar electricity infrastructure. However, some participants evoked a novel way of representing the countryside around Nailsea and the English countryside generally as inherently industrial in nature. This finding will be outlined further in section 4.3 of this findings and discussion section.

- *Group two – Actively attached participants;*

Whilst members of the sub-group outlined above had all grown up in Nailsea, other participants formed a group that had moved in to Nailsea at some point over the last 10 to 30 years, having grown up and lived in similar types of semi-rural residence places. These participants also evoked the representation that it's natural for people to put down roots in place. For some in this group, the decision to move to Nailsea and put down roots in the place stemmed from an

attempt to maintain continuity across place(s) according to a generalised settlement type. In study 1, we found that some interviewees sought continuity across semi-rural types of residence place based on positive memories, experiences and place meanings associated with this generalised settlement type growing up (Feldman, 1990). This tended to be the case amongst focus group participants who had moved to Nailsea later in life seeking continuity in a valued semi-rural type of place:

'...it is familiarity because I lived in a village growing up, it wasn't that dissimilar to Nailsea in that it had quite a nice High Street with lots of shops that you needed and you could walk and cycle out to the countryside...you know I moved to a small town which was surrounded by countryside which was similar in a lot of ways to where I came from...you do look for similar things when you do decide to uproot'.

As opposed to participants who grew up and put down roots in Nailsea, some of those who moved in from elsewhere established new roots in Nailsea, a process facilitated by moving to and seeking a place that shared 'similar' characteristics – *'a nice High Street with lots of shops that you needed'*, where *'you could walk and cycle out to the countryside'* - and was therefore 'familiar' – *'you look for things that you're familiar and comfortable with'*.

Whilst this group also expressed strong attachment to Nailsea, this place bond was seen to resemble the active variety of people-place relations, including active involvement in communal place-based activities – *'we're both very involved in the Nailsea Scouts group'* – and a distinctly comparative evaluation of Nailsea in relation to nearby settlements:

'Well when we moved here we were looking at different places, we wanted to be within reasonable commute, we looked at Yatton, we looked at Clevedon. Clevedon hadn't got a train station, Yatton had but it didn't have a lot more going for it, it didn't have a good variety of housing, whereas Nailsea had more going on and had good transport links so it just felt right'.

In addition, people in this group tended to express a more self-conscious and reflective attitude toward their residence place and were very aware of why they liked and wanted to stay living in Nailsea. This (active) variety of place

attachment, where participants' seek to foster a meaningful sense of community recalls Savage's (2010) 'elective belonging' which designates a type of relationship characterised by a conscious decision to move to a residence place and a desire to engage in community life. Caroline spoke of a time when she and her husband had travelled to Northern parts of England with a view to relocating. Upon returning to the Somerset region (the region within which Nailsea is located) Caroline was overwhelmed with feelings of attachment and appreciation for a place and region that she may have lost:

'...we went up there, really didn't like it that much, drove back over the top of the hill, down through Wraxall and you come down the hill and you're looking at the Mendips and you look at Nailsea and I burst into tears in the car and just looked at my husband and said 'I can't move', I knew then that I wanted to stay because I'd grown to value the place so much'.

This example suggests that actively attached participants tend to be more aware of the value of Nailsea and further reaching countryside areas than those in the previous group (traditionally attached) who take these places for granted.

Whilst members of this group represented Nailsea positively in similar ways to the traditionally attached - for example as a good place to raise a family and have children – these meanings were based more on valued services ('good schools') and the functional attributes of Nailsea and the surrounding countryside areas, rather than on autobiographical childhood memories and a deeper sense of Nailsea as a secure, familiar and stable 'home'. This group also held representations of the surrounding countryside areas as natural, scenic and restorative: *'There are lots of green corridors around Nailsea, lots of green spaces that seem to join up, and they're all very beautiful, very picturesque, you get wonderful views looking over the Causeway'.*

This supports findings from study one that showed narrative interview participants that moved to Nailsea from a similar type of residence place (the 'Active attachment and continuity in settlement type' life-place trajectory) tended to identify with active attachment to Nailsea and represented the surrounding countryside as scenic, restorative and natural. This was seen to result from attempts to seek continuity across a valued generalised semi-rural settlement type (Feldman, 1990; Twigger-Ross & Uzzell, 1996).

Interestingly, some members of this group, alongside some traditionally attached participants, also represented the surrounding countryside area as an inherently industrial environment which fit with representations of the power line as an industrial edifice (the degree of congruence between representations of the countryside and interpretations of the HPC power line proposal will be outlined in more detail in the next findings and discussion section).

- Fly the nest theme;

Those evoking the 'fly the nest' representation tended to express weak or absent attachment to Nailsea and the surrounding countryside. Amongst those evoking this representation, two distinct groups of participants emerged across four of the five focus group interviews (see figure 5.3). These participants differed according to their life-place trajectories, the way they expressed varieties of non-attachment to Nailsea and the surrounding countryside, and the social representations of place they evoked.

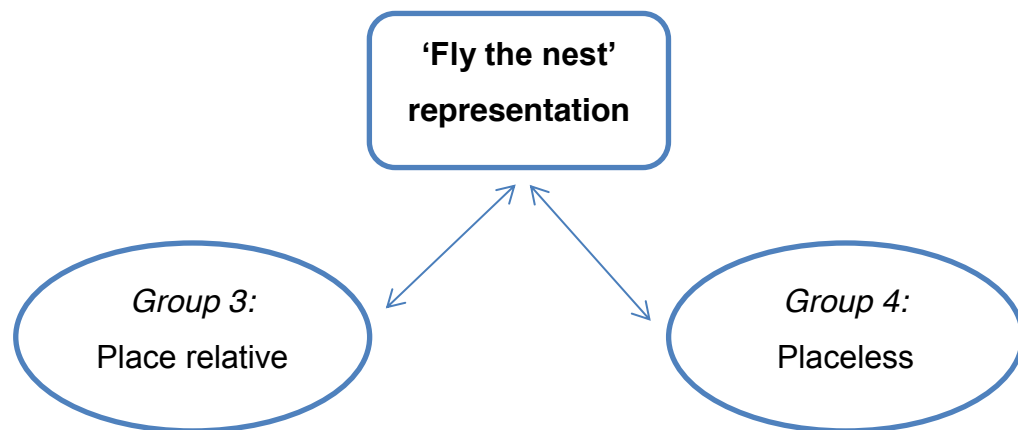


Figure 5.3: Social representation of generalised non-attachment to place and varieties of non-attachment to Nailsea

- Group three – place relative participants;

Some focus group participants expressed slightly higher levels of residential mobility than those belonging to the previous two rooted groups and were more likely to consider moving someplace else (including abroad). These participants didn't see putting down roots or feeling at home in Nailsea as particularly desirable, favouring the option of moving elsewhere and not being stuck in Nailsea for an extended period of time. The greater ease and value placed on

movement and travel seemed to have a negative effect on the development of attachment to Nailsea, as expressed by Tina who commented: *'I wouldn't say I feel at home here because I go back to London all the time'*. Estrangement from Nailsea's social milieu was also expressed as a cause of weak bonds to the place. A couple of young participants who had moved to Nailsea in recent years discussed the difficulty they faced integrating with other mothers at a nearby toddler group which led to feelings of alienation from the place:

Gemma: *'...yeah I find it quite hard to integrate, I've got a few really close friends but there's groups of people that have grown up together or that have been to school together and there is no way in, you know it's very difficult.'*

Tina: *'...yeah, and all the mum's at school kind of went to school together, to the same school and it's all kind of like that and I'm here completely different, even my accent just completely puts people off'*.

Overall, members of this group tended to describe weak bonds to Nailsea. When discussing whether participants intended to stay living in Nailsea, Tina expressed the ease at which she and her young family could move away, which suggests a lack of rootedness to the place. This is further emphasised when Tina states she would be unable to envisage a situation where her family would 'be here and die here'. Whilst Tina identified some positive aspects of living in Nailsea (the good schools and 'picturesque' quality of surrounding countryside areas) she aligned herself with the place relative variety of people-place relations – whilst conditionally accepting of life in Nailsea, she would certainly consider moving somewhere better if the opportunity arose:

'I could completely leave, sorry, but yeah we were looking, like I said, to move to New Zealand, Australia, because I've just started my own business there are a lot of places that it would probably do better in, rather than this kind of small place...I don't think we'll sort of be here and die here, I think we will go abroad eventually...'

Mixed feelings towards Nailsea and the surrounding countryside areas were also expressed by members of this group, who agreed that Nailsea was a good place to raise children, but generally held negative views of Nailsea's restrictive '*small town culture*', instead favouring independence and ambition to aspire to

be something more than a Nailsea *'local'*. When discussing her own aspirations in life, Tina spoke unfavourably of a life where her daughter would *'stay here'* and become a *'housewife'*, preferring that she develops *'the same kind of ambition to fly the nest'*. Here, Tina refers to the 'fly the nest' representation in order to frame her own variety of non-attachment to Nailsea and to some extent that of her daughter:

'I wouldn't want her to just go 'I'm going to stay here and just get a job doing this or be a housewife', I'd want her to go off, experience loads of different things and have loads of ambition and I think sometimes, when you come from a really small community, as opposed to where I came from in London, you don't always have the same kind of ambition to fly the nest and go everywhere else'.

This supports findings from study one that showed narrative interview participants that moved to Nailsea from a different type of residence place (the 'Discontinuity in settlement type and place estrangement' life-place trajectory) tended to identify with place relativity (and place alienation) to Nailsea due to experiencing discontinuity in settlement types (Feldman, 1990; Fried, 2000). It also points to the role of the 'fly the nest' representation in favouring and forwarding a particular type of relationship to place(s) characterised by movement, ambition, and aspirations to be a global citizen of sorts. In addition, these participants did not appear to evoke distinct or well-developed representations of the countryside around Nailsea.

- *Group four – placeless participants;*

Some participants evoking the 'fly the nest' representation tended to have moved to Nailsea as adults, had high levels of residential mobility, and appeared to express a placeless place orientation to Nailsea. Whilst James, in a preceding interview extract, drew upon the anchor metaphor to suggest that everyone is tied to place, Fergus spoke of being anchor-less and as having a lack of attachment to any particular place:

'...although it's a great place to bring up a family, I don't have an anchor to Nailsea, I don't have an anchor to go back to Ireland either you know, I want a bit more excitement in my life, a bit more to do....I don't have an anchor to my home town either'.

The interview extract above suggests that Fergus is indeed anchor-*less* and does not appear to need to 'have an anchor' anywhere. Those in this group tended to describe mixed representations of Nailsea, seeing it as a good place to raise a family, but alternately labelling it as a '*heartless*' and uncharismatic locale. No distinctive views concerning the countryside around Nailsea arose and this might be due to the fact, as in study one, that both Nailsea and the surrounding countryside holds little importance to placeless individuals (those characterised by a lack of attachment to place(s)).

Again, this supports findings from study one that showed narrative interview participants with particularly high levels of residential mobility (the '*High residential mobility and placelessness*' life-place trajectory) tended to express the placeless variety of non-attachment to Nailsea and did not evoke distinct representations of the countryside around Nailsea. These participants, like those in group three who also evoked the 'fly the nest' representation, are emblematic of Gustafson's (2001) 'routes' theme – they are people with a high degree of residential mobility, a seeming absence of attachment to places past and present, and the belief that movement and mobility are aspects of a life-place trajectory to be valued.

This set of findings usefully demonstrates how two divergent social representations of the ways in which people attach to place(s) generally – the first that it's natural for people generally to put down roots in place, and the second that it's favourable for people to 'fly the nest' - frame focus group interview participants' place relations (i.e. their personal life-place trajectories and varieties of people-place relations) to Nailsea and the surrounding countryside.

This suggests that wider socio-cultural meanings (or objectified social representations, in the form of metaphor and idiom) relating to attachment and non-attachment to place generally - and that are shared across groups and societies - are drawn upon by some focus group interviewees to qualify and inform their own personal socio-psychological ways of relating to Nailsea and the surrounding countryside (Batel & Devine-Wright, 2014). These novel findings aid in addressing the limitation of prior socio-cognitive approaches prevalent in the study of people-place relations in environmental and social

psychology, by demonstrating that individuals' life-place trajectories and varieties of people-place relations to a specific place are embedded and situated within wider socio-cultural level representations of generalised attachment and non-attachment to place.

The findings further corroborate findings from study one regarding narrative interview participants' elaborations of particular life-place trajectories and the ways in which these were seen to inform particular varieties of people-place relations and place-related symbolic meanings to Nailsea and the surrounding countryside. In addition, the findings support some of the existing varieties of people-place relations developed by Hummon (1992) and Lewicka (2011b), showing the elaboration of traditional and active forms of place attachment, as well as the place relative and placeless forms of place non-attachment toward Nailsea amongst focus group interview participants.

Social Representations of attachment/non-attachment to place	Life-Place Trajectories	Varieties of people-place relations to Nalisea	Social Representations of place	
			Representations of Nalisea	Representations of the countryside around Nalisea
Natural to put down roots	Home Core traditional-active attachment	- Traditional Attachment	Secure Settled Home Social support	Scenic, but replete with existing electricity infrastructure
	Active Attachment and continuity in settlement type	- Active Attachment	Semi-rural Friendship Nice neighbours Community	Natural Scenic Picturesque Recreation
Fly the nest	Discontinuity in settlement type and place estrangement	- Place relative - Place Alienated	Inadequate facilities Conservative Isolated Boring	Picturesque (Un-developed simple description)
	High residential mobility and placelessness	- Placeless	Adequate facilities Family	None

Table 5.1: Social representations of attachment/non-attachment to place and their link with personal place relations to Nalisea and the surrounding countryside

5.3 Congruence between social representations of the countryside and the HPC power line proposal;

This findings and discussion section attends to research aim and related question three. Following thematic analysis of the focus group interviews, three main representations of the countryside around Nailsea arose and were seen to 'fit' with the HPC power line proposal in divergent ways and result in different stances toward the project.

- As outlined in the previous findings and discussion section (section 5.2), participants that had grown up in and were traditionally attached to Nailsea tended to hold positive representations of the countryside around Nailsea as both a 'beautiful' and 'picturesque' locale, and as predominantly replete with existing and familiar electricity infrastructure. Associations with existing electricity infrastructure (two 132kV power lines running through the countryside to the West and North of Nailsea) as 'familiar', as 'part of the countryside', and as infrastructure that 'blends into the background', shaped participants objectified representations of the HPC power line proposal as 'familiar' and a development that was '*not going to have a huge impact on the countryside, on our enjoyment of it*'. The interview extract below conveys the minimal impact that the proposed power line is seen to have on the character of the surrounding countryside:

Gary: 'I've grown up with power stations, my father worked in a power station as well and I've seen pylons and it's just part of the countryside, I don't care...it's not something that stands out and makes me think 'Eurgh, it's disgusting and ugly', it's just something that's there, and I don't see this new power line any differently'.

Phil: Yeah, I mean the effect on Nailsea's going to be minimal because we're used to them being there already, and as Rachel said, if they were putting in a new line where there hadn't been one before then it would be very different but it's going to go vaguely in the same sort of place as it already is, so I don't think it's going to make much difference personally because we're used to them being there, they're part of our everyday'.

Rachel: 'You know, having lived here for so long, and having grown up here, the pylons were always there...we'd play under them in the fields, we'd go for family walks and pass by them, so they were always there, and you get used to them being there...so no, it's (HPC power line proposal) not going to have a huge impact on the countryside, on our enjoyment of it'.

These interview extracts suggest that the representation of the countryside around Nailsea as replete with existing and familiar electricity infrastructure was seen to be congruent with interpretations of the proposed power line as being *in place* within this locale. It is possible that those who grew up in Nailsea, especially as children who played '*here, there and everywhere*', may have become accustomed to the presence of electricity infrastructure in the countryside around Nailsea and therefore normalised such structures within this setting. This supports findings from the preceding narrative interview study that found that the HPC power line proposal was seen by some (those evoking the '*Traditional attachment and long-term residence*' and '*Home core traditional-active attachment*' life-place trajectories) as a familiar and commonplace form of infrastructure having been assimilated or objectified into existing representations of the surrounding countryside as replete with existing electricity infrastructure in the area. This finding further supports existing studies (McLachlan, 2009; Venables et al., 2012) that have found when a proposed technology is seen to fit with place-related symbolic meanings then acceptance of proposed place change is likely to ensue.

Like in the preceding narrative interview study, this finding aligns with the process of objectification inherent in social representations theory. Existing social representations of the countryside around Nailsea as replete with existing electricity infrastructure are seen to inform the objectification and subsequent representation of the proposed power line as symbolically in place and as something that is '*not going to have a huge impact on the countryside*' (Liu, 2004; Wagner, 1999).

- As outlined in the previous findings and discussion section (section 3.2), actively attached focus group interview participants tended to represent the countryside around Nailsea as natural, scenic and restorative, as illustrated in the following interview extract:

Claire: *'...part of what made me decide to stay here and bring my kids up here was the greenery surrounding Nailsea, I use it regularly all the time, in school holidays, at least four times a week, take the bikes, take the dog, take the kids, we do picnics, we do a walk through the lake, sometimes along the side of the train track, you know we use it, and then at the other end we've got the woods. We go up there regularly.'*

Matt: *'Yeah, that's the thing I do like about Nailsea is five, ten minutes you're in the middle of nowhere, no one around you, there's green in any direction pretty much, you can go out and be on your own which is one thing I've always loved about Nailsea.'*

However, these participants were far more inclined to objectify and represent the HPC power line proposal negatively as an *'industrial'* edifice that would *'spoil'* and *'ruin'* the valued *'green bands'* that run past both sides of Nailsea. The proposed power line was seen as a poor fit within a natural, green and *'picturesque'* countryside area – it was deemed as *out of place* in this locale (Cresswell, 2004):

Rachel: *'...a lot of people aesthetically just don't want them. I mean Nailsea is so small compared to the amount of greenery we've got hitting down either side of our green bands...and do we really want that kind of technology, that industry going through our green areas? I certainly don't.'*

Nick: *'I mean I think the countryside around here it's almost like a green channel all the way to the sea, all the way to Clevedon from Bristol and it's pretty much untouched, you've got a few farms and some stately homes sort of dotted through and with Nailsea in the middle, but you're completely surrounded by green hills and open fields and if you've ever seen it from the air it's really like a patchwork quilt and the towns take up a very small amount of the land, now if you put power lines going through it then obviously it'll make a mess of everything, it'll spoil everything...blight the countryside.'*

Another participant, Matt, who uses the countryside around Nailsea for restorative purposes expressed concern over potential visual disruption of the views he enjoys whilst out walking due to the larger scale of the proposed infrastructure:

Matt: *'One important issue for me, I do a lot of walking up around Cadbury Camp (an open area just North of Nailsea) and as you say if they are a lot bigger that is going to get right in the view over to the Mendips, it's going to completely ruin the view straight across because you can look right across the Mendips and it's a pretty clear fairway straight through and if they build those and they're going to be bigger I think that will totally ruin it'.*

The perceived lack of fit between representations of the countryside and the proposed power line, in addition to concerns relating to visual intrusion – *'it's going to completely ruin the view'* – prompted members of this group to hold a negative oppositional stance toward the proposal. This supports findings from the preceding narrative interview study that showed those evoking the *'Active attachment and continuity in settlement type'* life-place trajectory and identifying with active attachment to Nailsea and the surrounding countryside tended to objectify the HPC power line proposal similarly as likely to 'industrialise' a countryside area represented as natural and pristine. Similarly, the interview extracts above suggest that the power line proposal was likened metaphorically to 'technology' and 'industry' and was thus objectified in such a way as to emphasise the un-natural essence of the project and its incongruence with a 'natural' countryside locale.

This corroborates with existing research (McLachlan, 2009; Devine-Wright & Howes, 2010; Anderson, 2013) showing that a lack of congruence between representations of a place and interpretations of place change can engender opposition. This also ties into wider instances of conflict between 'rural' landscapes and 'industrial' infrastructures. Short (2002), for instance, suggests that both rural and urban dwellers in England hold and draw upon a romanticised and nostalgic discourse of a 'natural' English rural landscape, produced and maintained over time by artistic endeavours of the romantic art movement and 'chocolate-box' images of an idyllic English countryside setting, which is distinctly at odds with the increasing presence of modern industrial and technological infrastructure (i.e. wind farms, power lines, motorways) in this locale.

- Some focus group participants from both the traditional and actively attached groups represented the countryside around Nailsea and the English countryside

generally as inherently industrial in nature. This was a novel representation (new to this second study) that saw the countryside locale as an already industrialised setting, one where ‘tractors’, ‘noise’ and various forms of technology (and energy-related) infrastructure are considered acceptable and customary features of a countryside setting. This social representation of the countryside encompassed a greater array of technological and industrial features and was thus differentiated to the representation of the countryside as merely replete with existing electricity infrastructure. Interestingly, these participants tended to have grown up in areas of rural English countryside that were experienced as functional and productive farming environments. The following interview extract, where members of a focus group interview are discussing the industrial nature of countryside areas (what they see as the countryside’s ‘true’ nature), suggests that this particular representation may stem from an up-bringing based within ‘working’ functional rural settings:

Carol: ‘...my parents lived up in the sticks, they lived up in a house that was miles away from anywhere and it changed my view of the countryside a bit because actually it was really noisy, there was lots of noise from animals and tractors, they lived next door to a saw mill that had radio 1 blaring all day and that was totally alien to me, you know, I thought the sound of sky larks, or distant sheep, but it was quite a noisy environment really.’

Rebecca: ‘Yeah because you don’t think about that kind of noise when you think of the countryside, do you? You think of birds and things don’t you?’

Carol: ‘Yes, and around here I’ve noticed the other day I was taking the dog for a walk and it was dark and you could see the headlights of the tractors, they were ploughing the fields getting the harvest in because it was good weather still, and I was thinking ‘I’m going on this nice peaceful walk and it’s noisy’, you know, ‘They’re going to keep people awake!’, so you know actually it is quite an industrialised environment, if you think about industry as being in the country, you know, the head lights were really really bright and you could see them from miles away, and all the farm machinery was going up and down the road and it was like a commuter belt almost but it was dark and it was the countryside working if you know what I mean?’

This industrial representation of the countryside locale was set against a romantic view of the countryside – a natural place, untouched by industry and modern farming technology – that was deemed to be out of touch with the industrial nature of English countryside today:

Paul: 'Yeah, yeah, I mean some people have this romanticised version of the countryside which doesn't have the industry in it does it? You know, sitting outside the Blue Flame [a local pub just outside Nailsea] with the sun going down and a pint in your hand, you know, there's no tractors driving past or anything like that, but the reality is even so there's still quite a lot of industry going on because life has changed. When the pub was built they would have finished work when it got dark and gone to the pub for a couple of drinks, but now they don't because they've got the industrialisation, they've got the lights and the tractors and so they can keep working... I think people do sit outside the Blue Flame romanticising about how it used to be, pretending life is calm, when actually it's not because life has moved on, the farm machine has moved on and there's just a lot more industrialisation around Nailsea...so you know, this new power line, it's not going to change anything, it's not going to affect the outlying area because there's already industry and technology there'.

The interview extract above is indicative of the interplay between two divergent and generalised representations of the countryside. Paul is able to emphasise a contemporary vision of the English countryside as inherently industrial by comparing it to a nostalgic and romanticised version of the English countryside of yesteryear (as 'natural') and one that may inform social representations of the countryside as 'natural' amongst actively attached participants. This relates to existing literature that proposes both rural and urban dwellers in England maintain a romantic and nostalgic construct of a 'natural' pre-industrial English rural landscape, which is distinctly at odds with the modern technological energy landscapes of today (Short, 2002). Thus, for those that see the countryside around Nailsea as a modern-day techno-industrial locale, the HPC power line proposal is not objectified as out of place, but as an acceptable and congruent form of place change. Similarly to those who represented the countryside around Nailsea as replete with existing and familiar electricity infrastructure, the view of the countryside as inherently industrial in nature supports existing studies (McLachlan, 2009; Venables et al., 2012) that propose

congruence between place and technology-related meanings can result in technology acceptance.

The following diagram (figure 5.4) summarises section 5.3 of the findings and discussion and indicates three different types of fit between representations of the countryside around Nailsea (and the countryside generally) and interpretations of the power line proposal.

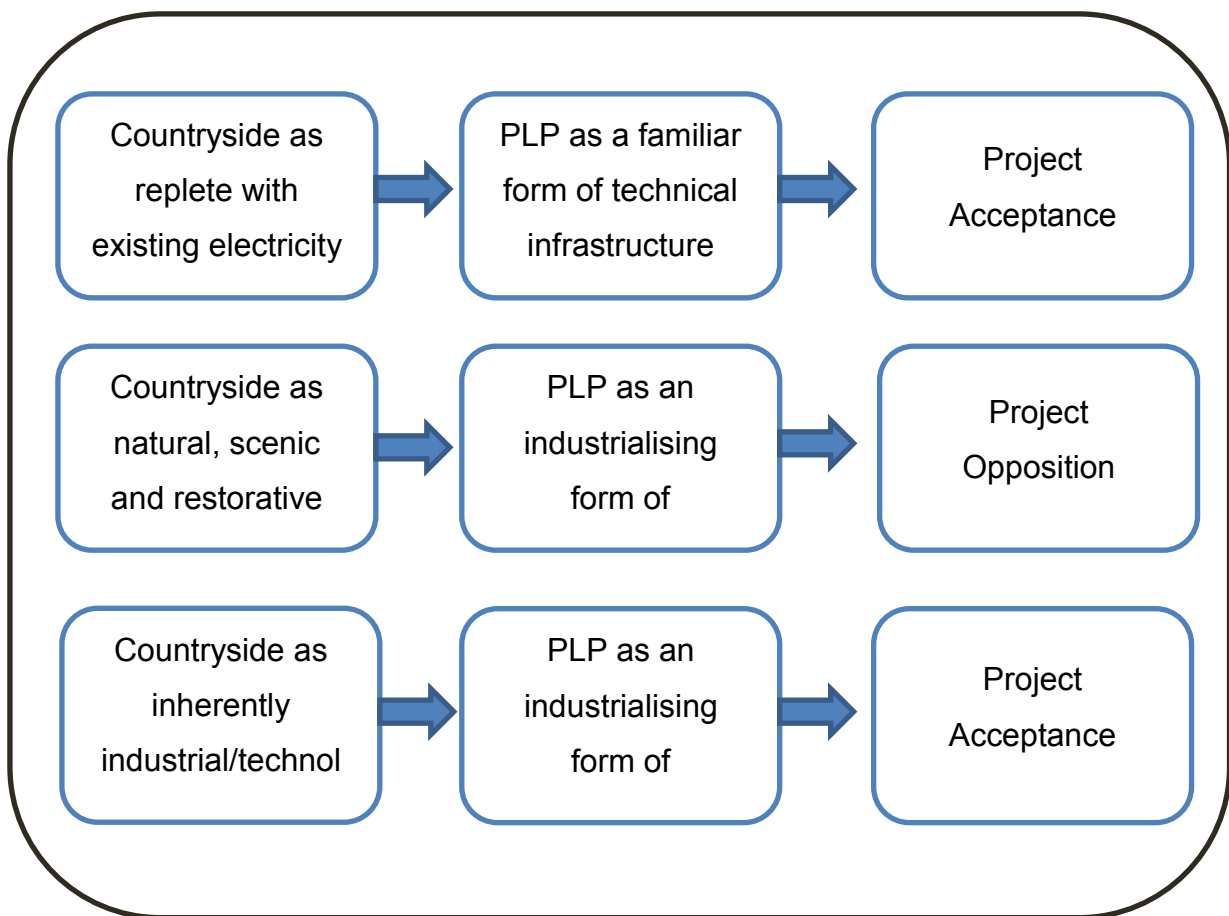


Figure 5.4: Symbolic logics of fit between social representations of the countryside (both surrounding Nailsea and generally) and objectifications of the HPC power line proposal.

The diagram above illustrates the ways in which congruence or incongruence between representations of the countryside around Nailsea (and the English countryside generally) and social representations of the power line proposal result in either acceptance or opposition toward the HPC power line proposal. Relating these findings to the processes inherent in social representations

theory, focus group interviewees existing representations of the countryside around Nailsea were seen to result in the power line proposal being objectified in divergent ways – as either a metaphorically ‘familiar’ or ‘industrial’ form of infrastructure – thus resulting in the project proposal being constructed as ‘in place’ by some, and as unfamiliar, threatening and ‘out of place’ by others (Cresswell, 2004). Findings from the preceding narrative interview study of course suggest that these symbolic logics of fit need not necessarily be seen in isolation, but as informed by and related to people’s life-place trajectories.

Ultimately, the overall findings from sections 5.1, 5.2, and 5.3 of this focus group interview study can be summarised in the table below (table 5.2), which shows how particular social representations of attachment/non-attachment to place are seen to frame interviewees’ personal life-place trajectories and varieties of people-place relations, and illustrates the ways in which social representations of the countryside around Nailsea (and English countryside generally) relate with representations of the power line proposal and ensuing stance toward the project. Similarly to findings in the preceding narrative interview study, focus group participants expressing varieties of non-attachment to place were not seen to evoke representations of the countryside around Nailsea, nor interpretations of the power line proposal, but were seen to oppose the proposal on project-based grounds (i.e. those relating, for example, to issues of procedural and distributive justice). The following findings and discussion section presents findings relating to the role of co-constructed project-based factors in shaping responses toward the power line project.

Social Representations of attachment/non-attachment to place	Life-Place Trajectories	Varieties of people-place relations to Nailsea	Social Representations of Place		Representations of the countryside around Nailsea	Representations of the power line proposal	Stance towards HPC power line proposal
			Representations of Nailsea	Representations of Place			
Natural to put down roots	Home Core traditional-active attachment	- Traditional Attachment	Secure Settled Home Social support	Scenic, but replete with existing electricity infrastructure	Familiar infrastructure	Project Acceptance	Project Acceptance
Fly the nest	Discontinuity in settlement type and place estrangement	- Place relative - Place Alienated	Inadequate facilities Conservative Isolated Boring	Natural Scenic	Industrialising impact	Project Opposition	Project Opposition
		- Placeless	Adequate facilities Family	None	None	Project Opposition (on project-based grounds)	

Table 5.2: Summary of findings and discussion sections 5.1, 5.2, and 5.3

5.4 The role of project-based factors shaping responses to the HPC power line proposal;

This findings and discussion section attends to research aim and related question four, which sought to investigate the role of project-based factors shaping responses to the HPC power line proposal. Following thematic analysis of the focus group interviews, participants' positions toward the proposed power line were seen to be shaped by a sense of procedural injustice which resulted in mistrust of National Grid's public consultation process. Furthermore, project objection tended to relate to a perceived imbalance between the likely local costs and benefits of the project.

5.4.1 Procedural justice and National Grid's public consultation practices;

Focus group interview participants held overwhelmingly negative views of National Grid's public consultation practices which related both to the 'downstream' position of public consultation and what were seen as ineffective consultation mechanisms.

A prominent concern expressed by focus group participants related to the point in time at which Nailsea residents were first consulted upon with regards siting of the proposed power line. The first phase of National Grid's public consultation took place between October 2009 and January 2010 and aimed to consult local communities on two overhead broad route corridor options (precise details of this and remaining phases of public consultation can be found in chapter three). This was seen, by some participants, as an attempt by National Grid to put forward and consult upon two predetermined overhead siting options, thus limiting the capacity for local residents to shape decision-making around (alternative) siting options for the proposed power line:

Martin: 'We were given a limited choice from the start, it's either this one or that one, you choose. They'd done all their planning and scheming behind the scenes and they came out with these two overhead options and I think people felt those options were very limited...why weren't we consulted on that? It seems to be the set formula they [National Grid] use to sort of bat away any interference but it's not satisfactory'.

John further commented:

'We were definitely told at the start of all this, it's the first thing that came through the door, was showing two routes, the consultation's going to be on two routes, A or B, so only two options were offered, and the presumption was there was no other option to overhead lines, then people started to say "Why isn't it going underground?"

These extracts suggest that National Grid's initial phase of public consultation was seen to impose *overhead* power line options and thus limit local residents' capacity to influence decision-making on alternative siting options (such as undergrounding). This sense of procedural injustice, where decision-making capacity regarding the position and siting options for the proposed power line were deemed limited and unfair, was seen to fuel discontent amongst focus group participants. This finding supports existing studies (Cotton & Devine-Wright, 2011a, 2011b; Knudsen, In Press) investigating perceived fairness of the decision-making process amongst local residents in contexts of electricity network siting proposals in the UK and Norway. These studies have shown that locally affected residents often do not feel that they have a meaningful or satisfactory level of involvement in decision-making around the siting of new power lines, resulting in project objection.

For some focus group participants, National Grid's public consultation process was seen, in its totality, as a pointless and meaningless exercise. These participants felt that any of National Grid's decisions regarding siting options to be taken forward had been predetermined and was a 'faite accomplie', with public consultation being viewed ultimately as a sham:

Rachel: Yeah but I think they probably just chose the route that they all meant to choose, because everybody, you know some people wanted one route, some people wanted the other route, so you know I think at the end of the day...they probably just chose the route that they wanted, you know, it had to be seen that they...

Alan: That they gave people the option.

Rachel: Yeah.

Claire: *Yes, it seems very much like a faite accomplie, there isn't so-called consultation, it isn't consultation, it's lip service, it's a paper exercise, the decisions have already been made and they're going to do what they're going to do.*

The dialogue above suggests that for some participants, National Grid's public consultation proffered a lack of any decision-making capacity with regards the siting of the proposed power line amongst locally affected residents. Rather, National Grid's public consultation is seen as a fog screen, designed so as to make it seem as if local communities are able to shape decision-making in this regard, but in reality playing no part in the eventual siting options taken forward by the developer. This is suggestive of real mistrust and deep-seated suspicion with regards what are seen as bogus public consultation requirements carried out by National Grid.

Some focus group participants also took issue with certain mechanisms of public consultation employed by National Grid. A prominent theme was related to the feedback mechanism which allows local residents to voice their views and opinions regarding the specific siting options at each of the three main public consultation phases. Some participants were concerned that this feedback mechanism was ineffective and that actual feedback was not taken on board or acted upon by National Grid:

Heather: *'It does seem that they ask for everybody's thoughts and opinions and then they just go ahead and do what they want to do.*

Alan: *Yeah, they just ignore it'.*

Claire: *Yeah, and I think lack of trust is massive because of that.*

This relates to the preceding view that any siting decisions taken were a 'faite accomplie' and were pushed through by National Grid regardless of feedback provided by residents of locally affected communities. Further mistrust of National Grid's public consultation process was aimed at doubts over whether local community feedback at each consultation phase was taken on board and acted upon by the developer.

A novel method utilised by National Grid to consult local residents at phase two of public consultation was the adoption of National Grid information hubs or 'drop-in shops' that were opened in a number of town centre locations. In Nailsea, National Grid opened a drop-in shop over a period of approximately four months spanning the winter season of 2012. These centres aimed to be a port-of-call for residents requiring information about the HPC power line proposal and for those desiring to provide written feedback on recent siting decisions. As a method for public consultation and information provision these drop-in shops were seen by some participants as pointless and a superficial attempt, by National Grid, to fulfil their requisite public consultation obligations:

Gary: 'I suppose what they thought is, "Well look here we're explaining to you what's going on. We've consulted because we've opened this shop and people could come in freely and discuss it with us". I don't think anybody ever went in there, I certainly didn't and I never saw anybody in there. Then they closed the shop after a few months. They probably, politically said, "We've discussed the issues with Nailsea. We've had a shop there, people could come in, we've done our bit"...it was pointless in my view'.

What these findings show is that for some focus group participants, public consultation for the HPC power line proposal (especially at phase one) was seen as unfair, proffering little decision-making capacity upon locally affected residents to influence alternative siting of the power line. At worst, public consultation was seen as largely pointless and superficial, since participants felt that the siting decisions had already been made by National Grid and that public consultation was purely for show. This view was reinforced by public consultation mechanisms, such as opportunities for feedback provision and use of 'drop-in shops' that were deemed ineffective and disingenuous in nature, fuelling negativity toward the proposal and mistrust in National Grid's public consultation process.

These findings support recent calls for moving community consultation further 'upstream' in order to endow locally-affected residents with greater decision-making capacity on (alternative) siting options, and for developers to go beyond mere information provision to engage in deliberative-type workshops when consulting local communities (Rowe & Frewer, 2005; Cotton & Devine-Wright,

2010, 2011a, 2011b, 2013). One focus group participant suggested that local residents might feel more positive toward the proposed power line if only National Grid were seen to listen to the views of local residents rather than 'imposing things on the community':

Claire: 'I think there's an issue about actually listening to what local people really think and actually showing the local community and communities that these things affect that they are prepared to listen, working with a community rather than imposing things on the community'.

It is interesting to note however that some focus group participants felt a greater sense of procedural justice regarding people's capacity to shape decision-making over the siting of the HPC power line. This was seen to follow National Grid's announcement (after phase 2 of public consultation) that the detailed siting of the power line route would involve alterations to the presumed overhead siting option. These included undergrounding part of the line through the Mendip Hills (an area of Outstanding Natural Beauty), and undergrounding part of an existing 132kV power line between Nailsea and Portishead. These siting alterations were seen by some as evidence that National Grid had acted on local residents' feedback, had introduced a number of locally desirable 'concessions' to the detailed siting of the power line, and that local residents were able to actually influence decisions made over the siting of the power line:

Rachel: 'But I do feel a bit like, what Tanya said, it's like 'What do you guys think?', and then the next publication comes and it's, 'Thank you so much for your input but we're going to do this'...and then the next time, 'What do you think about the next step?' and then again 'Thank you very much for your input but we're going to do this'.

Neville: They have been moving the goal posts a lot that's for sure.

Rachel: Yeah, you feel like you're involved, but really you're just involved on somebody else's journey possibly.

Claire: Well they must have listened to some of us somewhere along the line because they'd originally planned to put them there and now they're not, and now part of it's going underground I think too, through the Mendips.

Rachel: *Yeah that's true.*

Claire: *So some people's voices have been heard, which is progress.*

Neville: *Yes, they have made lots of amendments along the way that's for sure, I think it does show that they've listened doesn't it? That they've taken on some of the feedback'.*

The focus group interviews were undertaken during June 2013, following National Grid's second phase of public consultation on the detailed routeing and siting of the chosen route corridor (November to December 2012) and announcement of siting alterations (Stage 3 Consultation Strategy Update, National Grid, October 2012). This suggests that an improved sense of procedural justice by some focus group participants – the view that 'people's voices have been heard' - may be tied to National Grid's recent siting alterations announcement. This therefore suggests that National Grid should be especially conscious of clearly communicating that any siting alterations made have arisen from taking into account local community feedback, since this could ameliorate perceived procedural justice and subsequent acceptance of future power line proposals.

5.4.2 Distributive justice and the balance between positive and negative impacts;

Opposition toward the HPC power line proposal was seen to arise from a perceived imbalance between the local costs and benefits of the project proposal. High local costs and a lack of locally perceived benefits arising from the power line proposal was seen to drive project objection.

Local costs of the proposed power line were seen to include potential visual intrusion from larger pylons in the outlying countryside, reductions in local property prices, and negative health concerns stemming from exposure to electro-magnetic fields emanating from the new power line:

Focus group interview facilitator: *And so, to summarise a bit what you've just said, what would be the main negative impacts of this new transmission line to Nailsea and surrounding areas?*

Kim: *Well it'd be an eyesore, an impact on wildlife possibly?*

Heather: *It would have an impact on people wanting to move here as well.*

Rachel: *Yeah it will.*

Kim: *Yeah.*

Jamie: *Possible house prices, people living nearby their houses are going to drop in price.*

Group: *Yeah (agreement).*

Rachel: *Yeah, businesses could suffer so we get more charity shops.*

Group: *Yeah (agreement).*

Rachel: *Yeah, and it will be an eyesore, it is a beautiful part of the country and it will be...I mean they're just going to be so big...and they'll make a noise, you know, they're noisy, they buzz, they may or may not give kids brain tumours, like leukaemia and all that type of business. You know, the health impact, alright, you know, who knows? But Nailsea has got a little bit of a higher incidence of that than in other places.*

Elsewhere focus group interview participants expressed concern over the potential disruption (i.e. to traffics) to the locality caused by construction of the proposed power line:

John: *Obviously, as this is happening it's going to be a big, big, thing to do isn't it? It's not going to be the easiest thing to do so you're going to have a lot of disruption...a lot of it is traffic, you know, things are going to look like a building site for a while. So that's going to be...you're going to have problems all through that process.*

These perceived local costs related to the proposed power line were set against a lack of any perceived local benefits or positive impacts stemming from the project. This imbalance between local costs and benefits were seen to result in a sense of distributive injustice amongst focus group interview participants and unfavourable views toward the proposal:

Martin: *'...we've got this massive great grid line which is going to really spoil our landscape, but it's not for the benefit of this area. Apart from a few specialist*

jobs at the actual power plant [the proposed Hinckley Point C power plant], there might be construction jobs but it's going to bring nothing to the towns of Bridgewater or Nailsea once it's completed. The electricity grid in itself will take the power up into Bristol, probably over Bristol over the Bristol Channel into the Southern part of Wales, it seems to me we are getting all the disruption...

Claire: *And none of the benefit.*

Martin: *...and the blight on our way of life.*

Helen: *The ugliness.*

Martin: *If there was some sort of trade-off, some sort of trade-off to the area but at the moment we'll be getting no benefit from the presence of these things [new pylons and power lines] and in fact we'll probably be getting a negative effect, the people that do come down to this area because they want to go to the Mendips, they want to go places like Cheddar Gorge, there are people that would rather go to Clevedon with its Victorian pier than Weston with its Grand pier and all its slot machines, but you know, those sorts of people aren't going to come to this area to look at 150 foot pylons, so in fact it will have a detrimental effect on tourism which is probably one of the only strengths this area has got without providing a boost in other areas to counter balance it'.*

The interview extract above suggests that the proposed power line is seen as providing very few local benefits, with electricity produced from the eventual construction of the new Hinckley Point C nuclear power station being transported to other parts of England and Wales, and the blight of the new pylons impacting negatively on tourism in the area. Other than providing temporary construction jobs, the proposed power line is seen as likely repelling the receipt of resources to the area (for example, through reductions in tourism).

When asked whether they saw any positive impacts or benefits to the local area, participants were disparaging in their remarks, with little belief that local communities would receive any form of restitution:

Focus group interview facilitator: *And are there any positive impacts at all from the construction of this project that you can think of?*

Martin: *No, as we've already said it's just going to reduce tourism in the area...*

Helen: *Be blot on the landscape.*

Martin: *...you know the M5, the power cables, they're all just going to rush people past this area, they're not going to give anything to us.*

Helen: *And it's going to look ugly.*

Deborah: *And the bigger issue I think for us financially, are we going to get cheaper bills or anything like that later on? No.*

Group: *No.*

The interview extract above suggests that discontent relating to a lack of any perceived local benefits to the area is reinforced by doubt around the receipt of restitution to counterbalance the high local costs associated with the proposed power line.

This finding supports quantitative-oriented studies on distributive justice and responses to locally unwanted land uses that have shown a perceived imbalance between costs and benefits (higher cost than benefits) has been shown to lead to a sense of distributive injustice and opposition to infrastructure proposals (Lima, 2006; Mannarini et al., 2009) amongst local residents.

Whilst some focus group interview participants felt that the imbalance between local costs and benefits could be remedied (for example, through cheaper electricity bills or through some form of financial remuneration), and whilst there have been recent calls for power line companies like National Grid to make benefits packages available to communities bearing the costs of power line projects (Renewable Grid Initiative, 2011), there is a need for future research to investigate perceptions of various types of benefit provision (Community funds, Benefits in kind, Local ownership, Local contracting – Cass et al, 2010) in the context of high-voltage power line proposals. The issue of providing benefits packages to locally-affected communities is complicated by recent research that suggests benefit provision can be perceived as a form of bribery with the effect of lowering project acceptance to energy infrastructure proposals (Walker et al., 2010; Walker et al., 2014; Tobiasson & Jamasb, In Press).

6. Conclusion:

This study sought to build on findings from study one (the preceding narrative interview study) utilising a series of five focus group interviews that were deemed well-suited, by virtue of the inter-subjective nature of the method, to exploring the socio-cultural meanings (or social representations) of attachment and non-attachment to place within which participants' personal life-place trajectories and varieties of people-place relations were embedded and situated (Moscovici, 1984; Flick, 1994; Wagner et al., 1999). Whilst narrative interviews proved to be very useful and informative for focusing in-depth upon individuals' life-place trajectories, they appeared to be slightly less well suited to opening up the wider socio-cultural context of social representations relating to relationships to place. Whilst focus group interviews were employed by virtue of the method's capacity to better open up, through inter-subjective communication, the socio-cultural domain, the focus group method was in turn less well suited to investigating in an in-depth manner individuals' personal individual place relations to their residence place.

Research on people-place relations, particularly within the disciplines of Environmental and Social psychology, have tended to adopt a socio-cognitive stance to the study of place attachment and place identity (Proshansky et al., 1983; Breakwell, 1986; Twigger-Ross & Uzzell, 1996, Stedman, 2002). Criticisms of this individualistic focus have led to more recent moves toward a social constructivist epistemological perspective, with researchers adopting a discursive approach to the study of place attachment (Dixon & Durrheim, 2000; Di Masso et al, 2014), and others drawing on social representations theory (Devine-Wright, 2009; Devine-Wright & Howes, 2010; Anderson, 2013).

Whilst social representations theory has been usefully applied to the study of place-related symbolic meanings in contexts of proposed and actual place change (Devine-Wright & Howes, 2010; Anderson, 2013), there has been a dearth of research that adopts a social representations theory approach to the study of place attachment. Findings from the preceding empirical study indicated that narrative interview participants elaborated their life-place trajectories and varieties of people-place relations to Nailsea and the surrounding countryside utilising generalised socio-cultural metaphors or

idiomatic phrases (or representations) relating to ways of relating to place generally as well as to generalised place characteristics.

- In light of this, this study sought in a first instance to investigate social representations of generalised place relations, and the ways in which these co-constructed representations were evoked in order to situate focus group interview participants' personal place relations to Nailsea and the surrounding countryside areas (i.e. their life-place trajectories and varieties of people-place relations). Novel findings emerged suggesting that participants tended to hold two divergent social representations of generalised forms of attachment and non-attachment to place. Some participants drew upon the co-constructed social representation that it's 'natural for people to put down roots' or 'anchor' themselves in place, suggesting that people have an innate predisposition to form bonds with place(s). This position was challenged by others who evoked a divergent representation founded on non-rootedness to place and valued residential mobility, named the 'fly the nest' representation. The findings suggest that divergent and opposing socio-cultural representations of how to relate to places generally arose from the interaction between members of the focus group interviews.

These findings were seen to support research by Gustafson (2001) on place attachment and residential mobility, showing that some interview participants evoked a 'roots' theme characterised by a deep-seated long-term bond to the residence place constructed around associations with 'home', whilst others evoked a 'routes' theme based on absence of attachment to place and preference for movement and residential mobility. The findings from this study show that some people draw upon and sustain divergent social representations around attachment and non-attachment to place generally, with some evoking the view that people are naturally inclined to attach to place ('put down roots' or 'anchor' themselves to place), and others evoking a contrasting anchor/less perspective.

- This study sought, in a second instance, to explore the ways in which these social representations are evoked and drawn upon by focus group participants' to qualify their personal socio-psychological place relations to Nailsea and the surrounding countryside. Analysis of interview data suggested that those

evoking the representation that it's natural for people to put down roots in place tended either to have grown up in Nailsea (the '*Home Core Traditional-Attachment Attachment*' life-place trajectory) and express traditional attachment, or have moved to Nailsea as adults from a similar place type (the '*Active attachment and continuity in settlement type*'; life-place trajectory) and express active attachment to the place.

Conversely, those focus group participants evoking the 'fly the nest' representation tended either to have moved to Nailsea as adults from a different place type (the '*Discontinuity in settlement type and place estrangement*' life-place trajectory) and express place relativity, or have high levels of residential mobility (the '*High residential mobility and placelessness*' life-place trajectory) and evoke the placeless variety of place relations to Nailsea. Members of both groups tended not to evoke representations of the countryside around Nailsea and this is attributed to the relative lack of importance of this locale to people with weak or absent place bonds. Instead, non-attached participants across both studies one and two were seen to oppose the power line project on project, rather than place-based grounds.

Findings from studies one and two suggest that individuals' personal people-place relations – their life-place trajectories and varieties of people-place relations to Nailsea and the surrounding countryside – were seen to be embedded and situated within wider socio-cultural meanings (or social representations) of generalised place characteristics, as well as generalised forms of attachment and non-attachment to place, thus addressing the limitation inherent within much of the research on people-place relations within environmental and social psychology, of focusing solely upon the individual socio-cognitive level of analysis. Whilst study two was able to encompass both the individual, socio-cognitive (or socio-psychological) and socio-cultural levels of analysis with regards people's place relations, focus group interviews were a particularly useful method for investigating the source of and bringing to the fore wider socio-cultural representations of relationships with place(s) generally (Batel & Devine-Wright, 2014).

The findings further support novel results from study one, showing the presence and role of particular 'life-place trajectories' in informing participants' varieties of

people-place relations and place-related symbolic meanings to Nailsea and the surrounding countryside. Furthermore, the elaboration of particular varieties of people-place relations – in the case of this study, the traditional and active forms of place attachment, and the place relative and placeless forms of non-attachment to place - lends additional support to the typologies of people-place relations advanced by Hummon (1992) and Lewicka (2011b).

- Some research has investigated the degree of fit or congruence between representations of place (place-related symbolic meanings) and interpretations of proposed or actual forms of place change (McLachlan, 2009; Devine-Wright & Howes, 2010; Venables et al., 2012; Anderson, 2013). The previous narrative interview study revealed that traditional and traditional-actively attached participants tended to represent the countryside around Nailsea as replete with existing electricity infrastructure and subsequently objectified the proposed HPC power line as an acceptable and ‘familiar’ form of place change. Actively attached participants, on the other hand, tended to represent the surrounding countryside as natural, scenic and restorative, and this was seen as incongruent with constructions of the proposed power line as industrialising this locale, leading to project opposition. The study also highlighted both the novelty and the importance of particular life-place trajectories in informing representations of the countryside. Study two sought to build on these findings by exploring in more depth divergent representations of the countryside around Nailsea and their congruence with objectified representations of the HPC power line proposal.

The findings from this study corroborated results from the previous narrative interview study. Those focus group participants that had grown up in Nailsea and identified with traditional attachment tended to interpret and objectify the proposed power line as likely to blend into a surrounding countryside locale represented as replete with existing electricity infrastructure. It is possible that those who grew up in Nailsea, especially as children who played ‘*here, there and everywhere*’, may have become accustomed to the presence of electricity infrastructure in the countryside around Nailsea and therefore normalised such structures within this setting. This finding further supports existing studies (McLachlan, 2009; Venables et al., 2012) that have found when a proposed

technology is seen to fit with place-related symbolic meanings then acceptance of proposed place change is likely to ensue.

Conversely, those focus group participants that had moved to Nailsea as adults from a similar semi-rural settlement type and were actively attached tended to objectify the proposed power line as industrialising surrounding countryside represented as natural, scenic and restorative, thus leading to project opposition. This corroborates with existing research (McLachlan, 2009; Devine-Wright & Howes, 2010; Anderson, 2013) showing that a lack of congruence between representations of a place and interpretations of place change can engender opposition.

Interestingly, some focus group participants from both the traditional and actively attached groups represented the countryside around Nailsea (and English countryside generally) as inherently industrial in nature. The proposed power line was subsequently objectified as an industrial (and acceptable) form of infrastructure, and thus congruent with representations of the surrounding countryside. This was a novel representation that saw the countryside locale as an already industrialised setting, one where 'tractors', 'noise' and various forms of technology infrastructure are considered acceptable and customary features of a countryside setting. Interestingly, these participants tended to have grown up in areas of rural English countryside that were experienced as functional and productive farming environments. It is thus likely that these participants became accustomed to and normalised a particular idea or understanding of the countryside as the kind of place where industry and technology is prevalent. Similar to those who represented the countryside around Nailsea as replete with existing and familiar electricity infrastructure, the view of the countryside as inherently industrial in nature fits with existing studies (McLachlan, 2009; Venables et al., 2012) that propose congruence between place and technology-related meanings can result in technology acceptance.

Whilst this study supports the view that congruence between representations of the countryside around Nailsea and interpretations of the HPC power line proposal emerged as salient in shaping responses to the project proposal, it also shows that differences in fit between place and project meanings need to be sensitive to people's life-place trajectories. Both empirical studies one and

two have shown that people's life-place trajectories shape representations of the countryside, informing subsequent interpretations of and responses to the HPC power line proposal.

As in the preceding empirical study chapter, this study demonstrates the process of objectification inherent in social representations theory in a context of place change, showing that particular ways of objectifying and representing the power line proposal through the use of metaphorical and symbolic meanings (social representations) were seen to be socially constructed through interpersonal interaction based on existing social representations of the countryside around Nailsea and representations of countryside generally. This shows the utility of adopting a social representations theory approach for understanding the co-construction of particular representations of a proposed form of place change within the context of existing social representations of place (Liu, 2004; Batel & Castro, In Press).

- Whilst the principal focus of the preceding narrative interview study was on advancing a place-based understanding of people's responses to the HPC power line proposal, those narrative interview participants relating to varieties of non-attachment to place were seen to oppose the proposed power line based on perceived procedural and distributive injustice. This study therefore sought to investigate the co-construction and role of 'project-based' factors in shaping responses to the HPC power line proposal largely amongst non-attached participants, utilising a focus group interview methodology that was better suited to highlighting the social construction of project-related factors given the predominance of quantitative socio-cognitive oriented studies.

Analysis of focus group interviews suggested that public consultation occurring too far 'downstream' in the consultation process, doubts over National Grid's use of local community feedback, and ineffective public consultation methods were seen to fuel a sense of procedural injustice, mistrust in the developer and subsequent project opposition. This corroborates existing research (Cotton & Devine-Wright, 2011a, 2011b, Knudsen, In Press) that has shown locally affected residents often do not feel that they have a meaningful or satisfactory level of involvement in decision-making around the siting of new power lines. Such findings have led to calls for moving community consultation further

'upstream' in order to endow locally-affected residents with greater decision-making capacity on (alternative) siting options, and for developers to go beyond mere information provision to engage in deliberative-type workshops when consulting local communities (Rowe & Frewer, 2005; Cotton & Devine-Wright, 2010, 2011a, 2011b, 2013).

Interestingly, following National Grid's announcement of siting alterations following phase two of public consultation in the spring of 2013 – these alterations involved undergrounding part of the proposed power line through the Mendip Hills in North Somerset (an area of outstanding natural beauty), and undergrounding one of the existing 132kV power lines from Nailsea to Portishead – some focus group participants felt that National Grid had suitably acted upon local community feedback. The fact that local residents were seen to be better able to inform decision-making regarding the siting of the proposed power line ameliorated perceptions of procedural justice, trust in National Grid, and subsequent project acceptance. This therefore suggests that National Grid should be especially conscious of clearly communicating that any siting alterations made have arisen from taking into account local community feedback, since this could improve perceived procedural justice and acceptance of future power line proposals.

Opposition to the HPC power line proposal was also seen to arise from a perceived imbalance between the local costs - which were seen to be high - and local benefits - which were seen to be absent. Local costs of the proposed power line were seen to include potential visual intrusion by larger A-frame pylons, concerns over reductions in local house prices, negative health concerns from exposure to electro-magnetic fields, potential disruption to the locality caused by construction of the power line, and a lack of electricity supply to the locality. Comparatively, the proposal was seen to proffer very few local benefits and any likely positive impacts of the new line were attributed to generalised notions of progress and ensuring consistent electricity supply to future generations. These findings support existing quantitative-based studies that have shown a perceived imbalance between project costs and benefits has been shown to lead to a sense of distributive injustice and opposition to infrastructure proposals (Lima, 2006; Mannarini et al., 2009) amongst local respondents.

Whilst there have been recent calls for power line companies to make benefits packages available as a remedial measure to local communities bearing the costs of power line projects (Renewable Grid Initiative, 2011), there is a lack of research that investigates local-level perceptions of different types of benefit provision (Community funds, Benefits in kind, Local ownership, Local contracting) (Cass et al, 2010) in the context of high-voltage power line proposals. The provision of community benefit packages is further complicated by recent research that suggests benefit provision can be seen as a form of bribery with the effect of lowering project acceptance to energy infrastructure proposals (Walker et al., 2010; Walker et al., 2014; Tobiasson & Jamasb, In Press). In particular, an experimental questionnaire survey study by Walker et al. (2014) found that support for a hypothetical future off-shore wind farm in Exmouth (UK) diminished in a 'dual-framing' condition, where community benefits were presented as both beneficial and as a form of bribery. The study concluded that communicating that community benefits offer a good deal to communities, rather than focusing on individual benefits, may be the best avenue to increasing support for energy infrastructure developments. However, future research is needed with regards perceptions of benefit provision within the context of transmission power line proposals.

Analysis of the focus group interviews further showed that opposition and negative feelings towards the HPC power line proposal tended to be reinforced by mistrust over National Grid's public consultation process which was viewed by some as a 'faite accomplie', and the developer's use of local community feedback. Ensuring that National Grid are transparent in their use of local community feedback and clearly communicate the ways in which feedback shapes decision-making over the siting of future power line proposals may in turn ameliorate trust in National Grid.

7. Limitations of this study:

Whilst this focus group interview study saw participants' personal life-place trajectories and varieties of people-place relations to the current residence place as embedded and situated amongst wider social representations of place and ways of relating to place generally, focus group interviews appeared to be better suited (than narrative interviews) to bringing out the socio-cultural level of

social representations amongst group participants, and less well able to focus in-depth upon individuals personal life-place trajectories and varieties of people-place relations to the residence place. It was therefore difficult at times during focus group interviews to discuss individuals' personal place relations, and this subsequently made the task of investigating the ways in which individuals place relations were embedded within wider social representations of place attachment and non-attachment slightly more of a challenge.

Whilst this study found that a range of project-based factors (i.e. procedural and distributive justice) were seen to inform participants' responses towards the HPC power line proposal, the focus group interview guide was not designed in such a way as to explore participants' views on and preferences for a range of mitigation measures. In particular, with regards to the matter of benefit provision – designed to re-balance the high perceived local costs of the project – this study did not seek to explore participants' views: (1) on preferences for different types of benefit provision (i.e. Community funds, Benefits in kind, Local ownership, Local contracting); (2) on how they would interpret the notion of receiving community benefit provision (i.e. as a potentially good and fair step taken by a grid developer like National Grid, or as a form of bribery) and how these interpretations would likely shape project acceptance. Whilst this could have made a useful and informative addition to this study, future research could seek to investigate the above-mentioned points within the context of transmission power line developments, a hitherto under-researched area of study.

Chapter Six: The role of place and project-related factors in explaining stance towards the HPC power line proposal – a questionnaire survey study

1. Introduction:

Findings from studies one and two suggest that adopting a place-based approach can usefully contribute to understanding responses to the HPC power line proposal. In particular, it was shown that participants' 'life-place trajectories' were seen to inform participants' place relations to Nailsea and the surrounding countryside (varieties of people-place relations and place-related symbolic meanings), and subsequent experiences of and responses toward the project. Four key findings emerged from studies one and two in this regard:

- Those participants who had lived in Nailsea most, if not all of their lives, tended to express the traditional or traditional-active varieties of people-place relations, assuming a taken-for-granted bond to Nailsea and surrounding countryside areas. These participants also tended to represent the power line proposal as 'familiar' and blending into nearby countryside viewed as replete with existing familiar electricity infrastructure, and thus tended to accept the project on this basis.

- Participants who had moved to Nailsea as adults from similar kinds of places (semi-rural settlement types) tended to express the active form of attachment, assuming a self-conscious bond to Nailsea and the surrounding countryside, and being generally more cognisant of the recreational value offered by living in or close to this environment. Continuity in settlement type across places of residence was observed amongst these participants. These participants were much more inclined to represent the power line proposal as 'industrialising' a countryside area represented as natural, scenic and calm, and tended to oppose the project on these grounds.

- Those participants that had moved to Nailsea as adults from different types of place (usually large towns and Cities) tended to express the place relative or place alienated varieties of people-place relations. They expressed weak attachment to Nailsea and surrounding countryside areas, which largely stemmed from experiencing discontinuity of settlement type across residence

places, i.e. those that had grown up and favoured life in larger settlements tended to look unfavourably upon Nailsea as a place. Representations of the power line proposal and its perceived fit in the surrounding countryside were not commonly discussed. These participants tended to be indifferent toward the power line proposal, but some opposition was expressed on the grounds of procedural and distributive injustice (i.e. project-based factors).

- Participants who had lived in many different places across the life course (with high levels of residential mobility) tended to express the placeless variety of people-place relations, assuming an absence of attachment to places generally. Representations of the power line proposal and perceived fit with the surrounding countryside were also scarcely expressed and these participants tended to be indifferent toward the project or else object on the grounds of procedural and distributive injustice and low trust in the developer National Grid (i.e. project-based grounds).

The findings stemming from studies one and two show that place-based factors (life-place trajectories, varieties of people-place relations, and place/project representations) combined to usefully inform responses to the HPC power line proposal. In particular, whilst disruption of existing varieties of place attachment was not evidenced, the first two empirical studies suggest that perceived congruence between social representations of the countryside around Nailsea and representations of the HPC power line proposal was a salient factor in shaping responses to the project proposal.

These two studies propose that individuals' personal life-place trajectories and varieties of people-place relations to Nailsea and the surrounding countryside are embedded and situated within wider socio-cultural meanings (or representations) of place and of ways of relating to place generally. A social representations theory framework is employed which acknowledges the socio-cultural level of analysis. Study two further showed that divergent representations of the HPC power line proposal are co-constructed and objectified within the context of pre-existing shared representations of the countryside around Nailsea (and of the countryside generally) through interaction amongst individuals within a focus group interview context (Moloney & Walker, 2007).

Analysis of focus group interview data further suggested that matters of social justice (procedural and distributive) and trust in social actors were seen to play a significant role in shaping people's responses toward the project, both amongst place attached and non-attached participants. This raised an interesting question concerning the relative importance of place (varieties of people-place relations to Nailsea and representations of the surrounding countryside) and project-based factors (procedural justice, distributive justice, and trust in social actors) in explaining responses or stance toward the HPC power line proposal.

2. Critical Literature Review:

As Devine-Wright (2013:3) indicates, prior studies that investigate factors influencing responses to energy infrastructure development proposals have tended to follow one of two explanatory pathways. One strand of research has focused on the locations where energy projects are proposed, adopting a place-based approach where NIMBY responses are 'reconceived as place-protective actions that arise when the siting of large-scale energy technologies disrupt pre-existing emotional bonds and threaten place-related identities'. Studies in this regard have tended to investigate associations between intensity or varieties of place attachment and stance toward energy projects (Vorkinn & Riese, 2001; Devine-Wright, 2010, 2011a, 2013a), as well as perceived congruence between place and project-related symbolic meanings or objectified social representations (Devine-Wright, 2010, 2011a; McLachlan, 2009, Anderson, 2013; Venables et al., 2012). See the literature review chapter (section five) for a more detailed outline of these studies and emergent key findings.

A second research pathway focuses on aspects of the technology project and perceived fairness of the planning process. Studies have tended to investigate: (1) perceived local impacts of energy projects (Priestley & Evans, 1996; Soini et al., 2011; Devine-Wright & Devine-Wright, 2009, Cotton & Devine-Wright, 2011b) and the balance between costs and benefits arising from energy infrastructure projects, termed distributive justice (Lima 2006; Mannarini et al., 2009); (2) perceived fairness of the planning process and capacity to engage in decision-making around the siting of energy projects (Lima, 2006; Mannarini et al., 2009; Devine-Wright et al., 2010; Cass et al., 2010); and (3) levels of trust in

social actors involved in energy project proposals and associations with project acceptance. See the literature review chapter (section seven) for a more detailed outline of these studies and emergent key findings.

One study to date has combined these two explanatory pathways to investigate the relative importance of both place and project-based variables in explaining stance toward a high-voltage power line proposal. Devine-Wright (2013a) used hierarchical logistic regression analysis amongst a representative sample of Nailsea residents (South-West England) in order to establish the predictive significance of socio-demographic, place and project variables in explaining objections to the HPC power line proposal. The study found that project-based factors - in order of importance: procedural justice, negative impacts, positive impacts, and trust in the developer National Grid - explained most variance (31%) in the dependent variable. 4% of the variance was explained by place-based variables, with active attachment emerging as a significant predictor of project opposition. Socio-demographic factors explained another 4% of the variance with length of residence emerging as a predictor of opposition (i.e. the longer one had lived in Nailsea, the more likely they were to oppose the project). Devine-Wright points out some limitations of the study, namely that the analysis did not include varieties of non-attachment to place (place relative, place alienated and placeless) or place and project representations.

3. Research aims and related questions:

Given the findings from studies one and two, which suggest that narrative and focus group interview participants responded to the HPC power line proposal differentially based on both place and project-based factors, this study sought, in a first instance, to establish the relative importance of socio-demographic, place-based and project-based factors in explaining stance towards the HPC power line proposal. In so doing, this study offered the potential to replicate (empirically corroborate and compare) results from Devine-Wright's (2013a) study whilst using a different sample of Nailsea residents at a later stage in the life-course of the project (following National Grid's submission of a Development Consent Order to be reviewed by the Planning Inspectorate).

In addition, this study aimed to build upon Devine-Wright's (2013a) existing study by including variables for varieties of non-attachment, place-based social

representations of the countryside around Nailsea, and project-based social representations – variables that were omitted from Devine-Wright’s own study – in order to investigate the relative importance of these additional factors in predicting stance toward the HPC power line proposal. The specific research aims and related questions for this study are presented below:

Research aim 1:

To establish the relative importance of socio-demographic, place and project-related variables in explaining stance toward the HPC power line proposal.

- What is the relative importance of socio-demographic, place and project-based variables in explaining stance toward the HPC power line proposal amongst a representative sample of Nailsea residents?

Research aim 2:

To establish, in particular, the relative importance of varieties of non-attachment to Nailsea, and place and project-related meanings/representations of the surrounding countryside, in predicting stance toward the proposed power line.

- What role do varieties of non-attachment, social representations of the countryside (around Nailsea and generally) and social representations of the project play in predicting stance toward the HPC power line proposal?

4. Methodology:

A questionnaire survey method was deemed well-suited to gathering data relating to socio-demographic, place and project-based factors amongst a large-scale representative sample of Nailsea residents. Multivariate statistical analysis, in the form of hierarchical linear regression analysis, was conducted in order to establish the relative importance of socio-demographic, place and project-related variables in explaining stance towards the HPC power line proposal. A social representations theoretical lens is applied to this study by virtue of the fact that scale measures are in place at the intra-persona/socio-psychological level (e.g. residential biography; intensity of place attachment; varieties of people-place relations; stance towards the HPC power line proposal; and perceptions of project-based factors concerning procedural and

distributive justice), and at the socio-cultural level (e.g. social representations of the countryside around Nailsea and ways of relating to place generally; social representations of the fit of the power line proposal within this countryside locale).

4.1 Procedure and Sample;

The following steps were followed when conducting study three:

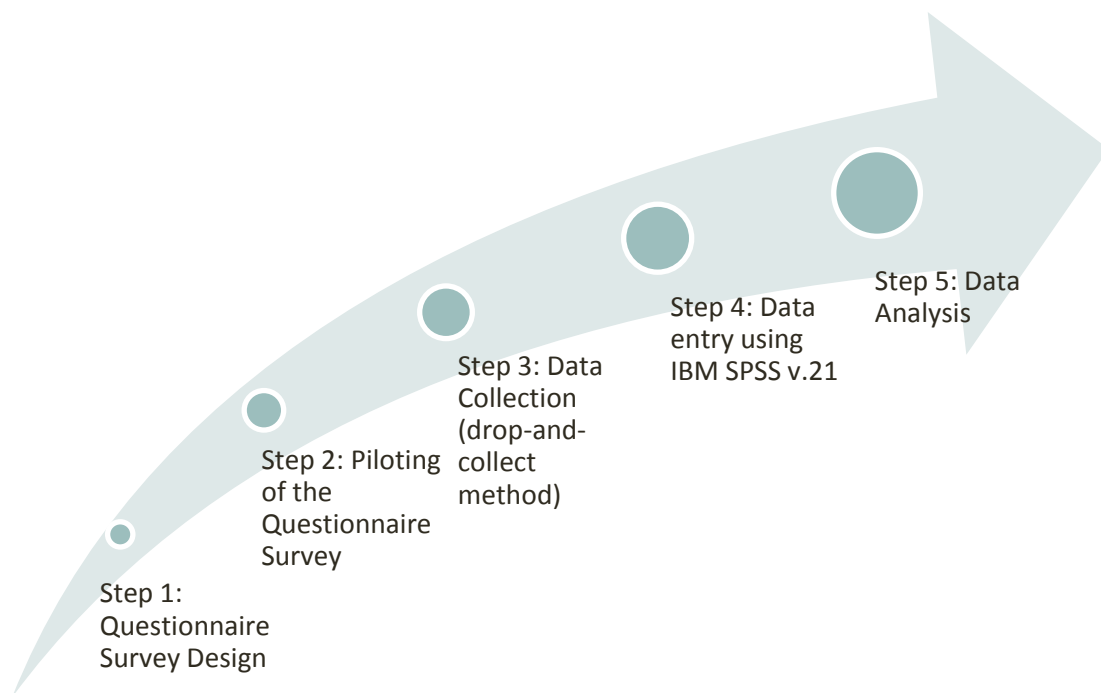


Figure 6.1: Sequential steps of the data collection process

Step 1: *Questionnaire survey design* - The questionnaire survey was designed in such a way as to maximise response rate. This was achieved in the following ways: (1) Inclusion of a gift voucher incentive communicated using bold text on the first page of the survey; (2) Use of the official University of Exeter logo; (3) Provision of a short description of the researcher and a basic outline of the PhD research project and aims of the questionnaire survey; (4) Clear instructions regarding details for collection of surveys (Fink, A. 2003; Gillham, B. 2001).

Step 2: *Piloting of the questionnaire survey* - Pilot work was undertaken with three residents of Nailsea prior to finalising the questionnaire survey design. This led to some minor adjustments being made to the wording of items in sections A (Residential Biography) and J (Stance towards the power line

proposal) in order to improve their clarity of meaning. Please refer to appendix four in order to observe the final questionnaire survey design.

Step 3: *Data collection* - A drop-and-collect method of survey distribution was adopted where questionnaire surveys were placed in transparent sandwich bags and then posted through the letterboxes of every second household. Respondents were instructed on both the first and last pages of the questionnaire survey to leave completed surveys securely in the plastic sandwich bag provided on the doorstep of the household on a specified date and time - this was, in all cases, two days after initial posting and from 10am onwards on the date of collection. A map of Nailsea with nine selected distribution zones was used in order to keep clear notes of the streets, roads and households that surveys were delivered at. These nine sub-divided survey distribution zones included areas of the North, North-East, East, South-East, South, South-West, West, North-West and the centre of Nailsea, and a mix of household types were targeted, e.g. council housing, bungalows, small and large family homes. A total of 900 questionnaire surveys were distributed in this way (one hundred in each of the nine zones) over the course of three weekends, as seen below.

Questionnaire Survey Distribution Phase	Distribution Date	Collection Date	Postal Zones in Nailsea
1	Saturday 19 th July, 2014	Monday 21 st July, 2014	N, NW, W
2	Friday 8 th August, 2014	Sunday 10 th August, 2014	SW, S, Centre
3	Saturday 16 th August, 2014	Monday 18 th August, 2014	SE, E, NE

Table 6.1: Phases of data collection

During the first phase of survey distribution, some door-to-door knocking was undertaken amongst households where surveys had not been left on doorsteps on the specified collection date (in this case, Monday 21st July, 2014). This

resulted in a social commitment by some, to leave the completed survey on their doorsteps from 10am on Wednesday 23rd July. Whilst this approach improved the response rate slightly, the increase was marginal and this approach was dropped due to the considerable increase in time and resources required. A total of 264 (n = 264) questionnaire surveys were collected, equal to a response rate of 29.3%.

A representative sample of Nailsea residents was sought based on UK Census data (mid-2010) for gender and age categories (see table 6.2 for participant details). Comparison with census data indicated that the sample is largely representative with regards gender and age categories. Males are slightly under-represented (41.3% of males in the sample, compared to 48.5% based on census data) and females are slightly over-represented (with 58.7% in the sample compared to 51.5% based on the census data). With regards age categories, the 18-24 group was slightly under-represented (3.1% compared to 7.3% in the census), and both the 65-74 and 75+ age groups were slightly over-represented in the sample (65-74: 21.1% compared to 14.5% in the census. 75+: 18.4% compared to 13% in the census).

	Modality	%
Gender	Female	41.3
	Male	58.7
Age	Mean	57.2 (min 18, max 89)
Age Categories	18-24	3.1
	25-34	10.3
	35-44	9.2
	45-54	18.0
	55-64	19.9
	65-74	21.1
	75 and over	18.4

Educational Attainment	None	7.7
	O level, GCSE, NVQ I. 1-2	23.8
	A level, AS/A2 level, NVQ I. 3-4	25.7
	Undergraduate degree, BA, BSc	20.3
	Postgraduate degree, MA, MSc,	11.5
	PhD	11.1
	Other	
Length of Residence	Less than 1 year	0.8
	1-5 years	15
	6-10 years	7.7
	More than 10 years	76.5

Table 6.2: Participant details of survey respondents

Steps four: *Data entry* - Data from collected questionnaire surveys was entered into IBM SPSS version 21.

Step five: *Data analysis* - Descriptive statistical analyses were undertaken to gauge the mean values of scale variables. Principal components analysis and Cronbach's Alpha test were conducted in order to gauge relationships between statements and to test internal reliability of prospective scale measures. Hierarchical linear regression analysis was undertaken in order to establish the relative importance of socio-demographic, place and project-related variables in explaining stance towards the HPC power line proposal.

4.2 Measures;

The survey included four sets of measures: (1) Socio-demographic variables; (2) Place-based variables; (3) Project-based variables; (4) A set of items that attempted to gauge the respondent's stance towards the HPC power line proposal.

- Socio-demographic variables consisted of respondents' age, gender, level of educational attainment, length of residence in Nailsea, the number of times respondents had moved house, and the number of different places (village, town, City) respondents had lived in.

- Place-based variables included:

Intensity of place attachment, measured using a nine-item scale developed by Lewicka (2005) and further utilised in an empirical study by Devine-Wright (2013a). The response format was a Likert-type scale with values that ranged from 1 (strongly agree) to 5 (strongly disagree).

Varieties of people-place relations were measured using a twenty-item scale with four items for each of the traditional and active varieties of attachment drawn from an empirical study by Lewicka (2011b). Devine-Wright's study (2013) used a slightly adapted version of these eight place attachment items given the different geographical context of the study. Place relativity was measured using four items, three of which were taken from Lewicka's (2011b) study. An additional item ('It wouldn't bother me to leave Nailsea and move elsewhere') was taken from narrative interview transcripts. The placeless variety was again measured using four items, three from Lewicka's (2011) study and the remaining item drawn from focus group interview data ('I don't anchor myself to places'). The place alienated variety was captured using a four-item measure derived from both narrative and focus group interview transcript data since no preceding study had elaborated statements in order to operationalise and capture this type of place orientation. The response format was a Likert-type scale with values that ranged from 1 (strongly agree) to 5 (strongly disagree).

Representations of general socio-cultural level place relations were measured using a six-item scale generated from focus group interview data. Three of the items attempted to capture degree of agreement with the belief that it is natural for people to put down roots in place(s). The remaining three items attempted to capture degree of agreement with the belief that people these days tend not to put down long-term roots in place(s). The response format was a Likert-type scale with values that ranged from 1 (strongly agree) to 5 (strongly disagree).

Representations of the countryside around Nailsea were measured using a nine-item scale developed using transcript data from both narrative and focus group interviews. Three of the items aimed to capture degree of agreement with the belief that countryside around Nailsea is a natural, scenic and quiet environment. Three items attempted to gauge degree of agreement that pylons

and electricity infrastructure is a common or familiar feature of the countryside around Nailsea. The remaining three items attempted to capture degree of agreement with the position that modern farming machinery and associated infrastructure is an intrinsic part of countryside around Nailsea (this position emerged from focus group interview data and was used by some participants to counter what was seen to be a nostalgic and unrealistic view of the surrounding countryside as pre-industrial and untouched by disruptive modern farming machinery). The response format was a Likert-type scale with values that ranged from 1 (strongly agree) to 5 (strongly disagree).

- Project-based variables included:

Symbolic fit of the PLP in surrounding CS (or social representations of the proposed power line) was measured using a six-item scale drawn from both narrative and focus group interview transcript data. Three items attempted to measure degree of agreement with the position that the power line would create an eyesore and have a negative aesthetic impact on the surrounding countryside (e.g. 'The power line proposal will industrialise the countryside around Nailsea'). The remaining three items aimed to capture degree of agreement that the power line proposal would blend into and form an unobtrusive part of the surrounding countryside (e.g. 'The proposed power line will blend into the surrounding countryside'). The response format was a Likert-type scale with values that ranged from 1 (strongly agree) to 5 (strongly disagree).

Perceived procedural Justice, measured using a five-item scale drawn from the questionnaire surveys of two studies by Devine-Wright (2009, 2013) which investigated local community responses to an off-shore wind farm proposal in North Wales and a high-voltage overhead power line proposal in South-West England. Three items were designed to capture the degree to which respondents agreed that the planning process had been fair, with the remaining two items gauging the degree to which the planning process (and involvement in this process) was perceived to be unjust. The response format was a Likert-type scale with values that ranged from 1 (strongly agree) to 5 (strongly disagree).

Perceived distributive justice, measured using a nine item scale which referred to different forms of positive and negative impacts (or cost and benefits) of the proposed power line and was drawn from an empirically validated study by Devine-Wright (2013a). Four items attempted to capture degree of agreement with a number of potential negative impacts of the proposed power line, relating to aesthetic impact, property price values, human health and construction traffic. The remaining five items captured potential positive impacts of the project, including local job creation, meeting national energy policy targets, and helping to tackle climate change. The response format was a Likert-type scale with values that ranged from 1 (strongly agree) to 5 (strongly disagree).

Level of trust in social actors, measured using a five-item scale comprising different social actors involved in the power line proposal (these included the power line developer National Grid Plc, the local action group 'Nailsea Against Pylons', Nailsea town council, the planning inspectorate, and EDF Energy, developer of the Hinckley Point C reactor). These items were drawn from a questionnaire survey study by Devine-Wright (2013a) and utilised a Likert-type response format with values that ranged from 1 (Trust Completely) to 5 (Do not trust at all), with the addition of 6 (Don't Know) for those unfamiliar with any number of the social actors listed.

Stance towards the HPC power line proposal was measured using an initial five-item scale adapted from a study investigating responses to mining in Australia (specific source needed). The scale attempted to capture a range of possible responses including support, acceptance, indifference, opposition and full rejection toward the power line proposal. Recent literature (Batel, et al., 2013) has shown both an empirical difference between 'acceptance' and 'support' and highlighted the limitations of utilising simple uni-dimensional measures of 'acceptance', when in fact a range of varied responses toward energy infrastructure developments can exist. This scale attempts to respond to this critique by attempting to capture degree of agreement across the aforementioned five response types. Two further items were included ('I think the power line proposal is a bad idea' and 'Overall, how positive or negative do you feel about the proposed power line?') to gauge respondents' stance toward the proposal using empirically validated measures drawn from a study by Devine-Wright (2009). The response format was a Likert-type scale with values

ranging from 1 (strongly agree) to 5 (Strongly Disagree), with the exception of item seven that used values ranging from 1 (Strongly Positive) to 5 (Strongly Negative). A score of 3 (Undecided) was also used for all Likert-type response formats.

4.3 Scale Creation;

To fit with questionnaire survey response format convention, all survey items were recoded so that in all cases a low score related to disagreement, lack of trust, negativity and a high score related to agreement, trust and positivity. Exploratory factor analysis (Principal Components Analysis), with varimax rotation, was conducted on all statements comprising sections B, C, D, E, (place-based constructs), F, G, H, I (project-based constructs), and J (stance towards the power line proposal). Subsequently, a Cronbach's Alpha test was conducted for each factor in order to measure the internal reliability of the scale. Pallant (2011) and DeVellis (2012) recommend that the Cronbach alpha coefficient of a scale should be at or above .7, thus indicating good internal reliability of the scale. In cases where the Cronbach alpha coefficient is below .7 and closer to a value of .5, then it is more appropriate to report the mean inter-item correlation for the items. According to Briggs and Cheek (1986), the optimal range for an inter-item correlation is between .2 and .4. This would equally be indicative of good internal reliability of a scale.

For *intensity of place attachment* (see table 6.3), a one-factor solution emerged (eigenvalue = 4.29) accounting for 47.6% of the variance. Two negatively worded items were recoded (pre-reversed items were used) so that a high score indicated stronger attachment to Nailsea and a low score related to weaker attachment. A subsequent Cronbach's Alpha test revealed an internally reliable score of .860.

Rotated Component Matrix	
	Component
	1
I am rooted here	.819
Nailsea is a part of me	.794

I am proud of Nailsea	.764
I would like to move out of Nailsea	-.749
I miss Nailsea when I am not here	.734
I would like my family and friends to live here in the future	.692
I feel foreign here	-.601
I want to be engaged in its affairs	.571
I feel safe here	.367
Cronbach's Alpha	.860

Table 6.3: Principal Components Analysis of Place Attachment Intensity

For *varieties of people-place relations* (see table 6.4) a principal components analysis was conducted, including the four traditional and four actively attached items, along with twelve items relating to place relative, place alienated and placeless varieties. Running PCA with varimax rotation on all twenty items, a four-factor solution emerged. All four place alienated items loaded onto factor 1 (eigenvalue = 6.84) explaining 34.2% of the variance with a Cronbach's Alpha value of .864. Four traditional attachment items combined with three place relative items loading onto factor 2 (eigenvalue = 1.96) explaining 9.8% of the variance with a Cronbach's Alpha value of .832. The four placeless items combined with the one remaining place relative item to load onto factor 3 (eigenvalue = 1.69) explaining 8.46% of the variance and a Cronbach's Alpha value of .771. Finally, the four active attachment items loaded onto factor 4 (eigenvalue = 1.47) explaining 7.34% of the variance with a Cronbach's Alpha value of .682. All four factor loadings showed good internal reliability. Positively phrased items were used for the Cronbach's Alpha tests, except for the three place relative items loading on factor 2, where negatively phrased (pre-reversed) items were used.

Whilst factors one and four show clear-cut loadings based on the four items for place alienated and active attachment, loadings for factors two and three are less straightforward. The loading of the four placeless items with one place relative item onto factor three is perhaps not unusual, since the wording of this particular place relative item ('I could equally well live here as in any other place') could be interpreted by respondents as having a similar meaning to

placeless items in the questionnaire survey. The item loading for factor two is a little more unexpected, since one would not necessarily expect items for the traditional variety of people-place relations to combine with those of the place relative variety. Generally, they are considered as two distinct varieties in the literature (Hummon, 1992; Lewicka, 2011b), with traditional attachment associated with strong place attachment, and place relative with weak attachment to place.

Whilst the place relative items on this factor loading were negatively valenced and traditional attachment items positively valenced, suggesting that unconditional acceptance of a place is negatively correlated with conditional acceptance, the items for each variety did not load onto separate factors. This would imply that rather than being viewed as opposite to one another, the items for each variety should still be interpreted as loading onto one factor solution and combining to form a composite variety. Further statistical analyses were undertaken in order to verify whether the co-loading of place relative and traditional attachment items onto one factor solution was indeed accurate. This involved the following steps: (1) Running a Cronbach's alpha test on the four traditional attachment (TA) items and the three place relative (PRel) items separately. Test results showed good internal reliability for the TA items (.693) and PRel items (.765); (2) Creating scale measures for both sets of items; (3) Running a bivariate correlation of the subsequent TA and PRel scale variables. This indicated a strong positive association between the two variables (.700 – statistically significant at the .001 level), suggesting that both varieties can be interpreted as closely associated and as loading together as a composite factor solution, as per the original factor output.

Whilst one would not expect these two varieties to load together given the conceptual distinction between the two place orientations, upon closer observation of the item wording, it may be that respondents may have read and interpreted the TA and PRel items in question as sharing similar wording and overall meaning. For example, both TA and PRel items use the phrases 'move out of Nailsea', 'move out', 'move elsewhere', and 'living somewhere else', and it may be that these items, when not read in detail, were seen to share a similar meaning. Similarly, both TA and PRel items used the phrases 'leave Nailsea' and 'imagine leaving Nailsea', which could again have been interpreted as

denoting a similar meaning. This could thus explain the strong association and co-loading of these two varieties onto one factor solution.

Whilst the combination of two varieties was seen to arise following narrative thematic analyses of narrative interviews in study one, where a composite traditional and active attachment variety of people-place relations was seen to arise, it is suggested that in the case of the co-loading of TA and PRel items in this study, it is similarity in the wording of these items that may have led to a perceived shared meaning across the items and the subsequent emergence of a TA-PRel factor solution.

It is also worthy to note that the principal components analysis did not reveal a factor comprising combined loadings of traditional and active attachment items. One might have expected this factor to emerge given the finding of a composite 'Traditional-Active Attachment' variety in study one. It may be that the particular sample garnered for this study did not reveal this particular factor loading. It would be interesting to utilise the questionnaire survey construct for varieties of people-place relations amongst a larger representative sample of residents to see whether the 'Traditional-Active Attachment' variety, along with the potential for additional composite factor loadings, arose.

For social *representations of general socio-cultural level place relations* (see table 6.5), a two-factor solution emerged, with four items loading onto factor 1 (EV = 2.50) accounting for 41.7% of variance, and two items loading onto factor 2 (EV = 1.10) explaining 20.3% of variance. Factor one included three items expressing the belief that it is natural for people to put down roots in place(s) and a fourth item ('People don't really need to anchor themselves to places'). Whilst this fourth item would seem incongruent with the other three item factor loadings, it could be that use of the term 'anchor' in two of the statements may have been misconstrued as holding a similar meaning and may thus have been scored similarly on the Likert-type scale by respondents. Factor two loadings included two items expressing the belief that people these days tend not to put down long-term roots in place(s). Following reversal of negatively phrased items (use of three original pre-reversed items) so that a high score indicated agreement with the position that it's natural to put down roots in place(s), Cronbach's Alpha tests showed good internal reliability for factor one (.743), but

a weak score for factor 2 (.385). However, using the mean inter-item correlation value for factor two of .239 (with scores falling between 0.2 and 0.4 attributing an internally reliable score), the two items loading onto factor two were further deemed to hold internal reliability (Pallant, J. 2013)

Rotated Component Matrix				
	Component			
	1: Place Alienated	2: Traditional and Place Relative	3: Placeless	4 : Active Attachment
I feel alienated living here (Pal)	.828			
I feel estranged living in Nailsea (Pal)	.804			
Nailsea really isn't the right place for me (Pal)	.763			
I dislike living in Nailsea (Pal)	.739			
I cannot imagine leaving Nailsea for good (TA)		-.755		
Even if there are better places to live, I am not going to move out of Nailsea (TA)		-.744		
I have never considered if living somewhere else would be better (TA)		-.674		
Nailsea has many advantages but if I find a better place, I will move out (Prel)		.644		
It wouldn't bother me to leave Nailsea and move elsewhere (Prel)		.592		
There are many places in the UK and in the world where I could live (Prel)		.530		
I have strong family connections in Nailsea (TA)		-.449		
I don't get attached to any particular places (Pless)			.751	
How I live is more important to me than where I live (Pless)			.732	
I don't anchor myself to places (Pless)			.679	
I don't care about where I live (Pless)			.657	
I could equally well live here as in any other place (Prel)			.586	
I like to wander around Nailsea and discover new places (AA)				.783
From time to time, I discover Nailsea anew (AA)				.782
I often take photographs of various places in Nailsea (AA)				.645
I like to keep up with changes in Nailsea (AA)				.562
Cronbach's Alpha	.864	.832	.771	.682

Table 6.4: Principal Components Analysis of Varieties of People-Place Relations

Note: Pal = Place Alienated/ TA = Traditional Attachment/ Prel = Place Relative/
Pless = Placeless/ AA = Active Attachment

Rotated Component Matrix		
	Component	
	1	2
Everyone needs a place to anchor themselves to	.837	
People will always want somewhere to tie themselves to	.762	
People don't really need to anchor themselves to places	-.695	.224
It's natural to put down roots in a place	.657	-.185
In general, people these days tend to fly the nest		.884
Putting down roots in a place isn't important for people today	-.375	.628
Cronbach's Alpha	.743	.385 Mean inter-item correlation: .239

Table 6.5: Principal Components Analysis of Representations of general socio-cultural level place relations

For *social representations of the countryside around Nailsea* (see table 6.6), a three-factor solution emerged. Factor one (named 'Countryside replete with familiar electricity infrastructure') included three items expressing the belief that existing electricity pylons form a familiar part of the countryside around Nailsea (EV = 2.55) and they accounted for 28.28% of the variance and a Cronbach's Alpha value of .879. A further three items loaded onto factor two, named 'Modern farming machinery part of countryside' (EV = 2.32, % variance = 25.75) and reflected the view that modern farming machinery and associated infrastructure is an intrinsic, but disruptive, part of the countryside around Nailsea. A Cronbach's Alpha test run with all three items produced a value of .717. Factor three, named 'Countryside as natural' included the remaining three items (EV = 1.38) reflecting the belief that the countryside around Nailsea is a

natural, scenic and calm environment, explaining 15.35% of the variance. Due to a low factor loading value for one of the items, only the two with the strongest factor loadings were included in a Cronbach's Alpha test (CA = .790).

Rotated Component Matrix			
	Component		
	1	2	3
I'm quite used to seeing pylons going through the countryside around Nailsea	.929		
Pylons are a familiar part of the countryside around Nailsea	.907		
Electricity pylons are a normal part of the countryside around Nailsea	.856		
Modern farming machinery disrupts the peaceful nature of nearby countryside		.873	
Modern farming machinery has made nearby countryside less tranquil		.863	
Modern farming machinery has industrialised the countryside around Nailsea		.643	
The surrounding countryside is a quiet and calm environment			.844
The countryside around Nailsea is natural			.807
The surrounding countryside is like an old Cathedral that needs preserving			.584
Cronbach's Alpha	.879	.717	.790

Table 6.6: Principal Components Analysis of Representations of the countryside around Nailsea

For *Symbolic fit of the Power Line Proposal in surrounding CS* (or social representations of the power line proposal) (see table 6.7) a one-factor solution emerged (EV = 3.97) and accounted for 66.11% of the variance. Three negatively worded items were re-coded (original pre-reversed items were used) so that a high score indicated low negative aesthetic impact of the proposed

power line on the surrounding countryside and a low score indicated an industrialising effect on the surrounding countryside (Cronbach's Alpha = .894).

Rotated Component Matrix	
	Component
	1
The power line will create an eyesore	-.902
The power line won't have a huge impact on the countryside around Nailsea	.860
Pylons are part of the countryside, I don't see the power line proposal any differently	.848
The power line proposal will industrialise the countryside around Nailsea	-.790
The proposed power line will blend into the surrounding countryside	.766
The power line will be incredibly ugly and out of proportion	-.697
Cronbach's Alpha	.894

Table 6.7: Principal Components Analysis of Symbolic fit of the power line proposal in surrounding countryside

For *Trust in social actors* (see table 6.8), a two-factor solution emerged, with three social actors (National Grid Plc, Planning Inspectorate, and EDF Energy – Trust Group 1) loading onto factor one (eigenvalue = 2.59) explaining 51.8% variance, and two social actors (Nailsea Against Pylons and Nailsea Town Council – Trust Group 2) loading onto factor two (eigenvalue = 1.42) accounting for 28.4% of variance. Subsequent Cronbach's Alpha test produced a value of .856 for factor one, and .583 for factor two, showing a good degree of internal reliability for factor one. Using the mean inter-item correlation value for factor two of .369 (with scores falling between 0.2 and 0.4 indicating an internally reliable score), the two items loading onto factor two were further deemed to hold internal reliability (Pallant, J. 2013).

Rotated Component Matrix		
	Component	
	1	2
National Grid Plc (UK electricity transmission grid operator)	.899	
The Planning Inspectorate	.858	
EDF Energy (developer of the Hinckley Point C reactor)	.845	
Nailsea Against Pylons	.314	.884
Nailsea Town Council	-.475	.789
Cronbach's Alpha	.856	.583 Mean Inter-Item Correlation: .369

Table 6.8: Principal Components Analysis of Trust in social actors

For *perceived procedural justice* (see table 6.9), all five items loaded onto a one-factor solution (EV = 3.03) explaining 60.51% of the variance. Three negatively worded items were re-coded (original pre-reversed items were used) so that a high score indicated perceived procedural fairness and a low score perceived procedural injustice and a subsequent Cronbach's Alpha test revealed an internally reliable score of .830.

Rotated Component Matrix	
	Component
	1
I think the planning process for the power line proposal has been fair	.885
I believe local people have had a say in the planning process for the power line proposal	.827
The planning process for the power line proposal has been secretive	-.786
I feel local people have had enough time to respond to the proposal	.730
I feel I have not been able to influence the planning or siting of the power line proposal	-.639
Cronbach's Alpha	.830

Table 6.9: Principal Components Analysis of Perceived Procedural Justice

For *Positive and Negative Impacts* (see table 6.10) a two-factor solution emerged, with five items loading onto factor one (negative impacts: EV = 4.5, variance explained = 50%) and four items loading onto factor two (positive impacts: EV = 1.42, variance explained = 15.77). Five negatively phrased statements were reversed (original pre-reversed items used) so that a high score indicates agreement with positive impacts and a low score relates to agreement with negative impacts. Subsequent Cronbach's Alpha tests produced a value of .912 for the five items loading onto factor one, and a value of .715 for the four items loading onto factor two.

Rotated Component Matrix		
	Component	
	1	2
Scar Nailsea with pylons	.872	
Create an eyesore in the local countryside	.855	
Damage local people's health by producing electro-magnetic fields	.827	
Reduce local property values	.821	
Bring too much construction traffic to the local area	.796	
Help keep the country's lights on		.758
Help meet national energy policy targets		.735
Provide jobs for local people		.713
Help tackle climate change		.647
Cronbach's Alpha	.912	.715

Table 6.10: Principal Components Analysis of positive and negative impacts

For *stance towards the HPC power line proposal* (see table 6.11), a one-factor solution emerged (EV = 4.14) explaining 69.03% of the variance. Three negatively worded items were reversed (original pre-reversed items used) so that a higher score indicates acceptance/support and a lower score indicates opposition/rejection. A subsequent Cronbach's Alpha test revealed internal reliability of .922.

Rotated Component Matrix	
	Component
	1
I fully reject the power line proposal	-.881
I oppose the power line proposal	-.916
I am indifferent towards the power line proposal	.467
I accept the power line proposal	.891
I support the power line proposal	.859
I think the power line proposal is a bad idea	-.855
Overall, how positive or negative do you feel about the proposed power line?	.872
Cronbach's Alpha	.922

Table 6.11: Principle Components Analysis of stance towards the power line proposal

Following Cronbach's Alpha tests on all item factor loadings, statements were aggregated to form composite scale measures.

The use of a questionnaire survey (commonly aligned with a positivist approach) is not seen as incompatible with the social constructionism inherent in Social Representations Theory (Fraser, 1994), and has been used in studies exploring representations of rurality (Anderson, 2013; Halfacree, 1995; Selby et al., 2007; Van Dam et al., 2002) and representations of place in the context of energy infrastructure proposals (Devine-Wright & Howes, 2010; Devine-Wright, 2011a). Whilst questionnaire surveys are limited in their capacity to capture the full complexity of lay discourses (sets of social representations), the design of this questionnaire survey was informed by interview data stemming from qualitative studies one and two. The questionnaire survey is thus better suited to establishing the distribution of social representations of place (seen to include both varieties of people-place relations as the affective dimension of a social representation and place-based meanings of the countryside around Nailsea)

and the power line project amongst a larger representative sample of Nailsea residents.

4.4 Hierarchical linear regression analysis (HLRA) procedure:

Hierarchical linear regression analysis was conducted to investigate the role of personal (gender, age, educational attainment), place (varieties of people-place relations and three countryside representations), and project (representations of the HPC power line proposal, positive impacts and procedural justice) variables on stance towards the HPC power line proposal. The analyses were conducted in three steps;

Socio-demographic predictor variables were entered into the first block of the hierarchical regression analysis (gender, age, and educational attainment).

In the second step, scale measures for varieties of people-place relations (Traditional Attachment and Place Relative, Active Attachment, Place Alienated, and Placeless) and representations of the countryside around Nailsea were entered. Williams (2014) suggests that people's place relations, or sense of place, are comprised of both place attachment ('Place as a Locus of Attachment) and place meanings ('Place as Centre of Meaning'). It was thus seen as appropriate to group varieties of people-place relations and social representations of the countryside into the same block for the regression analysis.

The third step involved entering socio-demographic, place-based and then project-based variables as a third block, with 'perceived procedural justice' entered first, then 'positive impacts', then 'trust group 2', and then representations of the power line proposal (or 'symbolic fit of the PLP in surrounding CS'). Procedural justice was entered first as it was shown to have the highest standardised Beta value (.92) as a statistically significant variable in Devine-Wright's (2013a) hierarchical logistic regression analysis. Due to the omission of negative impacts in this study, positive impacts followed procedural justice in Devine-Wright's study with a standardised Beta value of (.77). 'Trust in group 2' then ensued, followed by 'symbolic fit of the PLP in surrounding CS' (which did not appear in the study by Devine-Wright, 2013a). Fields (2009)

recommends inserting predictor variables into the regression model based on their empirical importance in previous studies. This justifies the order in which project-based variables were placed into the regression model as outlined above. Project-based variables as a whole were entered into the final step of the model based on the rationale that respondents are likely to look through a personal and place-oriented 'lens' prior to exposure and awareness of the HPC power line proposal. This ordering also replicated the process followed by Devine-Wright (2013a) in his own hierarchical logistic regression analysis.

4.5 Checking assumptions of hierarchical linear regression analysis:

- Multicollinearity: Preliminary bivariate correlation analysis indicated that three predictor variables (Place Attachment Intensity, Negative Impacts, and Trust Group 1) had levels of association close to or above a correlation coefficient of .7. Pallant (2013) suggests that predictor variables with correlation coefficients above .7 should be removed from an eventual hierarchical regression analysis so as not to violate the assumption of multicollinearity. Subsequently, 'place attachment intensity', 'negative impacts', and 'trust group 1' were removed from the eventual hierarchical linear regression analysis:

1) 'Place attachment intensity' associated highly with the 'place alienated' variety (-.705) and relatively highly with the 'placeless' variety (-.569). Since neither the place alienated nor placeless varieties correlated highly with any other independent variable, it was decided that the place attachment intensity variable would be omitted from the forthcoming regression analysis. Since both the place alienated and placeless varieties of people-place relations assume, respectively, very weak or absent levels of place attachment, one would expect strong negative associations between place attachment intensity and these two varieties of non-attachment to place.

2) 'Negative impacts' correlated very strongly and negatively with the independent variable 'Symbolic fit of the power line proposal in surrounding countryside' (-.847) and both strongly and negatively with 'Perceived Procedural Justice' (-.610). Since neither 'Symbolic fit of the power line proposal in surrounding countryside' nor 'Perceived Procedural Justice' had particularly high correlations with any of the remaining independent variables - except between 'Perceived Procedural Justice' and 'Trust Group 1' (.646), where trust

group 1 was, in any case, omitted – it was decided that negative impacts would be removed from the forthcoming regression analysis. The strong negative association between negative impacts and symbolic fit of the power line proposal in surrounding countryside suggests that the belief that the power line proposal will industrialise the countryside around Nailsea is concomitant with negative perceived impacts of the project (e.g. negative impact items such as: ‘Scar Nailsea with pylons’, ‘Create an eyesore in the local countryside’, and ‘Damage local people’s health by producing electro-magnetic fields’). The relatively strong negative association with ‘Perceived Procedural Justice’ suggests, similarly, that a low level of perceived procedural justice is aligned with negative perceived impacts of the project.

3) ‘Trust Group 1’ correlated relatively strongly with ‘Perceived procedural justice’ (.646), with ‘Positive Impacts’ (.576), ‘Negative Impacts’ (-.564), and with ‘Symbolic fit of the power line proposal in surrounding countryside’ (.561). Although all of these values fall below the .7 benchmark figure for omitting independent variables on the basis of multicollinearity (Pallant, 2011), the high frequency of these relatively large correlations led to the decision to omit ‘Trust Group 1’ from the eventual regression analysis. The relatively strong positive associations between trust group 1 and ‘Perceived procedural justice’, ‘Positive impacts’ and ‘Symbolic fit of the power line proposal in surrounding countryside’ suggest that when respondents feel greater trust in National Grid Plc and the Planning Inspectorate, they may be more likely: (1) to view the planning process as fair; (2) to agree more with the likely positive impacts of the power line project; (3) and not to think that the power line proposal will visually impair the countryside around Nailsea.

Tolerance values for each of the predictor variables fell above .2 and VIF values all fell below 10 with an average VIF value close to 1 (Average VIF = 1.47). This indicates that levels of association between the predictor variables did not violate the assumption of multicollinearity (Fields, 2009). Correlation analysis of the remaining predictor variables (see table 6.12) showed that there were no variables with drastically high levels of association (above .7 – Pallant, 2013). Whilst four correlation coefficients were seen to be higher than others – (1) ‘Symbolic fit of the PLP in surrounding CS’ and ‘Perceived Procedural Justice’ (.596); (2) ‘Symbolic fit of the PLP in surrounding CS’ and ‘Countryside

replete with familiar electricity infrastructure' (.522); (3) 'Perceived Procedural Justice' and 'Positive Impacts' (.563); and (4) 'Years lived in Nailsea' and 'Age' (.522) - levels of association still fell below the acceptable .7 benchmark. See table 6.12.2 for a correlation matrix of all the survey variables.

The first of these stronger bivariate correlations is perhaps not necessarily expected. The greater the perceived fairness of the planning process, the more respondents see the proposed power line as blending into surrounding countryside areas. It may be that greater perceptions of fairness in decision-making regarding the siting of the proposed power line, the less it will be seen to create a blot on the landscape. People who feel that they have had a greater capacity to shape the siting of the power line, the less likely they may feel that the proposed power line is being sited in an unwanted, unwarranted and obtrusive location in countryside around Nailsea.

The second of these bivariate correlations suggests that the greater agreement there is that the countryside around Nailsea is replete with existing familiar electricity infrastructure, the more respondents feel that the proposed power line will blend into this countryside setting. This association might be expected, since the way in which people represent the countryside around Nailsea is, at least in this case, potentially instructive of how the proposed power line is seen to fit within this countryside setting.

The third of these associations suggests that the greater perceived fairness in the planning process, the more respondents are likely to see the proposed power line as providing positive impacts, such as local job creation and achieving UK climate change policy goals. Whilst one might not see an immediate link between these two positions, it is possible that respondents subsumed greater fairness in the planning process with positive impacts arising from the power line proposal.

The fourth of these associations suggests that as age increases, length of residence also increases. It stands to reason that the older respondents are, the more likely they may be to have lived longer in Nailsea.

- Sample size: Tabachnick and Fidell (2007) propose the following equation for calculating the appropriate number of cases per predictor variable: $N > 50 + 8m$

(where m = number of predictor variables). With a total of 15 predictor variables, an appropriate sample size would equal 170. With a sample size of 264, there were an appropriate number of cases per predictor value for running hierarchical linear regression analysis.

- Outliers: Tabachnick and Fidell (2007) define outlier cases as those with standardised residual values above 3.3 (or below -3.3). To verify the presence of outliers, the 'Scatterplot' (Standardised residuals and Standardised predicted value) created in SPSS when running a hierarchical linear regression analysis was inspected and indicated no observed outliers.

- Normality: In order to verify normality, Pallant (2013) suggests inspecting the 'Normal Probability Plot' generated as an SPSS output when conducting a hierarchical linear regression analysis. This indicated no major deviations from normality.

- Homoscedasticity: In order to verify that the residuals at each level of the predictors have the same variance, Fields (2009) recommends inspecting the scatterplot of standardised and predicted residual values. Each case (represented as a dot) should be randomly and evenly dispersed, forming a rectangular type shape around the 0 point. This was found to be the case, indicating that the assumptions of homoscedasticity had been met.

	Stance towards PLP	Gender	Age	Educational Level	Years lived in Nailsa	TA + PRel	Active Attachment	Place Alienated	Placeless	CS replete with existing EI	MFM part of CS	Country-side as natural	PPJ	Positive Impacts	Trust Group 2	Symbolic fit of the PLP in surrounding CS
Stance towards PLP	1.000	.100	-.087	.030	-.007	-.006	-.103*	.053	.061	.380***	-.009	-.269***	.638***	.599***	-.304***	.776***
Gender		1.000	.237***	.049	.225***	.087	-.089	-.087	.149**	.146**	.010	-.092	.076	.033	-.111	.200**
Age			1.000	-.145*	.522***	.136*	.008	-.131*	.151**	-.025	-.075	.002	-.024	-.040	.142*	.005
Educational Level				1.000	-.149**	-.090	-.047	.018	-.005	.050	-.047	-.132*	-.015	-.006	-.115*	.050
Years lived in Nailsa					1.000	.265***	-.008	-.253***	-.119*	.061	-.107*	.097	-.010	.041	.061	.076
TA + PRel						1.000	.010	.006	.147**	-.013	.013	-.004	-.045	.031	.043	.043
Active Attachment							1.000	-.282***	-.293***	-.041	.054	.296***	.006	.023	.200**	-.136*
Place Alienated								1.000	.396***	.047	.215***	-.258***	.043	.004	-.159*	-.011
Placeless									1.000	-.004	.079	-.270***	.046	.033	-.143*	.071
CS replete with familiar EI										1.000	.025	-.087	.415***	.357***	-.093	.522***
MFM part of CS											1.000	-.242***	-.019	-.015	.025	-.078
Country-side as natural												1.000	-.171**	-.072	.270***	-.252***
PPJ													1.000	.563***	-.085	.596***
Positive Impacts														1.000	-.219**	.494***
Trust Group 2															1.000	-.299***
Symbolic fit of the PLP in surrounding CS																1.000

Table 6.12: Correlation matrix of independent and dependent variables * = $P < .05/$ ** = $P < .01/$ *** = $P < .001$

Note: TA = Traditional Attachment/ PRel = Place Relative/ PLP = Power Line Proposal/ CS = Countryside/ EI = Electricity Infrastructure/ MFM = Modern Farming Machinery

	Gender	Age	Educational Level	Residential Biography	Years lived in Nalisa	Times moved house	Different places lived in	Natural to put down roots	Fly the Nest	Place attachment intensity	CS replete with EI	MFM part of CS	Countryside as natural	TA + Prael	Active Attach	Place Alienated	Placeless	SYM fit of P.P in CS	P.P	Pos Impact	Neg Impacts	Trust 1	Trust 2	Sence towards P.P
Gender	1	.237***	.049	-.073	.225***	-.123*	-.033	-.095	-.054	.004	.146**	.010	-.092	.087	-.089	-.087	.149**	.200**	.076	.033	-.261**	.060	-.111	.100
Age		1	-.145*	.256**	.522***	-.059	.116	-.016	-.268**	.078	-.025	.002	.136*	.008	-.131*	.151*	.005	-.024	-.040	.080	-.067	.142*	-.087	-.087
Educational Level			1	.066	-.149*	.123*	.136*	.023	.034	-.055	.050	-.047	-.132*	-.090	-.047	.018	-.005	.050	-.015	-.006	-.078	-.073	-.115*	.030
Residential Biography				1	-.306*	.133*	.280**	.003	-.032	-.150*	-.012	-.041	-.305**	.025	.105	.105	.053	-.081	-.036	-.120	.069	-.106	-.015	-.065
Years lived in Nalisa					1	-.272**	-.219**	.095	-.147*	.295**	.061	.097	.265***	-.008	-.253***	-.119*	.076	-.010	.041	-.011	-.027	.027	.061	-.007
Times moved house						1	.697**	-.109	.000	-.213**	-.087	-.155*	-.031	.005	.236**	.137*	-.039	.026	-.077	-.001	-.033	.036	.004	.004
Different places lived in							1	-.109	-.051	-.211**	-.089	-.122*	-.017	.059	.216**	.215**	.019	.052	-.003	-.044	-.044	.033	.053	.040
Natural to put down roots								1	.293**	.401**	.001	.207**	.072	.237**	-.219**	-.424**	-.087	-.072	-.024	.132*	-.108	.058	-.079	-.079
Fly the Nest									1	.087	.141*	.026	-.056	.098	-.072	-.205*	-.020*	.021	.025	-.074	.015	.015	-.098	.040
Place attachment intensity										1	.029	-.037	.300**	.167**	.404**	-.569**	-.023	-.047	.021	.072	.029	.224**	-.060	-.060
CS replete with EI											1	.025	-.087	-.041	.047	-.004	-.004	.522**	.415***	.357***	-.492**	.370**	-.093	.380**
MFM part of CS												1	-.242***	.013	.054	.079	-.078	-.019	-.015	.088	-.049	.025	-.009	-.009
Countryside as natural													1	-.004	.296***	-.258**	-.270**	-.252**	-.171**	-.072	.275**	-.129	.270**	-.269**
TA + Prael														1	.010	.006	.147**	.043	-.045	.031	-.018	-.078	.043	-.006
Active Attachment															1	-.282***	-.293***	-.136*	.006	.023	.112	.024	.200**	-.103
Place Alienated																1	.396**	-.011	.043	.004	-.052	.020	-.159*	.053
Placeless																	1	.071	.046	.033	-.018	-.014	-.143*	.061
Symbolic fit of P.P in CS																		1	.596**	.494**	-.847**	.561**	-.299*	.776**
P.P																			1	.563***	-.610**	.646**	-.085	.638**
Positive Impacts																				1	-.466**	.576**	-.219*	.599**
Negative Impacts																					1	-.564**	.338**	-.789**
Trust Group 1																						1	.080	.621**
Trust Group 2																							1	-.304**
Sence towards P.P																								1

Table 6.12.2 : Correlation matrix of all independent and dependent variables * = P < .05/ ** = P < .01/ *** = P < .001

5. Results:

5.1 Descriptive Data;

Descriptive data indicated a mean value of 26.27 years lived in Nailsea (SD = 16.70), a mean score for 'Times moved house' of 6.11 (SD = 4.30), and a mean score of 4.14 for 'Different places lived' (SD = 2.59). Data indicated moderately high place attachment intensity (M = 3.60, SD = 0.65). Mean values for the traditional-place relative variety (M = 3.02, SD = 0.86) and active attachment (M = 3.17, SD = 0.67) fell just a little over the mid-point, with a low score for place alienated (M = 1.62, SD = 0.68) and a moderately low score for the placeless variety (M = 2.47, SD = 0.68). With regards representations of the countryside around Nailsea, data indicated moderate to high levels of agreement with both the 'Countryside replete with familiar electricity infrastructure' (M = 3.43, SD = 0.91) and 'Countryside as natural' (M = 4.04, SD = 0.55) scale measures, and a moderately low score for the 'Modern farming machinery part of countryside' measure (M = 2.37, SD = 0.58). Descriptive data further indicated moderate levels of procedural justice (M = 3.15, SD = 0.72), perceived positive (M = 3.05, SD = 0.67) and negative impacts (M = 3.37, SD = 0.92), and trust in group 2, the local action group and Nailsea town council (M = 3.16, SD = 0.80). There were lower levels of trust in group 1 (M = 2.36, SD = 0.93) and 'Symbolic fit of the power line proposal in surrounding countryside'/Social representations of the proposed power line (M = 2.64, SD = 0.91). For stance towards the power line proposal, the mean score (M = 2.80, SD = 0.85) fell just below the mid-point ("Undecided"), with 10.6% of respondents undecided (the mid-point score), 45.8% of respondents objecting to the proposal (falling below the mid-point), and 43.2% accepting the proposal (above the mid-point).

5.2 Data for the Hierarchical Linear Regression Analysis;

Table 6.13 shows the results of the hierarchical linear regression analysis.

- The results for step 1 indicated that socio-demographic variables explained 2.4% of the variance in the dependent variable. No significant effects were found for gender, age, or educational attainment.
- The results for step 2 showed that entering place-based predictor variables explained an additional 19.6% of variance in the dependent variable. After

controlling for socio-demographic variables, two countryside representations emerged as significant predictors of stance toward the HPC power line proposal: (1) 'Countryside replete with familiar electricity infrastructure (Standardised Beta = .351, $p = .000$) – higher agreement with this position associated with acceptance of the power line proposal; and (2) Countryside as natural (Standardised Beta = -.262, $p = .000$) – higher agreement with this position associated with opposition toward the proposal. Interestingly, none of the varieties of people-place relations emerged as significant predictors of power line stance, a finding that persisted in step three of the regression analysis.

Independent Variable	Step 1			Step 2			Step 3		
	Beta	S.E.	Exp B	Beta	S.E.	Exp B	Beta	S.E.	Exp B
Gender	.123	.873	1.487	.043	.821	.522	-.015	.517	-.184
Age	-.134	.029	-.047	-.125	.028	-.044	-.060	.017	-.021
Education	.010	.292	.042	-.041	.270	-.170	-.014	.169	-.056
Years lived in Nailsea	.037	.029	.013	.036	.029	.013	.000	.018	.000
TA + PRel				-.005	.153	-.011	-.018	.096	-.041
AA				-.003	.158	-.006	-.008	.099	-.017
PAlien				-.026	.163	-.058	.021	.103	.047
PLess				.025	.133	.043	-.020	.083	-.034
CS replete with pylons				.351***	.141	.768	-.089	.104	-.195
MFM part of CS				-.085	.232	-.294	.024	.146	.082
CS natural				-.262***	.257	-.955	-.065	.168	-.236
Procedural Justice							.190**	.090	.311
Positive Impacts							.223***	.111	.495
Trust Group 2							-.050	.166	-.185
PLP Reps							.575***	.064	.628
R Square	.024			.220			.704		

Table 6.13: Hierarchical linear regression analysis of factors influencing stance towards HPC power line - Note: PAlien=Place Alienated, PLess=Placeless.

* = $P < .05$ / ** = $P < .01$ / *** = $P < .001$

- Results for step 3 showed that entering project-based predictor variables explained a further 48.4% of the variance in the dependent variable. After controlling for personal and place-based variables, the following project-based variables emerged as significant predictors of stance towards the HPC power line proposal:

(1) Symbolic fit of the Power line proposal in surrounding countryside/social representations of the power line proposal (SB = .575, $p = .000$) – *agreement that the power line proposal would be seen to blend into countryside around Nailsea associated with support toward the project.*

(2) Positive impacts (SB = .223, $p = .000$) – *agreement with the positive impacts of the project associated with acceptance toward the proposal.*

(3) Perceived procedural justice (SB = .190, $p = .001$) – *higher perceived procedural justice associated with acceptance toward the proposed power line.*

In this step however, representations of the countryside around Nailsea as both replete with existing electricity infrastructure and as natural were not significant, suggesting that project-related variables may have mediated their relationship with stance toward the power line proposal.

In order to assess the potential effect of project-based variables upon the relationships between these two countryside representations and stance toward the power line, a second hierarchical linear regression analysis was conducted with 'Symbolic fit of the PLP in surrounding CS' as the dependent variable. This was undertaken in two steps, using the same socio-demographic variables inserted in step one and the same place-based variables inserted into step 2 of the analysis. 'Symbolic fit of the PLP in surrounding CS' was chosen to act as the dependent variable because it was hypothesised that it was this variable - due to a high correlation coefficient with the 'Countryside replete with familiar electricity infrastructure' independent variable (.522) - that was responsible for this potential mediating effect. Findings showed that place-based variables

explained 31.4% of the variance (compared with 4.3% explained by socio-demographic variables), and that two representations of the countryside around Nailsea – 1) ‘Countryside replete with familiar electricity infrastructure’ (SB = .493, $p = .000$), and 2) ‘Countryside as natural’ (SB = -.237, $p = .000$) - emerged as significant predictors of representations of the power line proposal (symbolic fit). The loss of significance of these two predictor variables following step three of the primary regression analysis might suggest that they were seen to share similar meanings with the ‘Symbolic fit of the PLP in surrounding CS’ variable and items (i.e. that the power line proposal was seen as either blending into or industrialising the countryside around Nailsea, which was itself represented either as replete with existing electricity infrastructure or as natural) thus negating their predictive effect during step three of the regression analysis.

Trust in the local opposition group (trust group two) did not emerge as a significant predictor of stance towards the power line. Whilst trust in the developer (National Grid) was found to be a significant predictor of power line objections in Devine-Wright’s (2013a) study, no direct comparison can be made since the trust group 1 variable (National Grid, the Planning Inspectorate, and EDF Energy) was omitted due to relatively high correlation coefficients with negative and positive impacts.

6. Discussion:

6.1 Role of socio-demographic variables;

No effects of gender, age or educational attainment were found to shape stance towards the HPC power line proposal. This finding contrasts with studies where socio-demographic factors were found to be significant predictors of stance towards energy infrastructure developments. This was the case in a study by Devine-Wright (2013a), where length of residence was shown to play a significant role in influencing objections to a proposed high-voltage power line in South-West England. A study by Vorkinn and Riese (2001) also indicated that most socio-demographic variables (gender, age, education, occupation, household size, income, birth place and length of residence) were significantly related to attitudes towards a hydro-power plant proposal in Norway.

This result does however corroborate findings in a study by Devine-Wright (2011a), where socio-demographic variables (gender, age, education) were not found to be significant predictors of acceptance toward an installed tidal energy convertor in Northern Ireland. This finding could suggest that factors influencing technology acceptance may become more or less salient over the life course of a proposed project. When compared to findings by Devine-Wright (2013a) – where length of residence emerged as a significant predictor of objection toward the HPC power line proposal – this study suggests that socio-demographic variables may have become less salient in explaining stance towards the HPC power line proposal, as the project has progressed.

6.2 Role of place-based variables;

- Varieties of people-place relations;

Varieties of people-place relations were not seen to significantly predict stance towards the power line proposal. This finding contrasts with studies where place attachment intensity and varieties of attachment to place were seen to predict stance towards energy infrastructure projects. This was the case in a study by Vorkinn and Riese (2001), where attachment to areas most likely to be affected by a proposed hydro-power plant served as the strongest predictor of attitudes toward the project. Devine-Wright's (2011a) study revealed that greater place attachment intensity emerged as a significant unique predictor of project acceptance toward an existing tidal energy convertor in two case study locations. Furthermore, this study showed that the 'place discovered' variety of people-place relations (or active attachment) emerged as a significant predictor of stance towards the HPC power line proposal (those with higher levels of the place discovered variety were more likely to oppose the proposal). Both the 'place inherited' variety (traditional attachment) and place attachment intensity however were not found to predict power line objection.

Due to high correlation coefficients between the place attachment intensity scale measure and some varieties of people-place relations, it was decided to remove the attachment intensity variable from the final regression analysis in order to avoid violating the assumption of multicollinearity. For this reason, no comparison in this regard can be made with aforementioned studies.

It is curious that none of the varieties of people-place varieties emerged as significant predictors of stance toward the power line proposal. One might have expected the active form of attachment to emerge as significant in explaining objection toward the power line proposal, as in Devine-Wright's (2013a) study. Devine-Wright proposed that actively attached individuals may be oriented towards local discovery and thus be more vigilant and more quickly aware of changes to the place. This may lead them to have greater exposure to proposed place change and thus greater potential to object on well-informed grounds. Lewicka's (2011b) study, in addition, suggests that actively attached people are more likely than other varieties to engage in protest activities.

Studies one and two of this thesis, along with studies by Hummon (1992) and Lewicka (2011b), suggest that active attachment is characterised by a self-conscious and reflective bond to the residence place, where residents are aware of what they value about a place. It might therefore be expected that actively attached residents would be more sensitive to a form of place change that encompasses potential negative impacts upon both the character of the countryside around Nailsea (a valued site of attachment characterised as 'natural') and upon emotional ties to the town. Despite these expectations, active attachment – and the remaining varieties - did not emerge as a significant predictor of stance toward the power line proposal in this study.

In addition, the 'traditional attachment – place relative variety' also did not significantly predict stance towards the power line proposal. Traditional attachment is typically characterised by a passive unself-conscious emotional bond to where one lives. Drawing on conclusions from studies one and two of this thesis, it was suggested that people who are traditionally attached to Nailsea may not view the proposed power line as a source of disruption to their emotional bond to the town due to the non-reflective nature of that bond. The studies further suggested that those identifying with traditional attachment tended to view the proposed power line as blending into a countryside area seen as replete with existing and familiar electricity infrastructure, thus suggesting congruence between place and project-based meanings. Both of these points would suggest that traditionally attached Nailsea residents are less likely to view the proposed power line as a source of disruption or threat to place bonds and representations of the nearby countryside. This finding

corroborates the lack of predictive significance found in Devine-Wright's (2013a) own study for the 'place inherited' variety of people-place relations.

It should be noted that examination of the correlation matrix in this study (table 6.12) showed no association between the 'traditional-place relative' and 'Symbolic fit of the PLP in surrounding CS' variables. Whilst this might be seen to contradict findings from the narrative interview study, which showed that traditionally attached residents were more likely to accept the proposed power line on the basis that they had lived and grown up in the place and were therefore familiar with existing electricity infrastructure in the countryside around Nailsea, one would not necessarily expect the 'TA-PReI' variable to associate with the 'Symbolic fit of the PLP in surrounding CS' variable.

This is firstly because it was the experience of having grown up in and become accustomed to existing nearby electricity infrastructure (i.e. life-place trajectories) that explained the perceived fit between representations of the surrounding countryside and power line proposal, not the variety of people-place relations (traditional attachment) per se. In addition, given that a composite 'Traditional-place relative' factor solution and subsequent scale measure emerged and was included in the correlation matrix (table 6.12), it cannot be implied that traditional attachment, by itself, did not associate with the 'Symbolic fit of the PLP in surrounding CS' variable. For this to be true, traditional attachment would have had to have emerged as a separate and distinct factor solution and subsequent scale measure, which was not the case. Future studies where traditional attachment does emerge as a separate factor solution could however seek to investigate its association with the 'Symbolic fit of the PLP in surrounding CS' variable and thus attempt to corroborate the above-mentioned finding from the narrative interview study (Chapter four).

Whilst not overlooking the fact that place relative items combined with traditional attachment items following principal components analysis, studies one and two of this thesis showed that people identifying with the place relative variety were seen to be weakly attached to Nailsea and were indifferent to the power line proposal on the grounds that it wasn't seen to disrupt place bonds that were already tenuous. One would therefore not necessarily expect people identifying with the 'traditional attachment – place relative' variety to feel that strongly

about the potential negative impacts of the power line proposal on surrounding countryside areas and upon pre-existing place bonds. This could explain the apparent lack of salience of this variety in predicting stance towards the proposed power line.

Overall, findings from study one in particular showed that disruption or enhancement to existing varieties of place attachment was not evidenced and was therefore not seen as salient in informing people's responses to the HPC power line proposal. The strong unself-conscious bond to Nailsea may have rendered traditionally attached participants less reflective of and thus less sensitive to potential disruptive impacts of place change on this existing type of place bond. Disruption of existing place bonds was, perhaps more surprisingly, not evidenced amongst actively attached participants. The lack of statistical significance of the 'Traditional attachment – place relative' and 'active attachment' varieties in predicting stance towards the power line proposal thus corroborates findings from the preceding narrative interview study.

It is also interesting to note that varieties of non-attachment to Nailsea (in this case, place alienated and placeless varieties) did not emerge as significant predictors of stance toward the proposed power line. These are variables omitted in Devine-Wright's (2013a) previous paper and this study sought specifically to investigate the predictive significance of these varieties in explaining stance toward the power line proposal. Analysis of interview data for studies one and two showed that participants identifying with these forms of non-attachment tended either to dislike or feel indifferent towards Nailsea as a place and were weakly attached. They were also not overly concerned with the potential impacts of the power line proposal upon Nailsea and nearby countryside areas nor upon their emotional bonds to these locales (which were weak or non-existent), expressing indifference toward the proposal on these grounds. One might therefore surmise that the place alienated and placeless varieties would not be salient variables in predicting stance toward the proposed power line, thus corroborating findings from the preceding qualitative-based empirical studies.

The lack of predictive significance of both varieties of attachment and non-attachment would suggest that Nailsea as a 'locus of attachment' or non-

attachment was not salient in shaping responses to the power line proposal (Williams, 2014). This might be anticipated given findings from studies one and two that showed disruption or enhancement of varieties of people-place relations was not evidenced and did not therefore form a salient basis for informing responses to the power line proposal.

A broader point to make about this lack of predictive significance is one of place scale. The questionnaire survey attempted to capture varieties of place relations to *Nailsea*, whilst attempting to capture meanings relating to the *countryside around Nailsea*. Step three of the regression analysis showed that the variable 'Symbolic fit of the PLP in surrounding CS' emerged as a significant predictor of power line stance, suggesting that congruence between countryside and project-based meanings, as opposed to forms of attachment/non-attachment to Nailsea, are more salient amongst respondents in shaping their responses toward the power line proposal. Whilst the proposed power line may not be seen to affect or disrupt people's types of emotional bonds to *Nailsea*, it could be seen to have a more salient impact on people's views and representations of the *surrounding countryside*, which is where the power line would ultimately be sited. The proposed power line may be experienced as having a more tangible and direct impact upon representations of surrounding countryside areas than it does upon people's varieties of people-place relations to Nailsea.

- *Representations of the countryside around Nailsea;*

Whilst two countryside representations ('Countryside replete with familiar electricity infrastructure' and 'Countryside as natural') emerged as significant predictors of stance toward the PLP when entered in step 2 of the regression analysis, they did not come out as significant predictors when controlled for with project-based variables. However, findings from a second hierarchical linear regression analysis - where the variable 'Symbolic fit of the PLP in surrounding CS' (or social representations of the power line proposal) served as the dependent variable (DV) - suggests that this variable may mediate the relationship between the two countryside representations and stance towards the power line proposal during step three of the primary regression analysis. In the second hierarchical linear regression analysis - where socio-demographic and then place-based variables (varieties of people-place relations and

countryside representations) were inserted into the regression model - two countryside representation variables emerged as significant predictors of 'Symbolic fit of the PLP in surrounding CS', with 'Countryside as replete with existing electricity infrastructure' coming out with the highest standardised Beta value. This might therefore suggest that placing the 'Symbolic fit of the PLP in surrounding CS' predictor variable at step three of the primary regression model may have mediated the role of the preceding two countryside representation variables in explaining stance toward the power line proposal.

The fact that the predictor variable 'Symbolic fit of the PLP in surrounding CS' emerges as a significant predictor in the main regression analysis, suggests that the way in which the power line proposal is seen (or imagined) to symbolically fit within the countryside around Nailsea is highly salient in shaping responses toward the proposal. Indeed, the results suggest that when the power line proposal is represented as a 'familiar' part of the surrounding countryside and as blending into this locale (characterised as replete with existing electricity infrastructure) respondents tend to support the project.

These results support a number of studies that suggest the perceived fit (or lack of fit) of a project in a particular place can shape responses to technology proposals. Devine-Wright and Howe's (2010) study, for example, showed that in the coastal town of Llandudno, North Wales, a proposed off-shore wind farm was represented as 'monstrously damaging', 'industrialising the area', and 'fencing in the bay', thus threatening a place constructed as 'natural' and restorative and resulting in negative attitudes toward the project. McLachlan's (2009) study of a wave energy project in Cornwall, UK, revealed various 'symbolic logics' of opposition and support stemming from congruency or antagonism between representations of place and tidal technology. Furthermore, Anderson (2013) showed that residents of North-West Tasmania represented the rural landscape and plantation forestry in different ways and that these differences in 'fit' associated with particular responses to plantation forestry.

Results of study three suggest that the power line proposal is seen to be congruent with a countryside area characterised as replete with existing electricity infrastructure. This suggests that the proposed power line, when sited

in a countryside area containing existing electricity infrastructure, may be more likely to garner project acceptance. This perceived fit between place and project representations and associated project support corroborates findings from a study by Venables et al (2012), where attitudes to proposed new nuclear power facilities in the UK were shown to be dependent on the extent to which existing power plants were perceived to contribute toward the sense of place of nearby local communities. Participants who saw an existing power station as a 'familiar' and 'non-threatening' aspect of the place were more accepting of a new proposed nuclear power facility. Venables et al (2012:380) conclude: *'For such residents, the prospect of a new power station being built at the existing local site may represent a potentially unremarkable and unthreatening addition to the landscape...'*

We should, however, be wary of concluding that siting energy infrastructure developments where existing types of technology already exist will be more likely to generate project support. Findings from studies one and two would suggest that only particular groups of people (with particular *life-place trajectories*) – those who grew up and lived all or most of their lives in Nailsea and identified with the traditional or traditional-active forms of attachment – saw the proposed power line as fitting into the surrounding countryside. Those who, on the other hand, had moved to Nailsea as adults and identified with active attachment, tended to represent and objectify the proposed power line as industrialising a countryside area characterised as natural, scenic and restorative. This was also found to be the case in the study by Venables et al. (2012:380): *'...some respondents suggested that they felt a strong SoP, but also that they perceived the power station to sit in contrast to the local landscape'...* *'For these individuals, the visual presence of the power station contrasts sharply with an otherwise rural and largely unspoiled landscape'*.

This suggests that the ways in which people view proposed technologies as fitting, or not, into particular locations may depend on their *life-place trajectories*. Findings from studies one and two of this thesis would support this conclusion – those who had grown up and lived much of their lives in Nailsea had become more habituated to existing electricity infrastructure in the surrounding countryside. They were therefore more likely to characterise the countryside as replete with existing electricity infrastructure, and objectify the proposed power

line as non-threatening and 'familiar'. Future studies should thus be sensitive to people's residential biographies prior to forming conclusions on the basis of place/technology representations alone.

Whilst place as a 'locus of attachment' or non-attachment (i.e. varieties of people-place relations) (Williams, 2014) did not emerge as important in influencing stance(s) towards the power line proposal, symbolic or metaphorical representations of the power line proposal and their perceived fit with particular representations of the countryside were, in contrast, highly salient in this regard, thus supporting findings from the preceding qualitative-based empirical studies that showed degree of fit between representations of the countryside and interpretations of the power line proposal to be a salient factor in shaping responses toward the project. This research further suggests that life-place trajectories may shape people's characterisations of place and the degree to which proposed technologies are seen to fit, or not, within those locations, influencing responses to proposed place change.

6.3 Role of project-based variables;

Project related variables explained an additional 48.5% of the variance in power line acceptance, indicating the high salience of these constructs in predicting stance toward the project. Three variables emerged as significant, including, in order of importance, 'Symbolic fit of the PLP in surrounding CS', 'Positive impacts', and 'Procedural Justice'.

- Symbolic fit of the power line proposal in the countryside around Nailsea;

The first, 'Symbolic fit of the PLP in surrounding CS', has been discussed in the previous section in light of the fact that this variable seeks to establish how the HPC power line proposal is seen or interpreted to fit in the countryside around Nailsea (implying both project and place-based dimensions). Results showed that this independent variable emerged as the most strongly predictive of power line stance of all the project-based variables. Those who saw the proposal as blending into the nearby countryside (seen as replete with existing electricity infrastructure) were more likely to support the project. Conversely, results from the second hierarchical linear regression analysis indicated that high agreement that the countryside is natural associated with the belief that the power line

proposal would industrialise the nearby countryside. This is seen to support existing research (Devine-Wright & Heath, 2010; Mclachlan, 2009; Anderson, 2013; Venables et al., 2012) showing that perceived fit, or lack of fit, between place and project meanings result in positions of acceptance or opposition to project proposals. In particular, when proposed technology is seen to be 'in place' then it is more likely to be accepted, and when it is seen to be 'out of place' it is likely to be objected to (Cresswell, 2004).

- Positive Impacts;

Positive impacts emerged as a significant predictor of stance toward the power line proposal. Higher agreement with positive impacts of the project (e.g. providing local jobs, helping to keep the country's lights on, and helping to tackle climate change) associated with acceptance of the power line proposal. Although the independent variable 'negative impacts' was omitted from the primary regression analysis due to high correlation coefficients with other predictor variables, the finding above supports existing studies (Upham & Shackley, 2006; Devine-Wright & Heath, 2010; Devine-Wright, 2013a) that suggest positive impacts tend to relate with project acceptance/support.

This result fits into wider literature on distributive injustice and responses to locally unwanted land uses. A perceived imbalance between costs and benefits (higher costs than benefits) has been shown to result in perceived distributive injustice and opposition to locally unwanted land uses (Lima, 2006; Mannarini et al., 2009). For example, a study by Lima (2006) showed that perceptions of distributive injustice were seen to predict opposition to a waste incinerator plant. Whilst any commentary on distributive justice based on the data analysis for this study is somewhat limited, partly due to the exclusion of negative impacts, findings from the focus group interview study (Empirical study chapter 2) suggests that: (1) Perceptions of both positive (typically non-local) and negative (typically local) impacts stemming from the HPC power line proposal were evident; (2) Some participants expressed a perceived imbalance between receipt of costs and benefits from the proposed power line, with some feeling that they were left with unwanted local costs (e.g. likely creation of a visual eyesore, reducing local property values, damaging local people's health through exposure to electro-magnetic fields) and few if no local benefits.

Together, these findings suggest that an apparent imbalance between the positive (benefits) and negative (costs) aspects of a technology proposal – in particular, high local project costs versus low perceived benefits – is likely to engender objection. Attempts to re-dress this imbalance with regards energy infrastructure development proposals in the UK have typically come in the form of community benefits (HM Government, 2009; Cowell et al., 2011; Bristow et al., 2012) that are employed with the objective of increasing local acceptability. In the context of wind farms, community benefits are commonly provided by large commercial developers who finance a community benefit fund and then determine how the funds are to be spent (e.g. reducing local energy bills, providing donations to local groups/clubs) (Walker et al., 2014). However, it would be an over-simplification to suggest community benefit provision will necessarily lead to project acceptance given evidence that benefit provision can be perceived as a form of bribery with the effect of lowering project acceptance (Walker et al., 2011; Walker et al., 2014; Tobiasson & Jamasb, In Press).

In the context of high-voltage power line proposals, a small amount of research has investigated local public evaluations of proposed mitigation measures to reduce the visual impact of new power lines. Following a UK pylon re-design competition in 2011, a new T-shaped pylon was put forward for future large-scale grid developments. Whilst the T-shaped pylon was more strongly preferred than the traditional A-frame pylon design, other mitigation measures, such as undergrounding new lines and routing them away from homes and schools were ranked more highly as preferred options (Devine-Wright & Batel, 2013). Whilst there have been recent calls for power line companies in the UK to make benefits packages available to rural communities (Renewable Grid Initiative, 2011) there is a need for further research that investigates perceptions of various types of benefit provision (Community funds, Benefits in kind, Local ownership, Local contracting – Cass et al, 2010) in the context of high-voltage power line proposals.

- Perceived Procedural Justice;

Procedural justice emerged as the third most significant predictor of stance towards the power line proposal, with higher perceived procedural justice relating to project acceptance. This suggests that those who feel that the

planning process is fair, that people are given enough time to respond to the proposal (during National Grid's phases of public consultation) and believe that local people have been able to influence decision-making around the siting of the power line, are more likely to report greater acceptability toward the project.

This finding sits within existing studies that have explored associations between beliefs about the fairness of planning and consultation procedures and acceptance of energy infrastructure proposals. Devine-Wright's (2013a) study of a proposed high-voltage power line in South-West England (Hinckley Point C) found that beliefs of unfair and unjust planning consultation were strongly associated with objections toward the power line. Furthermore, several other studies (Devine-Wright et al., 2010; Cotton & Devine-Wright, 2011b) show that local residents are not seen to have a meaningful level of involvement in the decision-making process over power line siting. Cotton and Devine-Wright's (2011b) Q-method study of electricity transmission siting in the UK established a clear discourse whereby respondents identified a need for greater involvement of local community actors in decision-making, reported a perceived lack of opportunity for meaningful participation by community members, and expressed pessimism concerning the ability of local protestors to influence the decision-making process.

Such concerns have been shown to be exacerbated by electricity network operators' beliefs that locally affected communities are unable to make strategic level decisions around power line siting (an expression of the NIMBY assumption), resulting in 'downstream' involvement of local communities in decision-making and a tendency to engage in community consultation mechanisms that emphasise information provision to remedy the presumed information deficit of local residents (Cotton & Devine-Wright, 2010, 2011b).

The result from the hierarchical linear regression analysis suggests that planning and consultation procedures that are seen to be fair and just, and where local residents are able to meaningfully shape decision-making around power line siting, may likely foster greater project acceptance. This finding may relate to a particular stage of the life course of the HPC power line proposal. When the power line was first proposed and consulted upon in 2009, local residents were given an opportunity to provide feedback on three proposed

overhead broad route corridors. It was deemed unfair by some local residents that National Grid had only chosen to consult after determining three broad route corridors that would comprise overhead power lines (undergrounding or placing cables sub-sea were not part of initial plans put forward by National Grid).

Following a third stage of public consultation (which ran from September 2011 to the spring of 2013), where local feedback was sought on the detailed connection to be made within the preferred route corridor, National Grid announced that in response to feedback, the following alterations to prior siting plans would be made: (1) Over 8km of the connection would be placed underground through the Mendip Hills Area of Outstanding Natural Beauty (AONB); (2) Eight kilometres of an existing 132,000 volt overhead line from Nailsea to Portishead would also be put underground (National Grid, 2014). Interestingly, participants from study two (focus group interviews) felt that those local communities consulted upon at this later stage had been able to exercise greater decision-making around the siting of the power line and that their feedback had, to some degree, been acted upon by the developer.

This may reflect a shift in perceptions toward greater procedural justice over the life course of the project (given the proposed siting alterations made by National Grid following the third stage of public consultation in 2013), as evidenced by results from this regression analysis which show that greater perceptions of fairness in the planning process was seen to significantly predict power line acceptance. This may point to a broader trend toward greater acceptability of the power line proposal over the life course of the project. Devine-Wright's (2013a) study reported predominant levels of objection to the HPC power line proposal (data collection was conducted in August 2010), whereas this study captured a relatively high degree of project acceptance. This could indicate that greater perceived fairness in the planning process, resulting from National Grid's proposed siting alterations in 2013, may be one factor fostering greater project support over time.

7. Conclusion:

The first aim of this study (research question 1) set out to investigate the relative importance of socio-demographic, place-based and project-based

factors in shaping responses to the HPC power line proposal. This research aim arose in light of findings from studies one and two that showed that interview participants responded differentially toward the proposed power line on the basis of a range of both place and project-related factors. In particular, these interview-based studies showed that interview participants could be differentiated according to their residential biographies (or 'life-place trajectories'), and that these were seen to inform their variety of place relation to Nailsea, their representations of both Nailsea and the surrounding countryside, and their subsequent experiences of, symbolic representations, and responses to the HPC power line proposal. The ways in which the proposed power line was seen to fit within divergent representations of the surrounding countryside emerged as central in understanding participants' responses to the power line project.

This third study was focused on examining the extent to which distinct place-based variables (namely, varieties of people-place relations and representations of the surrounding countryside), along with project-related factors (symbolic fit of the power line proposal in the surrounding countryside, procedural justice, positive impacts, and trust group two) explained stance toward the proposed power line amongst a representative sample of Nailsea residents. Devine-Wright's (2013a) study sought to investigate the predictive significance of socio-demographic, place and project-based variables in explaining objection to this same proposal. The study, however, omitted varieties of non-attachment to the residence place: '*...the study is limited by not capturing the three forms of non-attachment to place outlined in previous research (i.e. relativity, alienation and placelessness. Future studies of technology acceptance should seek to incorporate these constructs...*' (2013:16), as well as variables for place and project-based meanings. This study therefore arose, in a second instance, to build upon Devine-Wright's existing study through the novel inclusion of these variables in assessing their predictive significance utilising hierarchical linear regression analysis.

This section will conclude by outlining the key results and discussion points stemming from this analysis around the role of socio-demographic, place and project-based factors in explaining stance toward the power line proposal.

- *Socio-demographic variables* did not emerge as significant predictors of power line stance. This contrasts with studies where some socio-demographic factors were found to be significant predictors of stance towards energy infrastructure developments (Vorkinn & Riese, 2001; Devine-Wright, 2013a). Devine-Wright's study (2013a), for example, found that length of residence predicted objections to the HPC power line proposal, i.e. the longer one had lived in Nailsea the more likely they were to object. However, the lack of predictive significance of socio-demographic variables also corroborates findings in a study by Devine-Wright (2011), where socio-demographic variables (gender, age, education) were *not* found to be significant predictors of acceptance toward an installed tidal energy convertor in Northern Ireland.

It may be that that socio-demographic variables, namely length of residence, may have become less salient in explaining stance towards the HPC power line proposal as the project has progressed, although why this might be remains an open question. Given the low number of studies that have utilised socio-demographic factors for predicting stance toward energy infrastructure projects and the variability in results so far, it would be useful to conduct further research that queries the relative importance of the socio-demographic dimension when investigating public responses to different energy infrastructure developments.

- *Varieties of people-place relations* did not emerge as significant predictors of stance toward the proposed power line. This contrasts with findings in Devine-Wright's (2013:13) study, where the active form of attachment significantly predicted objection to the HPC power line proposal: '*Individuals with high levels of place inherited were more likely to express strong objections to the power line*'. Devine-Wright speculated that this might be due to particular characteristics of this type of place bond, with residents typically showing a greater tendency toward discovering one's residence place and greater potential to become aware of disruptive forms of place change.

It is perhaps curious, in this case, that active attachment did not emerge as a significant predictor of stance towards the power line. This apparent lack of significance could be attributed to the fact that items in the questionnaire survey attempted to capture varieties of people-place relations to Nailsea (the town), and not to the surrounding countryside areas. The strong predictive significance

of the 'Symbolic fit of the PLP in surrounding CS' variable (i.e. the extent to which the power line proposal is seen to fit, or not, within representations of the nearby countryside) might suggest that respondents placed more importance upon the potential impacts of the proposed power line on *surrounding countryside areas* (which is where the power line would actually be sited), than on the town of Nailsea. This explanation could equally be applied to the apparent lack of predictive significance of the 'traditional – place relative', place alienated and placeless varieties, thus corroborating findings from the preceding interview-based studies that found that disruption or enhancement to existing varieties of place attachment was not evidenced and was therefore not seen as salient in informing people's responses to the HPC power line proposal.

A novel aim of this study was to establish the predictive significance of varieties of non-attachment to power line stance, variables that have up till now been omitted from prior studies (Devine-Wright, 2013a). The lack of predictive significance of the place alienated and placeless varieties supports findings from studies one and two, where weak or non-existent place attachment and the attribution of negative meanings to Nailsea were linked to a relative indifference toward the power line proposal and its likely impacts on people's place relations and place-based meanings (or representations). It is perhaps not surprising in this case that these two varieties did not emerge as important or salient factors in explaining stance toward the proposed power line. There was in addition no evidence from interview-based studies, amongst non-attached participants, that the proposed power line would likely enhance the character of Nailsea and the surrounding countryside, nor their varieties of place relations to Nailsea.

Findings from this study show that Nailsea as a 'locus of attachment' or non-attachment was not salient in shaping responses to the power line proposal (Williams, 2014). The relative importance of the 'Symbolic fit of the power line proposal in surrounding countryside' variable could indicate that the way in which the power line is seen to blend into or industrialise the surrounding countryside is more salient to people than any impacts that the power line proposal might have on types of people-place relations to Nailsea. This however does not necessarily negate the value of investigating the role of varieties of people-place relations upon people's responses to forms of place

change. To date, there are a very few studies that have attempted to go beyond intensity of place attachment measures and applied varieties of people-place relations to the study of public responses to energy infrastructure projects. Given its infancy, studies could still adopt a typology of people-place relations as a fruitful basis to develop our understandings of the impacts of proposed forms of place change on people's place bonds, and to provide greater empirical substance to this domain of research.

In addition, the findings from this study suggest that people may not fall neatly into one of the existing five types of people-place relations as formulated in prior research (Hummon, 1992; Lewicka, 2011b). This was shown to be the case in empirical study chapter one, where a novel composite variety named 'Traditional-Active' attachment was revealed, although such a novel variety did not emerge in this study following principal components analysis. This study did, however, reveal a further novel composite variety of people-place relations which comprised items from both the traditional attachment and place relative varieties of place orientation. This is a puzzling finding since one would not immediately expect items from these two varieties of people-place relations to group together. This warrants further research into the presence of both of these novel composite varieties of place orientation. This could, for example, comprise running a factorial analysis on a larger set of questionnaire survey items that attempt to capture both the existing varieties of people-place relations and the novel varieties amongst a larger representative sample of individuals.

- The *degree of congruence between place and project-related meanings* emerged as a highly salient factor in explaining power line stance in the form of the 'Symbolic fit of the PLP in surrounding CS' variable. The predictive importance of this variable suggests that social representations of the power line proposal are shaped within the context of shared meanings (or representations) attributed to the countryside around Nailsea, and that their degree of congruence can likely shape responses toward the proposed power line.

Results from the hierarchical linear regression analysis suggest that those who saw the power line proposal as blending into a nearby countryside area replete with existing and familiar electricity infrastructure were far more likely to be

accepting of the power line proposal. This supports findings from studies one and two which showed that those identifying with the traditional and traditional-active varieties of place relations tended to see the power line proposal as blending into the surrounding countryside and were accepting of the proposal. Conversely, those who represented the power line proposal as industrialising the countryside locale objected to the project, corroborating findings from the preceding interview-based studies that showed those representing the countryside as 'natural' interpreted the proposed power line as out of place and opposed the project on this basis (Cresswell, 2004).

This supports findings from a study by Venables and colleagues (2012), which found that participants who saw an existing nuclear power plant as a 'familiar' and 'non-threatening' aspect of the place were more accepting of proposals to construct a new power plant near to that same site. It would be tempting to suggest therefore that siting energy developments close to existing infrastructure would be more likely to generate project acceptance. But we should be cautious of such a conclusion. Findings from studies one and two suggest that congruence between countryside and project-based representations were shaped by people's life-place trajectories. Those, for instance, that grew up and lived all or most of their lives in Nailsea saw the proposed power line as fitting into the surrounding countryside. Those who, on the other hand, had moved to Nailsea as adults and sought continuity in semi-rural settlement types tended to represent and objectify the proposed power line as 'industrialising' a countryside area characterised as natural, scenic and restorative. Future studies should therefore be sensitive to the interplay between people's life-place trajectories and constructs around the congruence between place and project-based representations.

A novel aim of this study was to assess the relative importance of symbolic fit of the power line proposal in the nearby countryside for explaining stance toward the project. This study has shown that this factor, as opposed to varieties of people-place relations, is highly salient in shaping people's responses to the power line proposal.

- *Perceived procedural justice* emerged as a significant predictor of power line acceptance. This suggests that greater perceived fairness in National Grid's

planning and consultation process, and a greater sense of being able to influence decision-making around siting of the power line, associated with project acceptance. This finding is in contrast to Devine-Wright's (2013a) study which found that perceived procedural injustice predicted objection to the same proposed power line.

It is worth noting that these respective studies were conducted at different times along National Grid's planning consultation process. Devine-Wright's study was conducted in August 2010, when National Grid were consulting on three broad overhead route corridors which were seen to be unfairly imposed upon local residents (undergrounding or a sub-sea option were not part of siting plans at this time). Stage three of National Grid's planning consultation process sought residents' views on the detailed siting of the preferred route corridor. Following this stage, a number of siting concessions were made by National Grid. These included undergrounding the new line through the Mendip Hills area (an area of outstanding natural beauty), removing an existing 132kV line, undergrounding a second 132kV line from Nailsea to Portishead, and reducing the number of pylons sited along the new line by 90.

Findings from study two indicated that some people saw these concessions as a fair 'compromise' and evidence that National Grid had acted upon residents' views. The siting concessions introduced by National Grid in 2013 were also seen by some as evidence that local communities were able to influence decisions regarding the siting of the power line and may explain the importance of perceived procedural justice in this study. Developers that are therefore seen to act in a meaningful way upon feedback from local communities on energy infrastructure siting and enable greater levels of public participation may be more likely to garner project acceptance.

- *Positive impacts* also emerged as a significant predictor of stance toward the power line proposal. Higher agreement with positive impacts of the project (e.g. providing local jobs, helping to keep the country's lights on, and helping to tackle climate change) associated with acceptance of the power line proposal. This corroborates research from Devine-Wright (2013a) that showed positive impacts were seen to predict stance toward the HPC power line proposal. Despite the omission of negative impacts as a predictor variable in the analysis,

this finding fits into wider literature on distributive justice and responses to locally unwanted land uses, with studies – including the second empirical study chapter of this thesis - showing that a perceived imbalance between costs and benefits (higher costs than benefits) has been shown to induce opposition to locally unwanted land uses (Lima, 2006; Mannarini et al., 2009). Developers would do well to communicate clearly the potential positive impacts and minimise the likely negative impacts stemming from a power line development.

Some research has looked at ways of mitigating against negative impacts from energy infrastructure projects. In the context of high-voltage power line proposals, some research has investigated public evaluations of alternative pylon designs, aimed at reducing the visual impact of large-scale electricity pylons (Devine-Wright & Batel, 2013). Findings suggest that the new T-shaped pylon was more strongly preferred than the conventional A-frame pylon design, but that other measures, such as undergrounding or routing power lines away from homes and schools were ranked more highly. Whilst there have been recent calls for power line companies in the UK to make benefits packages available to rural communities (Renewable Grid Initiative, 2011) there is a need for further research that investigates perceptions of various types of benefit provision (Community funds, Benefits in kind, Local ownership, Local contracting – Cass et al, 2010) in the context of high-voltage power line proposals.

8. Limitations of this study:

Whilst the emergence of a composite ‘Traditional attachment – Place relative’ variety following principal components analysis of the twenty place relations items was unexpected, the inclusion of a place relative item (‘I could equally well live here as in any other place’) within the placeless factor solution could well be attributed to similarities in wording and subsequent meaning between the items. This place relative item could potentially have been interpreted as implying a placeless variety of place relation, as opposed to supporting the view that some people identified with elements of both varieties. Future survey studies that include items for all five existing varieties of people-place relations might consider replacing the place relative item above with a statement that more accurately reflects this place relation.

The loss of predictive significance of the two countryside representation scales ('Countryside as replete with familiar electricity' and 'Countryside as natural' following step two of the hierarchical linear regression analysis (see table 6.13) may indicate a mediating effect of the 'Symbolic fit of PLP in surrounding countryside' variable. This would partly be evidenced by: (1) a relatively high correlation coefficient between the 'Countryside as replete with familiar electricity' and 'Symbolic fit of PLP in surrounding countryside' variables (.522); and (2) the predictive significance of the two countryside representations in explaining 'Symbolic fit of PLP in surrounding countryside' (when a secondary regression analysis was undertaken). Although VIF, tolerance levels, and a correlation coefficient below .7 would indicate the assumption of Multicollinearity was met, future quantitative-based studies investigating perceived fit between place and project meanings should be careful not to create scale measures that can be misconstrued as sharing similar underlying meanings.

Whilst the use of a multi-item scale for capturing stance toward the power line proposal was a relatively novel approach, there was some ambiguity when interpreting the results of the regression analysis regarding what constituted acceptance versus support, and full rejection versus opposition. In a sense, this removed some of the utility of a multi-item scale approach in this regard, since no clear link between a predictor variable and a specific stance toward the power line proposal could be clearly established, but rather had to be estimated based on the strength and valence of the standardised Beta values.

Due to high correlation coefficients and the desire to avoid violating the assumption of Multicollinearity, three predictor variables (place attachment intensity, negative impacts, and trust group 1) were omitted. Whilst a worthwhile decision to take given Multicollinearity issues, it was unfortunate that these variables had to be removed from the primary hierarchical regression analysis, since this takes away from the overall explanatory power of the model and potential for discussion of the findings of the regression analysis in light of existing studies and literature.

Chapter Seven: Discussion and Conclusion

In the introductory chapter, two overarching research questions guiding this PhD research project were outlined. This conclusion chapter will now return to these overarching research questions and seek to conclude by looking across the three empirical study chapters.

1. Toward the temporal and dynamic study of people-place relations – ‘life-place trajectories’ informing people-place relations to the current residence place:

- *The temporal and dynamic study of people-place relations;*

The introductory chapter of this PhD thesis outlined two overarching research questions that were seen to encompass a series of more specific research aims and related questions. The first of these asked to what extent does tracing people’s place relations across the life course (i.e. people’s ‘*life-place trajectories*’) enable us to better understand the processes of attachment and/or detachment to/from one’s current residence place.

To date, a large proportion of research into people-place relations has tended to adopt a structural approach to the study of place-related concepts, such as place attachment, varieties of people-place relations, and place identity. This has stemmed from a predominant use of cross-sectional research designs. Prominent examples of research in this vein include Scannell and Gifford’s (2010) multi-dimensional conceptual model of place attachment, a study by Hernandez et al. (2014) that positions place attachment as either a one-dimensional, multi-dimensional or superordinate conceptual framework, Hummon (1992) and Lewicka’s (2011b) elaboration of five varieties of people-place relations, and studies investigating the concepts of place identity (Proshansky et al., 1983) and place-related symbolic meanings (Devine-Wright & Howes, 2010; Anderson, 2013).

A number of studies have, however, attempted to examine the effects of changes to people and changes to places upon place attachment dynamics (Feldman, 1990; Twigger-Ross & Uzzell, 1996; Hay, 1998; Fried, 2000; Devine-Wright, 2014). Despite the value of this literature, there is a lack of research that

investigates the dynamic nature of place attachment and varieties of people-place relations across the life course. In light of this knowledge gap, this PhD research project sought - by asking a series of more specific research questions - to investigate the patterns of people's identification with varieties of people-place relations across the life course of individuals (termed 'life-place trajectories'), the processes informing or underlying these life-place trajectories, and the ways in which they were seen to inform the elaboration of specific varieties of people-place relations and place-related symbolic meanings (or social representations of place) to research participants' current residence place (the town of Nailsea and surrounding countryside areas, in South-West England).

These research aims were attended to principally through a narrative interview study (n=25), and also by employing a further focus group interview study (n=5). Narrative interviews were deemed particularly well-suited to investigating the dynamic (or in some cases non-dynamic) patterns of people's varieties of people-place relations across residence places and over the life course of individuals. Analysis of both narrative interview and focus group interview transcripts indicated that *five distinct and novel 'life-place trajectories' were elaborated and seen to inform Nailsea residents' varieties of people-place relations and place-related symbolic meanings to Nailsea and the surrounding countryside*. See table 7.1 below for a summary of these findings.

The life-place trajectory entitled 'Traditional attachment and long-term residence' indicated the roles of long-term residence in place and autobiographical rootedness/insideness in informing an unchanged taken-for-granted traditional variety of attachment to Nailsea across the life course of individuals. It is surmised that those expressing this life-place trajectory have held a traditional type of attachment to the current residence place that has remained unchanged over the life course due to a lack of competing place experiences that might otherwise, as Hummon (1992:259) suggests, 'raise such identification to consciousness and transform it'. Such a trajectory tended to inform social representations of Nailsea as a 'secure' and 'familiar' place, and the surrounding countryside as replete with existing electricity infrastructure.

The life-place trajectory entitled 'Home core traditional-active attachment' is characterised by participants that grew up in Nailsea as children and adolescents, moved elsewhere for short periods of time having had negative life experiences in those places, and ultimately returned to Nailsea seeking to re-establish a strong but taken-for-granted bond to the place. The decision to return and commit to life in Nailsea tended to be based on a strong social support network in the place and representations of Nailsea as 'home', echoing humanistic geographers' understandings of home as the 'place *par excellence*' (Giuliani, 2003:158) – a site of unreflective security, comfort, certainty and familiarity in an otherwise insecure, unstable and nameless world (Dovey, 1985; Tuan, 1980).

Those experiencing this particular place trajectory were seen to express the traditional or traditional-active varieties of place orientation. Whilst they had re-assumed a place bond that was largely taken-for-granted, those evoking the 'traditional-active' variety expressed some conscious recognition of the valued features of life in Nailsea and an interest in the goings-on of the place. However, the presence of albeit short-term competing place experiences, was not seen to be sufficient to significantly 'raise such identification to consciousness' (Hummon, 1992:259) – in other words, life experiences in different residence places did not appear to result in the development of a more self-aware or self-conscious bond toward Nailsea upon return to the place amongst these participants. This finding indicates the value of future narrative or life history-based research that explores further the ways in which different degrees and types of competing place experiences (particularly amongst those experiencing the 'Home core traditional-active attachment' life-place trajectory) informs the degree to which people take their current residence place for granted or engage in a more self-conscious way towards it.

The life-place trajectory entitled 'Active attachment and continuity in settlement type' showed how a preference for and active attachment toward prior semi-rural residence places (and identification with generalised features of a semi-rural settlement type, such as valued scenic countryside settings and outdoor recreational activities), led to the development of active attachment to Nailsea and the surrounding countryside and continuity across semi-rural settlement

types (Feldman, 1990). These participants tended to represent the countryside around Nailsea as 'natural', scenic and picturesque.

The opposite was true for those experiencing the 'Discontinuity in settlement type and place estrangement' place trajectory. For these participants, preference for valued features of larger towns and Cities resulted in discontinuity in settlement types upon relocating to Nailsea and subsequent formation of the place alienated or place relative place orientations. Those participants with especially high-levels of residential mobility over the life course – the 'High residential mobility and placelessness' life-place trajectory – were seen not to form bonds with residence places (or places generally) thus expressing the placeless variety of place orientation across the life course and emphasising non-territorial identity formation based on the family unit (Lewicka, 2011b). Those experiencing both of these life-place trajectories tended to express varieties of non-attachment to the residence place and very few, if any, social representations of the countryside around Nailsea. This may be attributed to the relative lack of importance or emotional investment felt towards this particular locale.

Life-Place Trajectories	Varieties of people-place relations to Nailsea	Representations of Nailsea	Representations of the countryside around Nailsea
Traditional attachment and long-term residence	Traditional Attachment	Secure Safe Familiar Ancestral ties	Scenic, but replete with existing electricity infrastructure
Home Core traditional-active attachment	Traditional Attachment & Traditional-Active Attachment	Secure Settled Home Social support	
Active Attachment and continuity in settlement type	Active Attachment	Semi-rural Friendship Nice neighbours Community	Natural Scenic Picturesque Recreation
Discontinuity in settlement type and place estrangement	Place relative & Placeless	Conservative Isolated Boring	Picturesque
High residential mobility and placelessness	Placeless	Adequate facilities Family	None

Table 7.1: Life-place trajectories informing people-place relations to Nailsea

By adopting a temporal and dynamic approach to the study of varieties of people-place relations across the life course of individuals, this PhD thesis has added to our understandings of how and why people undergo processes of attachment or detachment (in the form of particular varieties of people-place relations) to the current residence place. *By going beyond structural approaches to the study of people-place relations, this thesis has made a novel contribution to our understandings of the processes of attachment and*

detachment to the residence place by employing narrative interviews to trace individuals' varieties of people-place relations across the life course.

- *Varieties of people-place relations;*

This PhD research further sought to confirm the presence of Hummon (1992) and Lewicka's (2011b) five-partite typology of people-place relations, as well as inquire into the elaboration of novel varieties. This research aim was attended to through the first two qualitative-based empirical studies, as well as through the third questionnaire survey study using principal components analysis.

The first two qualitative-based studies confirmed the existing typology of people-place relations, showing these place orientations to be fashioned upon divergent types of emotional place bonding (or lack thereof), social bonding, positive and negative place representations and life experiences in place. Furthermore, empirical study chapter three utilised principal components analysis and in so doing confirmed the presence of the active, place alienated and placeless varieties of people-place relations amongst a large-scale representative sample of Nailsea residents. Together, these findings provide support for the existing typology of people-place relations developed by Hummon (1992) and Lewicka (2011b) in their respective empirical studies.

Through thematic analysis of narrative interview transcripts *a novel hybrid variety of people-place relations named 'Traditional-active attachment' emerged* comprising a composite form of place orientation that shared characteristics from both the traditional (a taken-for-granted place bond) and active (an interest in the goings-on and historical roots of the residence place) types of place attachment. This novel variety of people-place relation to the current residence place was seen to stem from a life-place trajectory where participants had grown up in Nailsea, moved away for short periods of time, but ultimately returned seeking familiarity, stability and a social support network in a place regarded as 'home'. Despite the fact that this composite variety was not confirmed in the questionnaire survey study, *it does indicate empirically for the first time that people may not always express an affinity for one distinct pre-existing variety of people-place relations, thus blurring the lines between what have up until now been conceptualised as empirically distinct ways (or varieties) of relating to place.* This novel finding also suggests that the existing five-partite

typology of people-place relations can be enlarged to include this composite variety. Future research, in the form of a large-scale nationally representative UK sample, could attempt to replicate this novel variety and make inroads into investigating the further presence of hybrid varieties of place orientation.

Interestingly, principal components analysis in empirical study chapter three also showed the emergence of a composite 'Traditional attachment - place relative' variety. This factor loading is considered somewhat unusual, given that these two varieties have typically been shown to be characteristically and conceptually different in nature, and this may perhaps be attributed to a problem with measurement. Future research suggested above could seek to verify whether this composite variety re-occurs.

- The application of social representations theory to the study of people-place relations;

Research into people-place relations has, particularly in the fields of environmental and social psychology, been criticised for its adoption of a largely socio-cognitive approach which has tended to overlook the social construction of people-place relations (Stedman, 2002; Devine-Wright, 2009). Social Representations Theory (Moscovici, 1984; Wagner et al., 1999) developed out of a critique of the predominant socio-cognitive focus within social psychology and refers to the collective social construction and elaboration - via social interaction and communication across and between members of social groups and institutions - of novel or unfamiliar social objects or events into everyday 'common-sense' forms of social knowledge (or representations). *The theory was shown to be usefully applied in this PhD thesis to the study of people-place relations, by recognising that people's life-place trajectories and varieties of people-place relations can be located and observed as simultaneously psychological and social phenomena.*

By adopting a social representations theory lens, this PhD thesis conceptualised people's individual and personal emotional relationships with place(s) - i.e. their life-place trajectories and varieties of people-place relations to the current residence place – as situated and embedded within wider social representations of place and of ways of relating to place generally (Manzo &

Perkins, 2006; Devine-Wright, 2009), addressing the limitation of prior socio-cognitive oriented research on people-place relations.

Objectified social representations - in the form of metaphors, symbols and tropes - that are shared across social groups and societies were drawn upon by participants in order to legitimate their individual place relations across the life course. Place attached participants, for instance, drew on the socially shared idiomatic expression that it's 'natural (for people) to put down roots' in place, in order to situate their personal bonds to the place. This was challenged by others who evoked the 'fly the nest' representation founded on place non-rootedness and a preference for residential mobility over the life course. The use of focus group interviews, with their focus on inter-subjective interaction, was deemed particularly well-suited to opening up socio-cultural level representations of ways of relating to place generally. As Lauri (2009:650) states: 'The focus group is the thinking society in miniature and therefore it is ideal for bringing out the social representations held by participants on complex issues...'.

This PhD research has further been able to address the neglect of social representations theory to account for the possibility that the formation and acquisition of social groups' representations may be grounded in relationships with place(s). This research has thus successfully extended the focus and application of the theory to the study of people-place relations, by investigating social representations of the ways in which people relate emotionally to place(s) generally, a hitherto under-researched area and application of social representations theory. In addition, by adopting a more socio-cultural approach to the study of people-place relations (through the adoption of Social Representations Theory), this PhD thesis has contributed more broadly to social constructionist approaches to the study of place attachment and varieties of people-place relations, thus moving away from and attending to the critique of the socio-cognitive, quantitative-oriented approach that has arisen in the disciplines of environmental and social psychology (Patterson & Williams, 2008).

2. Understanding public responses toward a high-voltage transmission power line proposal:

The second overarching research question outlined in the introductory chapter of this thesis sought to ask what factors were seen to inform and shape local residents' views and responses towards a high-voltage transmission power line proposal. A series of more specific research aims and related questions were outlined in order to attend to this broader research goal, and these relate to the role of life-place trajectories as well as project-based factors in understanding people's responses to the HPC power line project.

- Life-place trajectories informing responses to the HPC power line proposal:

This thesis sought to investigate how particular life-place trajectories were seen to inform participants' experiences of and responses toward the HPC power line proposal in South-West England. *Novel findings from interview-based studies one and two showed that people's life-place trajectories were instrumental in informing distinct and divergent social representations of the countryside around Nailsea (and the English countryside generally), which in turn were seen to be more or less congruent with objectified social representations of the proposed power line.* The degree of congruence between social representations of the surrounding countryside and proposed power line resulted in divergent responses to the project proposal. These findings are summarised in table 7.2 below.

The combined findings from studies one and two showed that participants that had grown up and lived all or most of their lives in Nailsea tended to represent the surrounding countryside as replete with existing electricity infrastructure - given their probable familiarity with existing lower voltage electricity infrastructure in the area - and thus objectified the proposed power line as an acceptable and 'familiar' form of place change. Similarly, findings from study two indicated that those having grown up in functional and working countryside settings tended to represent the countryside around Nailsea (and English countryside generally) as inherently industrial and technological in nature which was seen to fit with objectified representations of the proposed power line as an acceptable form of industrial infrastructure. This supports existing research (McLachlan, 2009; Devine-Wright, 2011a, 2011b; Venables et al., 2012)

showing that when a proposed technology is seen to be 'in place' rather than 'out of place' (Cresswell, 2004), then acceptance or support of proposed place change is likely to arise. In particular, these findings support a study by Venables et al (2012) where participants who saw an existing nuclear power station as a 'familiar; and 'non-threatening' feature of a place were more accepting of a new proposed nuclear power facility.

Findings from studies one and two suggested that those with life-place trajectories centred upon growing up and life-long residence in Nailsea (and identifying with the traditional and traditional-active varieties of people-place relations), tended to be accepting of the HPC power line proposal due to familiarity with existing electricity infrastructure in nearby countryside areas. However, the following question can be posed: what if existing electricity infrastructure had not been present in nearby countryside areas – would these individuals have still passively accepted the power line proposal (or another form of proposed place change) or would they have protested against it?

Analysis of narrative and focus group interview data did not suggest that there were traditional or traditional-active individuals that had not experienced and were thereby unfamiliar with existing electricity infrastructure in the area around Nailsea. It is therefore difficult to speculate as to whether or not such individuals would or would not have passively accepted the proposed power line had electricity infrastructure not been a feature of the surrounding countryside. However, future research undertaken in a context where a proposed form of place change, such as a transmission power line proposal, had not pre-existed as a long-term landscape feature, could usefully attend to the above-mentioned research question.

Those that had moved to Nailsea as adults from similar semi-rural settlement types tended to represent the surrounding countryside as 'natural', 'scenic', and restorative in nature. These interview participants objectified and represented the proposed power line as an unacceptable and industrialising form of potential place change, thus fuelling project opposition. This finding supports existing research (McLachlan, 2009; Devine-Wright & Howes, 2010; Anderson, 2013) that shows how a lack of congruence between place and project representations can engender opposition to proposed or actual forms of place

change. This finding can also be seen to fit within wider literature on the cultural construction of idealised and romanticised notions of the English countryside, and this nostalgic vision of the countryside may resonate with participants' representing the nearby countryside as a 'natural' and picturesque locale. Such a view of the countryside would certainly be at odds with the increasingly industrialised and technological state of today's 'modern' countryside (Short, 2002) and transformation of rural landscapes into 'landscapes of power' (Pasqualetti et al., 2002), and it is thus understandable that some people may resist such forms of place change.

Those with life-place trajectories informing varieties of non-attachment to the current residence place tended not to evoke representations of the surrounding countryside or the proposed power line. It may be that weak or non-existent bonds to the residence place may render the surrounding countryside and the proposed power line as less important and less salient to these participants. Interestingly, these participants tended to oppose the power line proposal on project-based grounds (i.e. issues relating to procedural and distributive justice).

Life-Place Trajectories	Social representations of the countryside around Nalissea	Social representations of the HPC power line proposal	Stance towards the HPC power line proposal
Traditional attachment and long-term residence	Replete with existing electricity infrastructure	'Familiar' infrastructure (In place)	Project acceptance
Home Core traditional-active attachment	Inherently industrial/technological in nature	'Familiar'/'Industrial' infrastructure (In place)	Project acceptance
Active Attachment and continuity in settlement type	'Natural' Scenic Picturesque	Industrialising impact (Out of place)	Project opposition
Discontinuity in settlement type and place estrangement	Picturesque (Un-developed simple description)	None	Project opposition (on project-based grounds)
High residential mobility and placelessness	None		

Table 7.2: Life-place trajectories informing fit between place and project representations, and ensuring project stance

Across all three studies it was found that degree of congruence between social representations of the countryside around Nailsea and the HPC power line proposal was a salient factor in shaping responses to the project proposal. This finding was supported by the relative importance of the '*Symbolic fit of the PLP in surrounding countryside*' variable in the third empirical study, which was shown to emerge as a significant predictor of stance toward the power line project. More specifically, results from the hierarchical linear regression analysis showed that respondents who saw the proposed power line as blending into the surrounding countryside reported project acceptance. In contrast, disruption or enhancement of existing place bonds or varieties of people-place relations stemming from the HPC power line proposal was not evidenced. This lack of salience was further corroborated by the lack of predictive significance of any of the place varieties in explaining stance toward the project in study three.

Contrary to studies that propose locating opposition to energy infrastructure projects as arising from a perceived disruption to existing place attachments (Devine-Wright, 2009), findings across all three studies showed that degree of congruence between representations of the countryside around Nailsea and the HPC power line proposal was highly salient in informing responses toward the power line project. *This suggests that place as a 'locus of attachment' or non-attachment (i.e. varieties of people-place relations) did not emerge as important in shaping responses towards the power line proposal, whereas fit between divergent representations of the countryside and power line proposal (place as a 'centre of meaning') emerged as more salient in this regard* (Williams, 2014).

This thesis concludes that we should be cautious of presuming that siting electricity infrastructure (or other energy-related projects) in locations where this infrastructure already exists will garner project support. Novel findings from studies one and two suggest that congruence between countryside and project-based representations were shaped by people's life-place trajectories. *Future studies seeking to investigate congruence between place and project-based representations thus need to be sensitive to people's life-place trajectories* prior to forming conclusions on the basis of place/technology representations alone.

In order to manage conflict arising from electricity infrastructure development proposals, it is necessary that developers like National Grid be aware of and account for divergent representations of the English countryside when they seek to engage communities about new development proposals. *This research suggests that developers may benefit from incorporating divergent representations of the countryside to more effectively shape communication and intervention strategies with divergent stakeholder groups* (Brehm et al., 2013). For some (those having grown up in a particular locale with existing electricity infrastructure in the vicinity), this may involve stressing the familiarity of electricity infrastructure in countryside settings. For others (those having moved into a place as adults from more rural locales), developers like National Grid should seek to acknowledge 'natural' representations of the English countryside and consider adopting strategies that minimise the 'industrial' character of pylons.

Actions in this regard could comprise re-designing pylons to lessen their 'industrial' aesthetic, and undergrounding power lines in certain siting locations where such infrastructure might be seen as more impactful upon 'natural' countryside areas (e.g. National Parks and Areas of Outstanding Natural Beauty). How each type of resident - based on their residential biographies and/or ways of representing the countryside locally and nationally - could best be differentiated, and what practical measures would best be applied to each group, remains an open question and therefore worthy of further research.

Studies one and two demonstrated the process of objectification inherent in the process of symbolic coping in social representations theory, showing that particular ways of objectifying and representing the power line proposal through the use of metaphorical and symbolic meanings (i.e. evoking objectified representations of the proposal as 'familiar' or 'industrial'), were seen to arise based on existing social representations of the countryside. The process of symbolic coping, for those familiar with existing electricity infrastructure, led to the project being objectified as a 'familiar' form of place change. For those representing the nearby countryside as 'natural', the project was objectified as out of place in this locale. *Applying symbolic coping to the analysis of narrative and focus group interview data usefully highlighted the ways in which participants' objectified the power line proposal in view of divergent*

representations of the countryside, thus coping symbolically with this novel form of place change in distinctly different ways.

- The role of project-based factors in informing responses towards the HPC power line proposal:

Following an indication that some narrative interview participants (place non-attached individuals) tended to oppose the HPC power line proposal on project-based grounds (i.e. relating to perceived procedural injustice, distributive injustice, and lack of trust in the developer National Grid), this study sought to establish the role that these factors played in shaping stance towards the power line proposal. This was achieved, in a first instance, by employing focus group interviews which provided a deeper understanding as to the role of particular co-constructed project-based factors in influencing project responses, and attended to the relative lack of qualitative-based research in this area. In a second instance, hierarchical linear regression analysis then took forward certain project-based factors (along with a range of socio-demographic and place-based factors) in order to establish the predictive significance of procedural justice, positive impacts, trust in the local action group/local council, and the symbolic fit of the power line proposal in the surrounding countryside, in explaining stance towards the HPC power line proposal.

Analysis of focus group interview data showed that public consultation occurring too far 'downstream' in the local community consultation process, doubts over National Grid's use of local community feedback, and ineffective public consultation methods were seen to incite a sense of procedural injustice and subsequent project opposition. This corroborates existing research (Cotton & Devine-Wright, 2011a, 2011b, Knudsen, In Press) that has shown locally affected residents often do not feel that they have a meaningful or satisfactory level of involvement in decision-making around the siting of new power lines. Such findings have led to calls for moving community consultation further 'upstream' in order to endow locally-affected residents with greater decision-making capacity on (alternative) siting options, and for developers to go beyond mere information provision to engage in deliberative-type workshops when consulting local communities (Rowe & Frewer, 2005; Cotton & Devine-Wright, 2010, 2011a, 2011b, 2013a). Lack of trust in the developer National Grid was seen to arise from doubts over National Grid's use of local community

feedback and the view that the developer's public consultation process was a sham, reinforcing negative views of the HPC power line proposal.

Following National Grid's announcement of siting concessions following phase two of local community consultation in the spring of 2013 - i.e. undergrounding of part of the proposed power line running through the Mendip Hills area; and undergrounding 8km of an existing 132kV power line running from Nailsea to Portishead - some focus group participants felt that National Grid had suitably acted upon local community feedback, and that local residents were thus better able to inform decision-making regarding the siting of the proposed power line, ameliorating perceptions of procedural justice, trust in National Grid and acceptance of the project. This finding was supported by analysis of survey data which showed that procedural justice emerged as a significant predictor of stance towards the HPC power line proposal. A greater reported sense of procedural justice was seen to associate with greater project acceptance.

These findings point towards improved perceptions of procedural justice over the life course of the project, given the siting alterations put forward by National Grid in the spring of 2013. Devine-Wright's study (2013a), with data collection conducted approximately two to three years prior to the announcement of siting concessions, showed that perceived procedural injustice emerged as a significant predictor of opposition toward the HPC power line proposal. Novel findings from this PhD research, on the other hand, suggest that greater perceived fairness in the planning process following National Grid's siting concessions may be one factor fostering greater project acceptance towards the power line proposal over time. This therefore suggests that electricity infrastructure developers like National Grid - in attempts to ameliorate perceived procedural justice and developer trust - should be especially conscious of clearly communicating to locally-affected residents that any siting alterations made will have arisen from careful consideration of local community feedback, since this could improve perceived procedural justice and subsequent acceptance of future power line proposals. The act of communicating transparently to locally-affected residents that their feedback on the siting of a proposed power line was carefully considered and led to clear and timely siting alterations may foster greater project acceptance.

Analysis of focus group interviews in study two further showed that *opposition towards the HPC power line proposal arose from an apparent imbalance between high local costs and a relative absence of any local benefit to Nailsea and its inhabitants*. Perceived local costs of the proposed power line were seen to include: potential visual intrusion from larger pylons situated in the outlying countryside areas around Nailsea; concerns over reductions in local property prices; negative health concerns relating to exposure to electro-magnetic fields emanating from the new power line; potential disruption to local transport networks during the construction phase; and potential negative impacts on local tourism. Comparatively, the proposal was seen to proffer an absence of local benefits – with the exception of the potential creation of local construction jobs – and any likely positive impacts of the new power line were attributed to generalised notions of technological progress around ensuring consistent electricity supply for future generations. This imbalance was seen to result in perceived unfairness in the allocation of resources and impacts stemming from the power line proposal and thus a sense of distributive injustice. These findings support existing quantitative-based studies that have shown a perceived imbalance between project costs and benefits has been shown to lead to a sense of distributive injustice and opposition to infrastructure proposals (Lima, 2006; Mannarini et al., 2009) amongst local respondents.

However, following hierarchical linear regression analysis in empirical study chapter three, positive impacts (both local and non-local) emerged as a significant predictor of project acceptance. This corroborates research from Devine-Wright (2013a) that showed positive impacts were seen to predict stance toward the HPC power line proposal. Whilst the independent variable ‘negative impacts’ was omitted from the primary regression analysis, thus limiting the explanatory power of the regression model (and the extent to which conclusions can be made on the basis of study three regarding perceived distributive justice), findings from across empirical studies two and three suggest that *attempts by grid developers like National Grid to emphasise both local and non-local positive impacts stemming from a transmission power line project during community consultation may help in re-balancing perceived local costs of a project and thus ameliorate public acceptance*.

Whilst there have been recent calls for power line companies to make benefit packages available as a remedial measure to local communities bearing the costs of

power line projects (Renewable Grid Initiative, 2011) - and whilst some focus group interview participants felt that the imbalance between local costs and benefits could be remedied through cheaper electricity bills or through some form of financial remuneration - little is yet known as to the effects of benefit provision to locally affected communities on redressing this imbalance and improving public acceptance within the context of high-voltage power line proposals.

Although it has been assumed that deployment of renewable energy technologies would be better able to overcome public resistance if projects were implemented so as to provide local community benefits (Cass et al, 2010), the provision of community benefit packages is complicated by recent research that suggests benefit provision can be seen as a form of bribery with the effect of lowering project acceptance to energy infrastructure proposals (Walker et al., 2010; Walker et al., 2014; Tobiasson & Jamasb, In Press). For example, an experimental questionnaire survey study by Walker et al. (2014) found that support for a hypothetical future off-shore wind farm in Exmouth (UK) diminished in a 'dual-framing' condition, where community benefits were presented as both beneficial and as a form of bribery. The study concluded that communicating that community benefits offer a good deal to communities, rather than focusing on individual benefits, may be the best avenue to increasing support for energy infrastructure developments. *Future research could seek to explore people's views on preferences for different types of community benefit provision within the context of a high-voltage power line proposal.*

- *Going beyond the NIMBY concept;*

As previously established in the literature review chapter of this thesis, numerous academics have recognised the limited value of explaining local opposition to energy infrastructure development proposals according to the NIMBY (Not In My Back Yard) label. This concept typically portrays objectors as ignorant, irrational and self-interested individuals (Cotton & Devine-Wright, 2010, 2011; Burningham et al., 2006), and overlooks the multitude of underlying motivations or 'roots' of opposition as well as the wider range of types of public response toward energy development proposals (Ellis et al., 2007; Wolsink, 2000). This prompted Devine-Wright (2009) to propose a place-based approach to understanding responses to energy project proposals, where opposition is understood as a way of resisting forms of place

change that are seen to potentially disrupt existing place attachments and threaten place-based identities.

This PhD thesis has shown that a range of both place and project-based factors were seen to motivate a range of responses amongst Nailsea residents towards a high-voltage power line proposal in South-West England. In *a novel approach* to the study of people-place relations across the life-course of individuals, it was found that people's '*life-place trajectories*' - the dynamic nature of people's varieties of people-place relations across the life course of individuals - were seen to inform participants' social representations of the countryside around Nailsea which were in turn seen to shape participants' objectified representations of the power line proposal and ensuing stance towards the project. For instance, people that had grown up in and lived most of their lives in Nailsea were familiar with existing electricity infrastructure in the surrounding countryside and thus tended to objectify the proposed power line as an acceptable and 'familiar' form of place change. Those that had moved to Nailsea as adults from former semi-rural residence places tended to represent the countryside around Nailsea as 'natural' and thus objectify the proposed power line as an industrial edifice that would be out of place in a countryside locale.

Furthermore, perceptions around the fairness of the planning process and decision-making capacity (procedural justice), as well as the fair allocation of resources and impacts resulting from the proposed power line (distributive justice), were seen to inform both acceptance and opposition toward the project. The findings from this PhD thesis thus provide empirical support, within the context of a high-voltage power line proposal, that locally affected residents can hold a range of divergent responses based on motivations that go beyond NIMBY-type assumptions.

3. Limitations of PhD thesis and avenues for future research:

A number of limitations to this PhD research project have been identified and these open up avenues for the possibility of future research. These limitations fall under each of the two overarching research questions outlined in the introductory chapter.

- *Toward the temporal and dynamic study of people-place relations;*

(1) A key limitation of this research is that it did not explore in any great depth the role of nostalgia for past residence places in hindering or facilitating processes of

attachment or detachment (or the development or change in people's varieties of people-place relations) toward the current residence place. Lewicka (2104) proposes that nostalgic autobiographical memories may help to overcome spatial discontinuities and thus facilitate bonding to a new residence place. Whilst analysis of narrative interview data indicated that some participants may have experienced place estrangement or alienation upon moving to Nailsea due to deep-felt nostalgia for the former residence place – indicating that nostalgia for the past residence place may at first hinder the attachment process to one's new residence place – this finding was very tentative and did not feature as a main theme of analysis. This would however, warrant further research into investigating the role of the nostalgia sentiment to past residence places in informing and understanding processes of place attachment and detachment across residence places and over the life course of individuals. An in-depth narrative or life-history based interview study could fruitfully explore the role of nostalgia for past residence places in informing processes and dynamics of attachment or detachment (or the development of and transition between different varieties of people-place relations) to past and present residence places across the life course.

(2) Future research could focus on the changing nature of people's varieties of people-place relations and the processes underlying dynamics of attachment and detachment to place by focusing on a wider array of place scales. This PhD thesis focused solely upon people-place relations towards residence places over the life-course of individuals, thus discounting an investigation into the dynamic nature of people-place relations at different place scales such as regions, nations and even the global level, and potential interactions between these scales. Whilst Devine-Wright (2013b) highlights the need for research on place attachment at local and global scales (in order to better understand human responses to climate change), this research gap could also be extended to the study of varieties of people-place relations. Such an exploratory study could again seek to employ a narrative or life history-based interview method in order to explore the potential changing nature of people's varieties of people-place relations at different place scales over the life course of individuals and divergences or similarities between these place scales.

(3) In empirical study chapter three, factor loadings for the twenty varieties of people-place relations items, following principal components analysis, showed that for the

'placeless' factor solution, the four placeless items were seen to group with one place relative item ('I could equally well live here as in any other place'). This could indicate that the meanings between the placeless and this one place relative item were regarded by respondents as similar in meaning. Future studies could therefore attempt to use items to operationalise the placeless and place relative varieties that are more easily and clearly distinguishable. In addition, whilst this PhD research highlighted a novel composite variety of people-place relations ('Traditional-Active attachment') following thematic analysis of narrative interview data, this novel variety was not confirmed following principal components analysis in the third questionnaire survey study thus potentially weakening its validity. Future research into varieties of people-place relations could thus seek confirm the presence of this novel variety. This could potentially be achieved using a questionnaire survey method amongst a large-scale representative sample of UK residents, which employs factor analysis and/or cluster analysis to group variables or people according to their identification with varieties of place orientation. This could involve the inclusion of novel survey items that attempt to capture the 'traditional-active' variety.

- *Understanding public responses toward a high-voltage transmission power line proposal;*

(1) Whilst this PhD thesis sought to understand and explain the role of place (i.e. people's life-place trajectories) and project-based factors (i.e. procedural justice, distributive justice, trust in social actors) in shaping responses to the HPC power line proposal, this PhD research project did not explore participants' views and preferences on a range of different mitigation measures (e.g. benefit package provision). Such research may be highly relevant and informative to government policy-makers and to transmission grid developers with an interest in the application of remedial measures designed to ameliorate local public acceptance of transmission grid power line projects. Since there is a lack of research into local people's interpretations of and preferences for benefit package provision in contexts of proposed transmission power line developments, future research could seek to explore people's views on preferences for different types of benefit provision (i.e. Community funds, Benefits in kind, Local ownership, Local contracting), as well as how people interpret benefit provision (i.e. as a potentially good and fair step taken

by a grid developer like National Grid, or as a form of bribery) in the context of a transmission power line proposal.

(2) Given calls (Batel et al., 2013) for studies capturing and measuring attitudes or stance towards energy infrastructure development proposals to differentiate between 'acceptance' and 'support', and given recent empirical evidence (Aas, et al., 2014:33,34) showing a clear difference between the meanings implied in 'acceptance' of and 'support' of power line developments in the UK and Norway - 'support seems to imply a more active and favourable position towards power lines, whereas acceptance seems to be more related with a passive reception of those infrastructures, with people tolerating but not actually supporting them' - this thesis sought to capture different types of response toward the HPC power line proposal utilising a multi-item scale for measuring stance towards the project. Whilst principal components analysis of this scale led to a one-factor solution with statements aggregated to form a composite scale measure for the hierarchical linear regression analysis, there was some ambiguity when interpreting the results of the regression analysis regarding what constituted acceptance versus support, and full rejection versus opposition. In a sense, this removed some of the utility of a multi-item scale approach in this regard, since no clear link between a predictor variable and a specific stance toward the power line proposal could be clearly established, but rather had to be estimated based on the strength and valence of the standardised Beta values. Whilst this should not detract from seeking to account for different types of public response in future studies, this limitation should be taken into consideration for future studies seeking to use a multi-item scale of public response within the context of hierarchical regression analyses.

(3) Due to a principal interest in investigating the relative importance of place and project-based factors in explaining stance towards the HPC power line proposal, the PhD research overlooked the possibility of seeking to confirm relationships established between life-place trajectories, social representations of the countryside, social representations of the power line proposal, and stance towards the project in studies one and two. The combined findings of both qualitative studies found, for example, that those that had grown up in Nailsea tended to represent the surrounding countryside as replete with existing electricity infrastructure, objectifying the power line proposal as an acceptable and 'familiar' form of place change. Future

research could utilise cluster analysis to group people according to their life-place trajectories (named alternately as residential biographies). A series of one-way between groups' analyses of variance could then be conducted in order to compare mean scores for each group with representations of the countryside around Nailsea, representations of the HPC power line proposal, and stance towards the project.

(4) This PhD thesis, whilst adopting a social representations theory framework, has given a relatively a-political rendering of people's social representations of the HPC power line proposal and did not explore the ways in which these representations might sit within a context where other actors (i.e. the developer) competing social representations of place and of the power line proposal may come into play. In other words, this research did not position Nailsea residents' social representations into a context of wider and potentially competing representation of place and project, and thus, into a framework of power relations where certain societal actors may be more powerful in making their representations more dominant and in legitimising their representations over others. As Batel and Devine-Wright (2014:9) state: '...not all social representations are equally valued or have the same legitimacy in society...this adds a new layer to the analysis of social representations: power relations'. Whilst this goal did not appear as a central aim of this PhD research project, future research that explores social representations of place in contexts of novel or unfamiliar place change, could position their analysis of social representations within a wider framework of power relations, where competing social representations of place, by other social actors (i.e. electricity infrastructure developers), may be seen to challenge local resident representations of the place(s) they live.

References:

Aas, O., Devine-Wright, P., Tangeland, T., Batel, S., & Ruud, A. (In Press). Public beliefs about high-voltage powerlines in Norway, Sweden and the United Kingdom: A comparative survey. *Energy Research & Social Science*.

Agnew, J. (1987). *Place and Politics*. Boston, Allen: Allen & Unwin.

Albrecht, G., Sartore, G., Connor, L., & Higginbotham, N. (2007). Solastalgia: The distress caused by environmental change. *Australian Psychiatry: Bulletin of the Royal Australian and New Zealand College of Psychiatrists*, 15(1), 95-98.

Altman, I. & Low, S. (1992). Place Attachment: A Conceptual Inquiry. In: Altman, I. & Low, S. (1992) *Place Attachment*, 1-12. New York: Plenum Press.

Anderson, N. (2013). A case of contested rural meanings? The association between conflicting beliefs about plantation forestry and representations of the rural landscape in Tasmania. The University of Melbourne. Submitted PhD thesis.

Andreouli, E. & Howarth, C. (2013). National identity, citizenship and immigration: Putting identity in context. *Journal for the Theory of Social Behaviour* 43(3): 361–382.

Augoustinos, M., & Walker, I. (1995). *Social cognition: An integrated introduction*. London: Sage.

Batel, S. & Castro, P. (In Press). Collective Action and Social Change: Examining the Role of Representation in the Communication between Protestors and Third-party Members. *Journal of Community & Applied Social Psychology*.

Batel, S., Devine-Wright, P. & Tangeland, T. (2013). Social acceptance of low carbon energy and associated infrastructures: A critical discussion. *Energy Policy*, 58, 1-5.

Batel, S. & Devine-Wright, P. (2014). Towards a better understanding of people's responses to renewable energy technologies: Insights from Social Representations Theory. *Public Understanding of Science*, 1-15.

Bauer, M. & Gaskell, G. (2000). *Qualitative Researching with Text, Image and Sound: A Practical Handbook*. London Sage.

Berger, P. & Luckmann, T. (1967). *The Social Construction of Reality*. Harmondsworth: Penguin.

Billig, M. (in press) Studying the Thinking Society: social representations, rhetoric and attitudes. In: G.M. Breakwell and D.V. Canter (Eds.) *Empirical Approaches to Social Representations*. Oxford: Oxford University Press.

Bircham Dyson Bell (2011). Overview of the Planning Act 2008. Available online: <http://www.bdb-law.co.uk/blog/143-overview-planning-act-2008-summary-date-24-june-2010>

BBC News (14th October 2011). 'Pylon design competition winner revealed'. Available online: <http://www.bbc.co.uk/news/uk-15293918>

Bolinger, M., Wiser, R., Wind, T., Juhl, D. & Grace, R. (2004) A Comparative Analysis of Community Wind Power Development Options in Oregon. Available online: <http://www.oregon.gov/ENERGY/RENEW/Wind/docs/CommunityWindReportLBLforETO.pdf>

Bonaiuto, M., Breakwell, G. & Cano, I. (1996). Identity Processes and Environmental Threat: the Effects of Nationalism and Local Identity upon Perception of Beach Pollution. *Journal of Community and Applied Social Psychology*, 6, 157-175.

Breakwell, G. (1986). *Coping with Threatened Identities*, Methuen London and New York.

Brehm, J., Eisenhauer, B., & Stedman, R. (2013). Environmental concern: Examining the role of place meaning and place attachment. *Society & Natural Resources*, 26(5), 522-538.

Briggs, S. & Cheek, J. (1986). The role of factor analysis in the development and evaluation of personality scales. *Journal of Personality*, 54(1), 106-148.

Bristow, G., Cowell, R., & Munday, M. (2012). Windfalls for whom? The evolving notion of 'community' in community benefit provisions from wind farms. *Geoforum*, 43(6), 1108-1120.

Brown, B. & Perkins, D. (1992). Disruptions to place attachment. In: Altman, I. & Low, S. (1992) *Place Attachment*, 279-304. New York: Plenum Press.

Brown, B., Perkins, D. & Brown, G. (2003). Place attachment in a revitalizing neighbourhood: Individual and block levels of analysis. *Journal of Environmental Psychology*, 23, 259-271.

Brown, G. (2005). Mapping spatial attributes in survey research for natural resource management: Methods and applications. *Society and Natural Resources*, 18, 17-39.

Brown, G. & Raymond, C. (2007). The relationship between place attachment and landscape values: Toward mapping place attachment. *Applied Geography*, 27, 89-111.

Bryman, A. (2008). *Social Research Methods*. Third Edition. Oxford University Press.

Burningham, K. et al. (2006). The limitations of the NIMBY concept for understanding public engagement with renewable energy technologies: a literature review. Working Paper 1.3. Available online: http://geography.exeter.ac.uk/beyond_nimbyism/deliverables/bn_wp1_3.pdf

Calder, B. (1977). Focus Groups and the Nature of Qualitative Marketing Research, *Journal of Marketing Research*, 14, 353-64.

Cass, N., Walker, G. & Devine-Wright, P. (2010). Good neighbours, public relations and bribes: politics and perceptions of community benefit provision in renewable energy development in the UK. *Journal of Environmental Psychology*, 12(3), 255–75.

Castree, N. (2009). Place: Connections and Boundaries in an Interdependent World. In: Clifford, N., Holloway, S., Rice, S. & Valentine, G. (2009). *Key Concepts in Geography*, 2nd Edition, SAGE Publications, 153-172.

Castro, P. & Batel, S. (2008). Social Representation, Change and Resistance: On the Difficulties of Generalizing New Norms. *Culture and Psychology*, 14:4, 475-497.

- Chawla, L. (1992). Childhood Place Attachments. In: Altman, I. & Low, S. (1992) *Place Attachment*, 63-86. New York: Plenum Press.
- Chow, K. & Healey, M. (2008). Place attachment and place identity: First-year undergraduates making the transition from home to university. *Journal of Environmental Psychology*. 28(4), 362-372.
- Clandinin, J. & Connelly, M. (2000). *Narrative Inquiry: experience and story in qualitative research*. San Francisco: Jossey-Bass Publishers.
- Clandinin, J. & Connelly, M. (2007). *Handbook of narrative inquiry: mapping a methodology*. Sage Publications.
- Corbin, J. & Strauss, A. (2008). *Basics of Qualitative Research*. Third Edition, SAGE publications.
- Cotton, M. & Devine-Wright, P. (2010). Making electricity networks “visible”: Industry actor representations of “publics” and public engagement in infrastructure planning. *Public Understanding of Science*, 1, 1-19.
- Cotton, M. & Devine-Wright, P. (2011a). NIMBYism and Community Consultation in Electricity Transmission Network Planning. In: Devine-Wright, P. (2011). *Renewable Energy and the Public: From NIMBY to Participation*, 115-130, Earthscan.
- Cotton, M. & Devine-Wright, P. (2011b). Discourses of energy infrastructure development: a Q-method study of electricity transmission line siting in the UK. *Environment and Planning A*, 43, 942-960.
- Cotton, M., & Devine-Wright, P. (2013). Putting pylons into place: a UK case study of public perspectives on the impacts of high voltage overhead transmission lines. *Journal of Environmental Planning and Management*, 56(8), 1225-1245
- Cowell, R., Bristow, G., Munday, M. (2011). Acceptance, acceptability and environmental justice: the role of community benefits in wind energy development. *Journal of Environmental Planning and Management*, 54(4), 539-557.
- Cresswell, T. (2004). *Place: a short introduction*, Blackwell.

Creswell, J. (2007). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*. Sage Publications.

Dear, M. (1992). 'Understanding and Overcoming the NIMBY Syndrome'. *Journal of the American Planning Association*, 58, 288-300.

Department of Energy and Climate Change (DECC) - UK Low Carbon Transition Plan (2009). Available online:
http://webarchive.nationalarchives.gov.uk/20100509134746/http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx

Department of Energy and Climate Change (DECC) - National Infrastructure Plan (2011). Available online: <https://www.gov.uk/government/publications/national-infrastructure-plan-november-2011>

Department of Energy and Climate Change (DECC) (2011). Available online:
<http://www.decc.gov.uk/>

DECC (2012a). 'Pylon design competition launched'. Available online:
http://www.decc.gov.uk/en/content/cms/news/pn_pylons/pn_pylons.aspx

Department of Energy and Climate Change (DECC) - Power Lines: Demonstrating compliance with EMF public exposure guidelines. A voluntary code of practice (2012b). Available online:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf

Department of Energy and Climate Change (DECC) - Reducing the UK's greenhouse gas emissions by 80% by 2050 (2013a). Available online:
<https://www.gov.uk/government/policies/reducing-the-uk-s-greenhouse-gas-emissions-by-80-by-2050>

Department of Energy and Climate Change (DECC) - Carbon Budgets (2013b). Available online: <https://www.gov.uk/government/policies/reducing-the-uk-s-greenhouse-gas-emissions-by-80-by-2050/supporting-pages/carbon-budgets>

Department of Energy and Climate Change (DECC) - The Carbon Plan - reducing greenhouse gas emissions (2013c). Available online:

<https://www.gov.uk/government/publications/the-carbon-plan-reducing-greenhouse-gas-emissions--2>

Department of Energy and Climate Change (DECC) – Electricity network delivery and access (2013d). Available online: <https://www.gov.uk/electricity-network-delivery-and-access>

Department of Energy and Climate Change (DECC) – Fracking UK shale: regulation and monitoring (2014a). Available online: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/283834/Regulation_v3.pdf

Department of Energy and Climate Change (DECC) - 2013 UK Greenhouse Gas Emissions, Provisional Figures and 2012 UK Greenhouse Gas Emissions, Final Figures by Fuel Type and End - User (2014b). Available online: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/295968/20140327_2013_UK_Greenhouse_Gas_Emissions_Provisional_Figures.pdf

DeVellis, R. (2012). *Scale Development: Theory and Application*. Third Edition. Sage Publications.

Devine-Wright, H. (1998). Conformation and Individuation in Social Representation: The Case of the UK National Lottery. Unpublished PhD Thesis, University of Surrey, Guildford.

Devine-Wright, P. (2005). Beyond NIMBYism: towards an Integrated Framework for Understanding Public Perceptions of Wind Energy. *Wind Energy*, 8, 125-139.

Devine-Wright, P. (2009). Rethinking NIMBYism: The Role of Place Attachment and Place Identity in Explaining Place-protective Action. *Journal of Community & Applied Social Psychology*, 19, 426-441.

Devine-Wright, H. & Devine-Wright, P. (2009). Social representations of electricity network technologies: Exploring processes of anchoring and objectification through the use of visual research methods. *British Journal of Social Psychology*, 48(2), 357-373.

Devine-Wright, P., Devine-Wright, H. & Sherry-Brennan, F. (2010). Visible technologies, invisible organisations: An empirical study of public beliefs about electricity supply networks. *Energy Policy*, 38, 4127-4134.

Devine-Wright, P. & Howes, Y. (2010). Disruption to place attachment and the protection of restorative environments: a wind energy case study. *Journal of Environmental Psychology*, 30, 271-280.

Devine-Wright, P. (2011a). Place attachment and public acceptance of renewable energy: A tidal energy case study. *Journal of Environmental Psychology*, 31, 336-343.

Devine-Wright, P. (2011b). Enhancing local distinctiveness fosters public acceptance of tidal energy: A UK case study. *Energy Policy*, 39, 83-93.

Devine-Wright, P. (2011c). Public engagement with large-scale renewable energy: breaking the NIMBY cycle. *Wiley Interdisciplinary Reviews: Climate Change*, 2, 19-26.

Devine-Wright, P. (2013a). Explaining 'NIMBY' objections to a power line: The role of personal, place attachment and project-related factors. *Environment and Behavior*, 31, 640-649.

Devine-Wright, P. (2013b). Think global, act local? The relevance of place attachments and place identities in a climate changed world. *Global Environmental Change*, 23, 61-69.

Devine-Wright, P. & Batel, S. (2013). Explaining public preferences for high voltage power lines: an empirical study of perceived fit in a rural landscape. *Land Use Policy*, 31, 640-649.

Devine-Wright, P. (2014). Dynamics of Place Attachment in a Climate Changed World. In: Manzo, L. & Devine-Wright, P. (2014). *Place Attachment: Advances in Theory, Methods and Applications*. London Routledge.

Di Masso, A., Dixon, J. & Durrheim, K. (2014) Place Attachment as Discursive Practice. In : Manzo, C. & Devine-Wright, P. (2014) *Place Attachment : Advances in Theory, Methods and Applications*, Routledge, pp. 75-86.

Dixon, J. & Durrheim, K. (2000). Displacing place-identity : A discursive approach to locating self and other. *British Journal of Social Psychology*, 39, 27-44.

Dixon, J. & Isaacs, B. (2013). There's certainly a lot of hurting out there: navigating the trolley of progress down the supermarket aisle. *Agric Hum Values*, 30, 283-297.

Dovey, K. (1985). *Home and homelessness*. In: Altman, I. & Werner, C.M. (Eds), *Home Environments*, Plenum Press, New York, pp. 33-64.

Drenthen, M. (2010). NIMBY and the Ethics of the Particular. *Ethics, Policy & Environment*, 13(3), 321-323.

Duncan, J. & Duncan, N. (2001). Sense of Place as a Positional Good: Locating Bedford in Place and Time. In: P. Adams, S. Hoelscher and K. Till (eds) *Textures of Place: Exploring Humanist Geographies*. Minneapolis: University of Minnesota Press, 41–54.

Dupuis, A. & Thorns, D. (1996). Meanings of home for older home owners. *Housing Studies*, 11, 4, 485-501.

Easthope, H. (2004). A Place Called Home. *Housing, Theory and Society*, 21, 128-138.

Easthope, H. (2009). Fixed identities in a mobile world? The relationship between mobility, place, and identity. *Identities: Global Studies in Culture and Power*, 16(1), 61-82.

Elliott, J. (2005). *Using narrative in social research*. London: Sage.

Ellis, G., Barry, J. & Robinson, C. (2007). 'Many ways to say 'no', different ways to say 'yes': Applying Q-Methodology to understand public acceptance of wind farm proposals', *Journal of Environmental Planning and Management*, 50, 517-551.

Electricity Act 1989, DECC (2011). Available online:
<http://www.legislation.gov.uk/ukpga/1989/29/contents>

Energy Networks Association (ENA) (2014). Available online:
<http://www.energynetworks.org/>

Energy Infrastructure Portal, DECC (2011). Available online: <https://www.og.decc.gov.uk/EIP/pages/ohl.htm>

EN-5 Electricity Networks Infrastructure NPS, DECC (2011). Available online: <http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/consents-planning/nps2011/1942-national-policy-statement-electricity-networks.pdf>

Electricity Networks Strategy Group (ENSG) Report (2011). 'Our Electricity Transmission Network: A Vision for 2020. Available online: <http://webarchive.nationalarchives.gov.uk/20100919181607/http://www.ensg.gov.uk/index.php?article=126>

Farr, R. (1993). Common sense, science and social representations. *Public understanding of Science*, 2, 189-205.

Feldman, R. (1990). Settlement Identity: Psychological Bonds with Home Places in a Mobile Society. *Environment & Behavior*, 22(2), 183-229.

Field, A. (2009). *Discovering Statistics using SPSS*, third Edition. Sage Publications.

Fink, A. (2003). *How to Design Survey Studies*. The Survey Kit, 2nd Edition. Sage Publications.

Flick, U. (1994). Social representations and the social construction of everyday knowledge: theoretical and methodological queries. *Social Science Information*, 33(2), 179-197.

Fraser, C. (1994). Attitudes, social representations and widespread beliefs. *Papers on Social Representations*, 3, 1-13.

Freudenberg, W. & Pastor, S. (1992). 'NIMBYs and LULUs: Stalking the Syndromes', *Journal of Social Issues*, 48, 4, 39-61.

Fried, M. (2000). Continuities and Discontinuities of Place. *Journal of Environmental Psychology*, 20, 193-205.

Frouws, J. (1998). The contested redefinition of the countryside. Analysis of rural discourses in The Netherlands. *Sociologica ruralis*, 38(1), 54-68.

Fullilove, M. (2014). "The Frayed Knot": What Happens to Place Attachment in the Context of Serial Forced Displacement? In: Manzo, L. & Devine-Wright, P. (2014). *Place Attachment: Advances in Theory, Methods and Applications*. London: Routledge.

Gerson, K., & Horowitz, R. (2002). Observation and Interviewing: Options and Choices. In: May, T. (Eds), *Qualitative Research in Action*, London: Sage.

Greene, D., Tehranifar, P., Hernandez-Cordero, L. & Fullilove, M. (2011). I used to cry every day: A model of the family process of managing displacement. *Journal of Urban Health*, 88(3), 403-416.

Gieryn, T. (2000). A Space for Place in Sociology. *Annual Review of Sociology*, 26, 463-496.

Gillham, B. (2001). *Developing a Questionnaire*. Continuum Publications.

Giuliani, M. (2003). Theory of Attachment and Place Attachment. In: Bonnes, M. et al. (2003) *Psychological Theories for Environmental Issues*, Ashgate, 137-170.

Guidance on pre-application consultation (September 2009) Department for Communities and Local Government. Available online:

<http://infrastructure.independent.gov.uk/wp-content/uploads/2009/08/guidancepreapplication.pdf>

Gustafson, P. (2001). Roots and Routes: Exploring the Relationship between Place Attachment and Mobility. *Environment & Behavior*, 33(5), 667-686.

Halfacree, K. (1995). Talking about rurality: Social Representations of the rural as expressed by residents of six English parishes. *Journal of Rural Studies*, 11(1), 1-20.

Harvey, D. (1996). *Justice, Nature and the Geography of Difference*. Blackwell Publishers, Cambridge, MA.

Hay, R. (1998). Sense of Place in Developmental Context. *Journal of Environmental Psychology*, 18, 5-29.

Henwood, K. & Nicolson, P. (1995). Qualitative research. *The Psychologist*, 8 (3): 109-110.

Hernandez, B., Hidalgo, M. & Ruiz, C. (2014). Theoretical and Methodological Aspects of Research on Place Attachment. In: Manzo, L. & Devine-Wright, P. (2014). *Place Attachment: Advances in Theory, Methods and Applications*. London: Routledge.

HM Government (2009). *The UK renewable energy strategy*. London: Her Majesty's Stationary Office.

Hughes, J. (1980). *Aspects of Modern Sociology – The Philosophy of Social Research*. Longman London and New York.

Hugh-Jones, S. & Madill, A. (2009). 'The air's got to be far cleaner here': A discursive analysis of place-identity threat. *The British Psychological Society*, 48, 601-624.

Huijts, N., Molin, E., and Steg, L. (2012). Psychological factors influencing sustainable energy technology acceptance: A review-based comprehensive framework. *Renewable and Sustainable Energy Reviews* 16: 525–531.

Hufford (1992) Thresholds to an Alternate Realm: Mapping the Chaseworld in New Jersey's Pine Barrens. In: Altman, I. & Low, S. (1992) *Place Attachment*, pp231-252. New York: Plenum Press.

Hummon, D. (1992). Community Attachment, Local Sentiment and Sense of Place. In: Altman, I. & Low, S. (1992) *Place Attachment*, pp253-278. New York: Plenum Press.

Hunter, S. & Leyden, K. (1995). 'Beyond NIMBY: Explaining opposition to hazardous waste facilities' *Policy Studies Journal*, 23, 4, 601-619.

ICNIRP (1998). 'ICNIRP guidelines for limiting exposure to time-varying electric, magnetic and electro-magnetic fields (up to 300GHz)'. Available online: <http://www.icnirp.de/documents/emfgdl.pdf>

Inhalan, G. & Finch, E. (2004). Place attachment and sense of belonging. *Facilities*, 22, 120-128.

Infrastructure Planning Commission (IPC) (2011). Available online: <http://infrastructure.independent.gov.uk/>

IPC Guidance note on pre-application stages (29th March, 2010). IPC. Available online: <http://infrastructure.independent.gov.uk/wp-content/uploads/2010/04/IPC-pre-app-guidance-note-1.pdf>

Jay, S. (2005). The forces shaping local planning policy on high voltage electricity Installations. *The Journal of Environmental Policy and Planning*, 6, 207-226.

Jay, S. (2007). Pylons in the back yard: local planning and perceived risks to health. *Environment and Planning C*, 25 (3), 423-438.

Jovchelovitch, S. (1995). Social Representations in and of the public sphere: towards a theoretical articulation. *Journal for the Theory of Social Behaviour*, 25, 81-102.

Jovchelovitch, S. & Bauer, M. (2000). Narrative Interviewing. In: Bauer, M. & Gaskell, G. (2000). *Qualitative Researching with Text, Image and Sound: A Practical Handbook*. London Sage, pp. 57-74.

Kempton, W., Firestone, J., Lilley, J., Rouleau, T. & Whitaker, P. (2005). The offshore wind power debate: views from Cape Cod. *Coast Manage*, 22, 119-149.

Kim, M. (2013). North Korean Refugees' Nostalgia: The Border People's Narratives. *Asian Politics & Policy*, 5(4), 523-542.

Klandermans, B. (1997). *The social psychology of protest*. Oxford: Blackwell.

Knudsen, J., Wold, L., Batel, S., Aas, O., Devine-Wright, P., Haug, J., Jacobsen, G., & Qvenild, M. (In Press). Local perceptions of opportunities for engagement and procedural justice in electricity transmission grid projects in Norway and the UK. *SusGrid Project*.

Korpela, K. M. (1989). Place-identity as a product of environment self-regulation. *Journal of Environmental Psychology*, 9, 241-256.

Korpela et al. (2009). Stability of self-reported favourite places and place attachment over a 10-month period. *Journal of Environmental Psychology*, 29, 95-100.

Lagerkvist, A. (2013). Communicating the rhythms of retromodernity: 'confused and mixed Shanghai'. *The Sociological Review*, 61, 144-161.

- Lauri, M. (2009). Metaphors of organ donation, social representations of the body and the opt-out system. *British Journal of Health Psychology*, 14, 647-666.
- Laszlo, J. (1997). Narrative organisation of social representations. *Papers on Social Representations*, 6, 155-172.
- Lewicka, M. (2011a). How far have we come in the last 40 years? *Journal of Environmental Psychology*, 31, 207-230.
- Lewicka, M. (2011b) On the varieties of people's relationships with places: Hummon's typology revisited. *Environment and Behavior*, in press.
- Lewicka, M. (2014). In Search of Roots: Memory as Enabler of Place Attachment. In: Manzo, L. & Devine-Wright, P. (2014). *Place Attachment: Advances in Theory, Methods and Applications*, Routledge, pp. 49-60.
- Lima, M. & Castro, P. (2005). Cultural theory meets the community: Worldviews and local issues. *Journal of Environmental Psychology*, 25, 23-35.
- Lima, M. (2006). Predictors of Attitudes towards the Construction of a Waste Incinerator: Two Case Studies. *Journal of Applied Social Psychology*, 36, 441-466.
- Liu, L. (2004). Sensitising Concept, Themata and Shareness: A Dialogical Perspective of Social Representations. *Journal for the Theory of Social Behaviour*, 34:3, 249-264.
- Low, S. (1992). Symbolic Ties That Bind. In: Altman, I. & Low, S. (1992) *Place Attachment*, 165-185, New York: Plenum Press.
- Mannarini, T., Roccato, M., Fedi, A., Rovere, A. (2009). Six factors fostering protest: Predicting participation in locally unwanted land use movements. *Political Psychology*, 30, 6, 895-917.
- Manzo, L. (2003). Beyond house and haven: toward a revisioning of emotional relationships with places. *Journal of Environmental Psychology*, 23, 47-61.
- Manzo, L. (2005). For better or worse: Exploring multiple dimensions of place meaning. *Journal of Environmental Psychology*, 25, 67-86.

- Manzo, L. & Perkins, D. (2006). Finding common ground: The importance of place attachment to community participation and planning. *Journal of Planning Literature*, 20:4, 335-350.
- Massey, D. (1995). *The Conceptualization of place*. Open University Press.
- Massey, D. & Jess, P. (1995). *A Place in the World? Places, Cultures, and Globalization*. Open University.
- Massey, D. (1997) A Global Sense of Place. In: Barnes, T. & Gregory, D. eds. *Reading Human Geography*, Arnold, London, 315-323.
- Massey, D. (2005). *For Space*. London Sage.
- McLachlan, C. (2009). You don't do a chemistry experiment in your best china: Symbolic interpretations of place and technology in a wave energy case. *Energy Policy*, 37(12), 5342-5350.
- Midden, C. & Huijts, N. (2009). The role of Trust in the Affective Evaluation of Novel Risks: The Case of CO2 Storage. *Risk Analysis*, 29(5), 743-751.
- Moloney, G. & Walker, I. (2007). *Social Representations and Identity: Content, Process, and Power*. Palgrave MacMillan.
- Morgan, D. (1998). *Planning Focus Groups*. California: Sage.
- Moscovici, S. (1981). On social representations. In: Forgas, J. (Ed.), *Social cognition*, pp. 181-209. London. Academic Press.
- Moscovici, S. (1984). The phenomenon of social representations. In: Farr, R. & Moscovici, S. (Eds.), *Social representations*, pp. 3-69. Cambridge: Cambridge University Press.
- Moscovici, S. (2001) *Social Representations: Explorations in Social Psychology*. New York University Press.
- Murphy, J. (2011a). Walking a public geography through Ireland and Scotland. *The Geographical Journal*, 4, 367-379.

Murphy, J. (2011b). Walking paths through postcolonial political geographies. *Political Geography*, 30, 239-240.

Murphy, J. (2011c). From place to exile. *Transactions of the Institute of British Geographers*, 36, 4, 473-478.

National Grid (2009). Project Leaflet. Available Online:

[http://nationalgrid.opendebate.co.uk/files/1-Hinkley leaflet - FINAL 6 Oct 09.pdf](http://nationalgrid.opendebate.co.uk/files/1-Hinkley%20leaflet%20-%20FINAL%206%20Oct%2009.pdf)

National Grid (2010). 'National Grid's Commitments when undertaking works in the UK – Our stakeholder, community and amenity policy'. Available online: [http://www.nationalgrid.com/NR/rdonlyres/21448661-909B-428D-86F0-2C4B9554C30E/39991/SCADocument6 2 Final 24 2 18.pdf](http://www.nationalgrid.com/NR/rdonlyres/21448661-909B-428D-86F0-2C4B9554C30E/39991/SCADocument6%20Final%2024%202%2018.pdf)

National Grid (2010). National Grid's preferred route corridor option map. Available online: <http://www.nationalgrid.com/NR/rdonlyres/0C90A25B-8CF8-466F-BFD9-AB834F36199C/49289/PreferredRouteCorridor.pdf>

National Grid (September 2011). Preferred Connection Option. Available online: <http://nationalgrid.opendebate.co.uk/files/1-1-PreferredConnectionOptionAnOverview.pdf>

National Grid (2011b). Holford Rules. Available online: <http://www.nationalgrid.com/NR/rdonlyres/E9E1520A-EB09-4AD7-840B-A114A84677E7/41421/HolfordRules1.pdf>

National Grid (October 2012). Stage 3 Consultation Strategy Update. Available online: [http://nationalgrid.opendebate.co.uk/files/1-1-HCCPConsultationStrategyFINAL090512 Update 231012 FINAL DO.pdf](http://nationalgrid.opendebate.co.uk/files/1-1-HCCPConsultationStrategyFINAL090512%20Update%20231012%20FINAL%20DO.pdf)

National Grid (2013). Available online: <http://www.nationalgrid.com/uk/Electricity/>

National Grid (2013). Project News. Available online: <http://nationalgrid.opendebate.co.uk/files/1-Spring%20Project%20News%202013%20-%20DIGITAL%20EDITION.pdf>

National Grid (August 2013). Stage 4 Consultation Strategy. Available online: [http://nationalgrid.opendebate.co.uk/files/1-1-Stage 4 Consultation Strategy.pdf](http://nationalgrid.opendebate.co.uk/files/1-1-Stage%204%20Consultation%20Strategy.pdf)

National Grid (2014a). Available online: <http://www2.nationalgrid.com/uk/>

National Grid (2014). Development near overhead lines. Available online: <http://www2.nationalgrid.com/uk/services/land-and-development/planning-authority/development-near-ohl/>

National Grid (2014). Timeline of the Hinckley Point C Project. Available online: http://www.hinkleyconnection.co.uk/assets/images/timeline_big.jpg

National Grid (2014). Hinckley Point C connection. Available online: <http://www.hinkleyconnection.co.uk/>

National Grid (May 2014). Interconnectors. Available online: http://investors.nationalgrid.com/~/_media/Files/N/National-Grid-IR/factsheets/2014/interconnector.pdf

National Infrastructure Planning (2012). Available online: <http://infrastructure.planningportal.gov.uk/>

NETS Seven Year Statement (2011). Executive Summary. Available online: <http://www.nationalgrid.com/NR/rdonlyres/3E5D4C9A-C239-49E1-8862-54C2A41677BA/47018/NETSSYS2011ExecutiveSummary.pdf>

Ofgem (2007). Available online: <http://www.ofgem.gov.uk/About%20us/Pages/AboutUsPage.aspx>

O'Sullivan, L. (2006). The Time and Place of Nostalgia: Re-situating a French Disease. *Journal of the History of Medicine and Allied Sciences*, 67(4), 626-649.

Pallant, J. (2013). *SPSS survival manual: a step by step guide to data analysis using IBM SPSS*. Open University Press.

Pasqualetti, M., Gipe, P., & Richter, R. (2002). A landscape of power. In: Pasqualetti et al., (2002). *Wind Power in View: Energy Landscapes in a Crowded World*, 3-16, Academic Press.

Patterson, M. & Williams, D. (2005). Maintaining research traditions on place: Diversity of thought and scientific progress. *Journal of Environmental Psychology*, 25, 361-380.

Petrova, M. (2013). NIMBYism revisited: public acceptance of wind energy in the United States. *WIREs Climate Change*, 4, 575-601.

Pijawaka, D. & Mushkatel, A. (1991). Public Opposition To The Siting Of The High-Level Nuclear Waste Repository: The Importance Of Trust. *Policy Studies Review*, 10(4), 180-194.

Planning Act 2008. Available online:

<http://www.legislation.gov.uk/ukpga/2008/29/contents>

Possick, C. (2004). Locating and relocating oneself as a Jewish Settler on the West Bank: Ideological squatting and eviction. *Journal of Environmental Psychology*, 24, 53-69.

Potter, J. (1996). *Representing Reality: Discourse, Rhetoric and Social Construction*. SAGE Publications, London.

Priestley, T. & Evans, G.W. (1996). Resident Perceptions of a Nearby Electric Transmission Line. *Journal of Environmental Psychology*, 16, 65-74.

Proshansky, H. (1978). The City and Self-Identity. *Environment and Behavior*, 10, 147-169.

Proshansky, H. (1983) Place Identity: Physical World Socialization of the Self. *Journal of Environmental Psychology*, 3, 57-83.

Proshansky, H., Fabian, A., & Kaminoff, R. (1983). Place identity: Physical world socialization of the self. *Journal of Environmental Psychology*, 3(1), 57-83.

Relph, E. (1976). *Place and Placelessness*, Pion Limited.

Renewables Energy Directive (2009). Available online: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF>

RenewableUK - UK Wind Energy Database (UKWED) (2014). Available online: <http://www.renewableuk.com/en/renewable-energy/wind-energy/uk-wind-energy-database/uk-wind-energy-database-ukwed.cfm>

Renewables Grid Initiative brochure (2011). 'The SuperSmart Grid and Europe's Electricity Story', Futerra sustainability communications. Information available online: <http://www.renewables-grid.eu/>

Riessman, C. (1993). *Narrative Analysis*. London Sage.

Riessman, C. (2008). *Narrative Methods for the Human Sciences*. Sage Publications.

Royal Institute of British Architects (RIBA) (2011). Pylon Design Competition. Available online: <http://www.ribapylondesign.com/competition>

Rose, G. (1995). Place and Identity: A Sense of Place. In: Massey, D. & Jess, P. (1995). *A Place in the World? Places, Cultures, and Globalization*, 88-132. Open University.

Rowe, G. & Frewer, L. (2005). A Typology of Public Engagement Mechanisms. *Science, Technology, & Human Values*, 30(2), 251-290.

Rowles, G.D. (1983). Place and personal identity in old age: Observations from Appalachia. *Journal of Environmental Psychology*, 3, 299-313.

Royal Town Planning Institute (RTPI) (2008). Available online: <http://www.rtpi.org.uk/cgi-bin/item.cgi?id=1423>

RWE npower (2011). Available online: <http://www.rwe.com/web/cms/en/286400/rwe-npower/about-us/our-history/history-of-electricity-industry/>

Rodaway, P. (2004). Yi-Fu Tuan. In: Hubbard, P. et al. (2004) *Key thinkers on Space and Place*, Sage.

SAGE (2007). First Interim Report: Power Lines and Property, Wiring in Homes, and Electrical Equipment in Homes. Available online: <http://www.sagedialogue.org.uk/pdfs/sage-one-ia.pdf>

Savage, M., Bagnall, G., & Longhurst, B. (2005). *Globalization and belonging*. London: Sage.

Savage, M. (2010). The Politics of Elective Belonging. *Housing, Theory and Society*, 27(2), 115-161.

Save Our Valley (2009). Available online: <http://www.save-our-valley.co.uk/index.html>

Scannell, L. & Gifford, R. (2010). Defining place attachment: A tripartite organising framework. *Journal of Environmental Psychology*, 30, 1-10.

Scannell, L. & Gifford, R. (2011). Personally Relevant Climate Change: The Role of Place Attachment and Local versus Global Message Framing in Engagement. *Environment and Behavior*, 45(1), 1-26.

Seamon, D. (1982). The phenomenological contribution to environmental psychology. *Journal of Environmental Psychology*, 2, 119-140.

Selby, A., Koskela, T., & Petajisto, L. (2007). Evidence of lay and professional forest-based development discourses in three contrasting regions of Finland. *Forest Policy and Economics*, 9(6), 633-646.

Short, L. (2002). Wind Power and English Landscape Identity. In: Pasqualetti et al., (2002). *Wind Power in View: Energy Landscapes in a Crowded World*, 43-57, Academic Press.

Shove, E. (2010). Beyond the ABC: climate change policy and theories of social change. *Environment and Planning*, 42, 1273-1285.

Stagl, S. (2006). Multicriteria evaluation and public participation: the case of UK energy policy. *Land Use Policy*, 23(1), 53-62.

Soini, K. et al. (2011). Local residents' perceptions of energy landscape: the case of transmission lines. *Land Use Policy*, 28, 294-305.

Speller, G. (2000). 'A Community in Transition: A longitudinal study of place attachment and identity processes in the context of an enforced relocation'. Unpublished PhD thesis, University of Surrey, Guildford.

Speller, G. & Twigger-Ross, C. (2009). Cultural and Social disconnection in the context of a changed physical environment. *Geografiska Annaler: Series B Human Geography*, 91 (4), 355-369.

Stedman, R. (2002). Toward a Social Psychology of Place: Predicting Behavior from Place-based Cognitions, Attitude and Identity. *Environment and Behavior*, 34, 5, 561-581.

Strauss, A. & Corbin, J. (1990). *Basics of Qualitative Research*. Sage Publications.

Tabachnik, B. & Fidell, L. (2007). *Using multivariate statistics*, 4th Edition. Boston: Allyn & Bacon. Manzo, L. & Devine-Wright, P. (2014). *Place Attachment: Advances in Theory, Methods and Applications*. London Routledge.

Timotijevic, L. & Breakwell, G. (2000). Migration and Threat to Identity. *Journal of Community and Applied Social Psychology*, 10, 355-372.

Tobiasson, W. & Jamasb, T. (2014). Sustainable Electricity Grid Development and the Public: An Economic Approach. *EPRG Working Paper*. Available online: <http://www.eprg.group.cam.ac.uk/wp-content/uploads/2014/09/1411-PDF1.pdf>

Tomaney, J. (2014). Region and place 2: Belonging. *Progress in Human Geography*, 1-10.

Toynbee, P. (2007). 'NIMBYs can't be allowed to put a block on wind farms'. *The Guardian*. January 5th, pp31.

Tuan, Yi-Fu. (1971). Geography, Phenomenology, and the Study of Human Nature. *The Canadian Geographer*, 15(3), 181-192.

Tuan, Yi-Fu (1974). *Topophilia: a study of environmental perception, attitudes and values*. Englewood cliffs, London.

Tuan, Yi-Fu (1977). *Space and Place: the perspective of experience*. Minneapolis: University of Minnesota Press.

Tuan, Yi- Fu (1980). 'Rootedness versus Sense of Place', *Landscape 24*: 3-8.

Twigger-Ross, C. & Uzzell, D. (1996). Place and Identity Processes. *Journal of Environmental Psychology*, 16, 205-220.

Twigger-Ross, C., Bonaiuto, M. & Breakwell, G. (2003). Identity Theories and Environmental Psychology. In: Bonnes, M., Lee, T. & Bonaiuto, M. (2003) *Psychological Theories for Environmental Issues*. Ashgate.

Tyler, T. (1994). Psychological Models of the Justice Motive: Antecedents of Distributive and Procedural Justice. *Journal of Personality and Social Psychology*, 67(5), 850-863.

Tyler, T. & Smith, H. (1995) Social Justice and Social Movements. UC Berkeley: Institute for Research on Labour and Employment. Available online: <http://escholarship.org/uc/item/54d3j035>

UK Census Data (Mid-2010). Nailsea population statistics. Available online: <http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-uk--england-and-wales--scotland-and-northern-ireland/mid-2010-population-estimates/index.html>

Upham, P. & Shackley, S. (2006). The case of a proposed 21.5 MWe biomass Gasifier in Winkleigh, Devon: implications for governance of renewable energy planning, *Energy Policy*, 34(15), 2161-2172.

Van Dam, F., Heins, S., & Elbersen, B. (2002). Lay discourses of the rural and stated and revealed preferences for rural living. Some evidence of the existence of a rural idyll in the Netherlands. *Journal of Rural Studies*, 18(4), 461-476.

Van der Horst, D. (2007). NIMBY or not? Exploring the relevance of location and the politics of voiced opinions in renewable energy siting controversies. *Energy Policy*, 35, 2705-2714.

Venables, D., Pidgeon, N., Parkhill, K., Henwood, K. & Simmons, P. (2012). Living with nuclear power: Sense of place, proximity, and risk perceptions in local host communities. *Journal of Environmental Psychology*. 32, 371-383.

Vorkinn, M. & Riese, H. (2001). Environmental Concern in a Local Context: The Significance of Place Attachment. *Environment and Behavior*, 33, 249-263.

Wagner, W. et al. (1999). Theory and method of social representations. *Asian Journal of Social Psychology*, 2, 95-125.

Walker, G., Devine-Wright, P., Barnett, J., Burningham, K., Cass, N., Devine-Wright, H. (2011) Symmetries, expectations, dynamics and contexts: A framework for understanding public engagement with renewable energy projects. In: Devine-Wright

P (ed.) *Renewable Energy and the Public: From NIMBY to Participation*. London: Earthscan, pp. 1–14.

Walker, B., Wiersma, B. & Bailey, E. (2014). Community benefits, framing and the social acceptance of offshore wind farms: An experimental study in England. *Energy Research & Social Science*, 3, 46-54.

Wallwork, J. & Dixon, J. (2004). Foxes, green fields and Britishness: On the rhetorical construction of place and national identity. *British Journal of Social Psychology*, 43, 21-39.

Williams, D. (2014). "Beyond the Commodity metaphor," Revisited: Some Methodological Reflections on Place Attachment Research. In: Manzo, L. & Devine-Wright, P. (2014). *Place Attachment: Advances in Theory, Methods and Applications*. London Routledge, pp. 89-99.

Wolsink, M. (2000). 'Wind Power and the NIMBY-myth: institutional capacity and the limited significance of public support' *Renewable Energy*, 21, 49-64.

Wolsink, M. (2007). Wind power implementation: The nature of public attitudes: Equity and fairness instead of 'backyard motives'. *Renewable and sustainable energy reviews*, 11(6), 1188-1207.

World Nuclear Association (2014). Available online: <http://www.world-nuclear.org/info/Country-Profiles/Countries-T-Z/United-Kingdom/>

Yeoh, B. & King, L. (1996). The notion of place in the construction of history, nostalgia and heritage in Singapore. *Singapore Journal of Tropical Geography*, 17(1), 52-65.

Appendix One: Pre-narrative Interview Task

Hi and thanks for taking the time to complete this 'Pre-Interview task'. This is designed to get you thinking about particular themes and experiences prior to the oral interview. Feel free to type up your answers directly onto this document. Please e-mail your completed pre-interview task to this address: ebb202@exeter.ac.uk

- Activity 1:

Try to think back to the places you've lived over your lifetime, including other meaningful places (non-residence places such as holiday homes or destinations, second homes, family visits) and list them below.

- Activity 2:

Using your list above, please complete the table below, starting with the first place you remember living in and moving on from there (don't forget to include non-residence places if you have listed any). This is an opportunity for you to think back at your life and experiences in each of these places and to reflect upon the feelings that you may have towards them. Try to think about how your relationship to each place might have changed both during and following life in each location. Take as much time as you like with this activity – your completed 'Place History Grid' can be used as a guide for the interview.

You may wish to consider some or all of the following questions whilst completing your place history grid:

- *To what extent did you/do you feel emotionally invested in each place?*
- *To what extent are your feelings towards a place based on people?*
- *How satisfied were you/are you of life in each place?*
- *How would you characterise or describe each place?*
- *How, if at all, did your relationship to each place change during and after life in each location?*
- *Did moving from one place to another affect your feelings towards one or the other?*
- *Are there things that you miss from past places? If so, what?*
- *Do you ever re-visit past places? If so, why?*

Place Name	DATES for which you lived in each place	AGE	Your THOUGHTS and FEELINGS about life in each place

- Activity 3:

Please write down five words or phrases (or more if you wish) that you feel best describe the area where you currently live.

- Interview Availability:

Please state below your daily/weekly availability for completing the interview and/or any preferences you might have in this regard.

Appendix Two: Narrative Interview Guide

Part 1 – Introduction (approximately 5 minutes):

1. Firstly, I would like to **thank you all for your interest and participation** in this interview.
2. I'm conducting this interview as part of my PhD research project at the University of Exeter – I'd just like to make clear that my project is **completely independent** from any developer or Government organization.
3. I'd **like to talk with you about** your views regarding your past residence places, Nailsea as a place, and also your views of the HPC power line connection project.
4. There are **no wrong or right answers** to the questions I'm going to ask, so do feel free to say whatever you think or feel about the subjects being discussed.
5. **Audio-recorded consent.** Any material used will be kept **anonymous and confidential**.
6. Also, at the end of our discussion, I'll provide you with my **contact details** in case you want to have more information about the research once it's completed.

Part 1 – Relations to past places:

(Some participants utilised their place history grids at this stage of the narrative interview)

- What were your feelings about living in...? How did you feel towards...whilst living there?
 - How would you describe...as a place?
 - Were there things that you particularly liked or disliked about living in...?
 - Were there aspects of your life in....that were particularly meaningful to you? What and why?
 - Were there any activities that you took part in whilst living in....? What and where?
 - Did your feelings towards...change whilst you lived there? What prompted/led to this change?
-
- How did you feel when you moved away from...?
 - Were/Are there things that you miss(ed) from your life in....?
-
- Looking back now at your life in... how do you think your feelings towards the place have changed? Do you feel that you relate differently to...now?

Part 2 – Place relations to Nailsea:

(1) People-Place Relations:

- How did you feel when you first moved to NS? What are your feelings about living in Nailsea today?
- Are there things that you like/dislike about living in NS?

- Are there places in or around NS that hold particular significance for you? What and Why?
- What kinds of activities, if any, have you taken part in whilst living in NS?
- Is meeting with friends, family and neighbours an important part of your life in NS? How so?
- Do you read local newspapers? Which ones? Has there been anything in the local news lately that has been of interest to you?
- Do you tend to keep in touch with what's going on in or around NS?
- Have your feelings towards NS changed since you've lived here? What do you think prompted this change in your feelings towards NS? Do you have any plans to move away from NS? Why?

(2) Place meanings:

(Linked to activity 3 of pre-interview task)

- How would you define NS as a place? And the countryside around Nailsea?
- If you had to describe NS to someone who has never been here before, what would you say?
- Based on the words and phrases you used in activity 3 of the pre-interview task, you seem to define NS as..... Would you mind telling me more about this?

Part 3 – Experiences of and responses to the HPC power line proposal:

- Are you aware of NG's plans to develop a HV power line proposal in the area?
- When did you first become aware of/find out about the power line proposal? How?
- What are some of the first things that come to mind when you think of the power line proposal?
- Has knowledge of the power line proposal affected your feelings towards NS?
- Do you feel that the proposed power line will have an impact on NS as a place/on the character of Nailsea or surrounding countryside areas? How?
- Do you feel that the proposed power line will have an impact on the character of NS and surrounding countryside areas?

Part 1 - Info + Introduction [approx. 5 mins]:

1. Firstly, I would like to **thank you all for your interest and participation** in this group discussion.
2. I'm conducting this group discussion as part of my own PhD research project at the University of Exeter – I'd just like to make clear that my project is **completely independent** from any developer or Government organization.
3. Really I'd **like to talk with you about** your views regarding Nailsea as a place and also your views of the HP power line connection project.
4. Point out that there are **no wrong or right answers** to the questions I'm going to ask, so do feel free to say whatever you think or feel about the subjects being discussed.
5. **Audio-recorded consent.** Any material used will be kept **anonymous and confidential**.
6. Also, at the end of our discussion, I'll provide you with my **contact details** in case you want to have more information about the research.
7. **Common courtesy** – if you could try your best not to talk over each other if at all possible.
8. **Introductions:** *First of all, it would be great if everyone briefly presented themselves to the group – so you can tell your name, age, professional activity (if any), where you live and how long you've lived there. So I'll start...*

Part 2.1 - Place-related meanings – Nailsea + CS:

So, all of you live in or around this area and I'd like to talk with you a bit more about this...

1. How would you **describe NS (+CS around NS)** to someone who's not from here or who's never been here before?
 - *So you described NS/CS as _____, could you say a bit more about that?*
 - *Is that a view that others here would share?*
 - *Would anyone here describe NS/CS in a different way?*
 - *Name(s), how would you describe NS/CS to someone?*
2. Some people suggest that the CS around Nailsea is a natural, restful and restorative environment. Is this a view any of you would share?
 - *Some people might describe the CS around NS as 'natural' – what do you think they mean by that?*
 - *Some people have said that the CS around NS should be preserved for future generations. Is this a view anyone here would share? Why?*
3. Some people view the CS around NS in a more functional way – for example, as a suitable area for various forms of development. Is this a view any of you would share?
 - *Why? What kinds of development?*
 - *Do people hold sentimentalized views of the CS around NS?*

Part 2.2 - Other place-related questions:

4. What makes this area **distinctive**, if anything, from other places?
→ *Distinctive from? Similar to?*
5. What would you say are the **positive aspects** of living in this area? Main **negative aspects** of living in this area? Others?
6. To what extent does this area **allow you to do the things** you need to do in life (e.g. shopping, dentist etc.) and the things you like to do (e.g. recreational activities)?
Is there anything missing from Nailsea?
7. Does anyone here perform any **recreational activities** in this area? *What kinds? Where? Is this important to your life in NS?*
8. Why have you **chosen, if you have, to live in this area?**

Part 3.1 - People – Place relations (personal level):

So I'd like to talk with you now about your feelings towards living in this area...

1. How do you all **feel about living in this area?** Do any of you, for example, feel **strongly connected** to this area?
 - *What is it, do you think, that makes you feel connected/rooted to this place?*
 - *How strongly attached do you feel towards this place?*
 - *How much do you consciously think about your connection to this place?*
 - *To what extent do you take an interest in what goes on in the area? How do you stay in touch what's going on?*
 - *Do you tend to get actively involved in community-based activities in the area? Kinds of activities? With whom? If not, why not?*
 - *Does anyone relate/feel differently to this area?*
2. Do any of you **feel less strongly connected** to this area?
 - *What is it that makes you feel this way about the place?*
 - *[So name(s), how do you feel about living in this place?]*
3. So, would any of you like to **keep living** in this area in the future, or can you see yourselves **living elsewhere?** Why? Why not?
4. For those of you who have **lived in other places** before coming to this area – what feelings, if any, do you have towards those places today?
 - *Are there things that you miss about those/those place(s)? What?*
 - *Have you ever re-visited or wanted to re-visit past places? Why?*
 - *Does anyone feel a sense of nostalgia to past places? Which ones? How would you describe the feeling? What are you nostalgic for?*

Part 3.2 - People - Place relations (Socio-cultural level):

5. Thinking about the **community more generally**, do you think people around here feel weakly or strongly attached to Nailsea? *Why? Who specifically? Has this changed? How? Why might this have changed?*

Yesterday, I interviewed someone who had lived in NS their whole life and who felt deeply rooted to the place...couldn't consider moving anywhere else.

6. Do you think that this way of life/way of relating to places is **still relevant for people today**?

→ *What kinds of people live like this today? 'Home birds'? What kinds of places?*

7. Do you think **the way people connect/bond** with places today has **changed**?

→ *How? Why?*

→ *Do people think much about their connection with places today?*

→ *Do people take places for granted?*

8. Does anyone think that people **live differently these days** – for example do people tend to be less strongly attached to where they live nowadays?

→ *How do they live? Why?*

→ *What kinds of people? What kinds of places?*

→ *Do people today have more than one place they call 'home'?*

→ *Is 'home' still important to people nowadays? Depends on life stage?*

Part 4 - HPC power line proposal + impacts (general + place relations/characs):

Have any of you already heard about the proposed project to construct a high-voltage power line through the area?

Background info: In [DATE] National Grid, the transmission network operator of the electricity grid in England and Wales announced that a new 400 kV transmission line would be constructed in this area to connect [X] to [Y]. At this stage, some consultation with key stakeholders and local communities has already been conducted by National Grid and [a specific route corridor/the final connection] has already been chosen. National Grid previews that the connection will be constructed by [YEAR].

1. When did you get to know about the project?

2. How did you get to know about the project? *Something through the post?*

3. Can anyone tell me a bit more about the proposal?

→ *What are the main characteristics of the project?*

→ *Who's proposing the project?*

→ *Why is the project needed? [Needs Case]*

4. And what's your **position** towards the proposal? (Explore different types of responses – support, acceptance, opposition, ambivalence etc.)

→ *Why do you hold that position?*

- *Have any of you changed your position regarding the project in any way, since you first heard about it? Why?*
 - *What are the main positive aspects, if any, of the project? And negative aspects?*
5. Do you think the proposed power line might change the way people feel towards NS as a place?
- *How? Why?*
 - *Have your feelings towards NS changed due to the proposed power line? How?*
 - *Would you be happy to keep living in this area knowing about the proposed power line? Why not? Why?*
7. If you had to describe the HV power line that might be built here, how would you describe it?
8. Do you think the proposed power line might affect the character of the area – say the countryside around Nailsea?
- *How? Positively or negatively?*
 - *EXPLICIT: Some people have suggested that the proposed power line will be ‘iconic’ of the English countryside. Is this a view that you would share?*
 - *EXPLICIT: Some people have suggested that the proposed power line would be ‘out of place’ or might ‘industrialise the area’. Are these views that you would share?*
9. Would anyone miss Nailsea as it is now, if the power line were to be constructed?
10. What do you think **other people in general** living in this area think about the proposed power line? Why?
11. Do you know of any **groups supporting/opposing** the proposed connection? NAPs? SNW?
12. Have any of **you participated** in any group activities either in support or opposition to the connection project?
13. Do you think people in this area are **able to impact**, in any way, on what decisions are made regarding the PL proposal? If so, how? If not, who is able?
14. What do you think about the **ability of citizen groups** (such as NAP/SNW) to influence the decision-making process? Any influence? How?
15. What should NG be doing to make the process fairer?
16. Do you trust NG?
17. What, if anything, would make you change your current position regarding the PL proposal?



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- This survey is part of a larger PhD research project at the University of Exeter (Human Geography), and aims to better understand people's relationships with Nailsea and their experiences of changes to the place.
 - Your participation is voluntary, and you may discontinue at any time. Any data collected will be kept strictly anonymous and confidential.
 - You must be 18 years or older and a Nailsea resident to complete this survey.
 - At the end you have the opportunity to provide your email or postal address which will only be used for the purposes of this survey and to enter you into a **prize draw**.
- **Please leave the completed survey on your doorstep securely in the bag provided for collection from 10am on Sunday 10th August – collection will occur over Sunday and Monday**

A. The following statements are about the places you have lived in your lifetime. Please select one of the following statements only by placing a tick in the appropriate box to the right.

1. I have lived in Nailsea for my whole life	
2. I grew up in Nailsea, moved away and then returned as an adult	
3. I moved to Nailsea as an adult from a similar kind of place	
4. I moved to Nailsea as an adult from a different kind of place	
5. Other (please specify):	

6. In total, how many years of your life have you lived in Nailsea? Years

7. How many times have you moved house in your life? Times

8. How many different villages, towns or cities have you lived in?

B. The following statements are about how you think people relate to places in general. Please indicate how much you agree or disagree by circling one number only for each statement. Please answer all the statements.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. It's natural to put down roots in a place	1	2	3	4	5
2. Everyone needs a place to anchor themselves to	1	2	3	4	5
3. Putting down roots in a place isn't important for people today	1	2	3	4	5
4. In general, people these days tend to fly the nest	1	2	3	4	5
5. People will always want somewhere to tie themselves to	1	2	3	4	5
6. People don't really need to anchor themselves to places	1	2	3	4	5

C. The following statements are about your relationship with Nailsea. Please indicate how much you agree or disagree by circling one number only for each statement. Please answer all the statements.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. I miss Nailsea when I am not here	1	2	3	4	5
2. I feel foreign here	1	2	3	4	5
3. I feel safe here	1	2	3	4	5
4. I am proud of Nailsea	1	2	3	4	5
5. Nailsea is a part of me	1	2	3	4	5
6. I would like to move out of Nailsea	1	2	3	4	5
7. I want to be engaged in its affairs	1	2	3	4	5
8. I am rooted here	1	2	3	4	5
9. I would like my family and friends to live here in the future	1	2	3	4	5

D. The following statements are about how you would describe the countryside around Nailsea. Please indicate how much you agree or disagree by circling one number only for each statement. Please answer all the statements.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. The countryside around Nailsea is natural	1	2	3	4	5
2. The surrounding countryside is a quiet and calm environment	1	2	3	4	5
3. Modern farming machinery has industrialised the countryside around Nailsea	1	2	3	4	5
4. Electricity pylons are a normal part of the countryside around Nailsea	1	2	3	4	5
5. I'm quite used to seeing pylons going through the countryside around Nailsea	1	2	3	4	5
6. Modern farming machinery has made nearby countryside less tranquil	1	2	3	4	5
7. The surrounding countryside is like an old Cathedral that needs preserving	1	2	3	4	5
8. Pylons are a familiar part of the countryside around Nailsea	1	2	3	4	5
9. Modern farming machinery disrupts the peaceful nature of nearby countryside	1	2	3	4	5

E. The following statements are about how you feel towards Nailsea. Please indicate how much you agree or disagree by circling one number only for each statement. Please answer all the statements.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. Even if there are better places to live, I am not going to move out of Nailsea	1	2	3	4	5
2. I cannot imagine leaving Nailsea for good	1	2	3	4	5
3. I like to keep up with changes in Nailsea	1	2	3	4	5
4. I like to wander around Nailsea and discover new places	1	2	3	4	5
5. I don't care about where I live	1	2	3	4	5
6. I don't get attached to any particular places	1	2	3	4	5
7. Nailsea has many advantages but if I find a better place, I will move out	1	2	3	4	5
8. I could equally well live here as in any other place	1	2	3	4	5
9. I dislike living in Nailsea	1	2	3	4	5
10. I feel alienated living here	1	2	3	4	5
11. I have never considered if living somewhere else would be better	1	2	3	4	5
12. I have strong family connections in Nailsea	1	2	3	4	5
13. I often take photographs of various places in Nailsea	1	2	3	4	5
14. From time to time, I discover Nailsea anew	1	2	3	4	5
15. I don't anchor myself to places	1	2	3	4	5
16. How I live is more important to me than where I live	1	2	3	4	5
17. I feel estranged living in Nailsea	1	2	3	4	5
18. Nailsea really isn't the right place for me	1	2	3	4	5
19. It wouldn't bother me to leave Nailsea and move elsewhere	1	2	3	4	5
20. There are many places in the UK and in the world where I could live	1	2	3	4	5

- National Grid (the electricity grid operator for the UK) has proposed to construct a *new high-voltage overhead power line* to the North-West of Nailsea. There are currently two existing 132 kV power lines running to the North-West of Nailsea – one will be removed and the other placed underground from Nailsea to Portishead substation. Five miles of the new overhead power line will be placed underground through the Mendip Hills area.

F. The following statements are about potential effects of the power line proposal on countryside areas around Nailsea. Please indicate how much you agree or disagree by circling one number only for each statement. Please answer all the statements.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. The power line proposal will industrialise the countryside around Nailsea	1	2	3	4	5
2. The power line will create an eyesore	1	2	3	4	5
3. The power line won't have a huge impact on the countryside around Nailsea	1	2	3	4	5
4. Pylons are part of the countryside, I don't see the power line proposal any differently	1	2	3	4	5
5. The power line will be incredibly ugly and out of proportion	1	2	3	4	5
6. The proposed power line will blend into the surrounding countryside	1	2	3	4	5

G. The following statements are about the role Nailsea residents have in planning decisions regarding the power line proposal. Please indicate how much you agree or disagree by circling one number only for each statement. Please answer all the statements.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. I think the planning process for the power line proposal has been fair	1	2	3	4	5
2. The planning process for the power line proposal has been secretive	1	2	3	4	5
3. I believe local people have had a say in the planning process for the power line proposal	1	2	3	4	5
4. I feel I have not been able to influence the planning or siting of the power line proposal	1	2	3	4	5
5. I feel local people have had enough time to respond to the proposal	1	2	3	4	5

(H) The following statements are about perceived costs and benefits of the power line proposal. Please indicate how much you agree or disagree by circling one number only for each statement. Please answer all the statements.

The power line proposal would.....	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. Create an eyesore in the local countryside	1	2	3	4	5
2. Provide jobs for local people	1	2	3	4	5
3. Scar Nailsea with pylons	1	2	3	4	5
4. Help keep the country's lights on	1	2	3	4	5
5. Reduce local property values	1	2	3	4	5
6. Help meet national energy policy targets	1	2	3	4	5
7. Damage local people's health by producing electro-magnetic fields	1	2	3	4	5
8. Bring too much construction traffic to the local area	1	2	3	4	5
9. Help tackle climate change	1	2	3	4	5

(I) How much do you trust the following organisations? Please answer all five options.

	Trust completely		Somewhat trust		Do not trust at all	Don't Know
1. National Grid Plc (UK electricity transmission grid operator)	1	2	3	4	5	6
2. Nailsea Against Pylons	1	2	3	4	5	6
3. Nailsea Town Council	1	2	3	4	5	6
4. The Planning Inspectorate	1	2	3	4	5	6
5. EDF Energy (developer of the Hinckley Point C reactor)	1	2	3	4	5	6

(J) The following statements are about your position towards the Hinckley Point C power line proposal. Please indicate how much you agree or disagree by circling one number only for each statement. Please answer all the statements.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. I fully reject the power line proposal	1	2	3	4	5
2. I oppose the power line proposal	1	2	3	4	5
3. I am indifferent towards the power line proposal	1	2	3	4	5
4. I accept the power line proposal	1	2	3	4	5
5. I support the power line proposal	1	2	3	4	5
	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
6. I think the power line proposal is a bad idea	1	2	3	4	5
	Strongly positive	Fairly positive	Neutral	Fairly negative	Strongly negative
7. Overall, how positive or negative do you feel about the proposed power line?	1	2	3	4	5

(K) Please tell us some information about yourself. Please answer all questions.

1. Are you.....? (Please circle the appropriate number)

Male	1
Female	2

2. What age were you on your last birthday?

3. Please select the highest education level that you have achieved by circling the appropriate number.

None	1	Undergraduate degree, BA, BSc	4
O level, GCSE, NVQ I. 1-2	2	Postgraduate degree, MA, MSc, PhD	5
A level, AS/A2 level, NVQ I. 3-4	3	Other	6

- **Thank you very much for having taken the time to complete this questionnaire survey, it is very much appreciated!**
 - If you would like to be entered into the **prize draw** please provide either your ***email*** or ***postal address*** so that you can be contacted. Please note these details will only be used to provide you with further information regarding this survey and to notify you if you have won a prize. It will not be distributed to third parties. Please write either a *postal address* or *email address* here:
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In case you would like to receive more information about my PhD project or would like to discuss any other aspect of it, please do not hesitate to contact me using the following email address:

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