Discourses We Live By
Narratives of Educational and Social Endeavour

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What are the influences that govern how people view their worlds? What are the embedded values and practices that underpin the ways people think and act? Discourses We Live By approaches these questions through narrative research, in a process that uses words, images, activities or artefacts to ask people – either individually or collectively within social groupings – to examine, discuss, portray or otherwise make public their place in the world, their sense of belonging to (and identity within) the physical and cultural space they inhabit.

This book is a rich and multifaceted collection of twenty-eight chapters that use varied lenses to examine the discourses that shape people's lives. The contributors are themselves from many backgrounds – different academic disciplines within the humanities and social sciences, diverse professional practices and a range of countries and cultures. They represent a broad spectrum of age, status and outlook, and variously apply their research methods – but share a common interest in people, their lives, thoughts and actions. Gathering such eclectic experiences as those of student-teachers in Kenya, a released prisoner in Denmark, academics in Colombia, a group of migrants learning English, and gambling addiction support-workers in Italy, alongside more mainstream educational themes, the book presents a fascinating array of insights.

Discourses We Live By will be essential reading for adult educators and practitioners, those involved with educational and professional practice, narrative researchers, and many sociologists. It will appeal to all who want to know how narratives shape the way we live and the way we talk about our lives.

As with all Open Book publications, this entire book is available to read for free on the publisher's website. Printed and digital editions, together with supplementary digital material, can also be found at www.openbookpublishers.com
Hazel R. Wright uses a recall approach to gather and compare the distinctive views of nature held by four members of different generations within the same family. The narratives collected are examined for evidence of residual learning, to judge the respective importance of formal schooling, real experiences and family practices when forming individual worldviews of nature.

In this chapter, I consider how humans relate to the natural world in which they live. To do this, I first present a brief overview of the classic discourses of nature that were dominant in different historical periods. I then examine data I collected through a small contemporary empirical study in an English context. This study sought personal views of nature, to see how these were formed and whether they reflect the historical discourses. To capture changing time frames, I talked to people from different generations. Assuming that individual viewpoints will be mediated by everyday encounters — with social discourses, educational opportunities and within the family and local environment — I chose members of four generations of the same family, seeking to identify how their funds of knowledge came into play (Vélez-Ibáñez & Greenberg, 1992).

Nature is present in everyone’s life, even in the most urbanized contexts there is ‘unofficial countryside’, marginal sites of wasteland.
where wildlife thrives (Lorimer, 2008, p. 2042), so, as a topic, nature allowed the possibility of different types of learning, within schools, homes and the community. However, the family grouping offered an element of geographical congruence as all members lived in similar rural environments in the south-west of England. As data collection relied on retrospection and recall, the process created a space in which to consider residual learning and whether understandings of nature developed from formal, non-formal, informal or incidental learning opportunities (Foley, 2004). I was interested to see whether ideas about nature were predominantly passed down through family practices, learned in school or simply absorbed through contact with the natural world. At the analysis stage Bamberg’s (2014) distinction between Capital-D and small-d discourses merited attention, as will become clear.

Classic Discourses on Nature

The geographer Noel Castree (2005, p.xvii) claims nature to be ‘one of the most widely talked about and investigated things there is’, and one that ‘continues to be understood in a multitude of ways, many of them incompatible’. Yet it is also ‘one of the most important topics in our lives’ (p.xix). In practice it is ‘a portmanteau word or what social scientists call a “chaotic concept”’ (p. 36). Despite this chaotic characteristic, I sought an overview for nature discourses (in the sense of plants and animals) and found a starting point in Glacken’s (1999) work; a framework around which I could assemble a partially chronological account.

In his Reflections on the History of Western Attitudes to Nature, Glacken (1999, p. 1) identified four underpinning discourses that developed over time but still have currency. First, he describes an historical focus on the interrelationships between humans and other life forms, more easily termed the Supremacy discourse. Next, he identifies a desire to clarify connections within the natural world, which I refer to as the Classificatory discourse. He then considers the position whereby human influences effect changes to the natural world, for brevity the Exploitative discourse, and finally, discusses ‘subjective, emotional and [a]esthetic reactions to nature’ (ibid., p. 15) for simplicity, the
Appreciative discourse. These discourses were dominant in different periods through history but linger on in different guises even now.

The Supremacy Discourse

This discourse is belief based. It unequivocally places a divine being in a superior position and views humankind as the embodiment of celestial power. Living things have a natural order. Although Glacken acknowledges that such ideas were modified as time passed, he sees anthropocentric conceptualizations as clearly rooted in the classical world and in line with biblical interpretations of nature where the human is unequivocally positioned at the apex, answerable only to an omnipotent deity. A variation of this belief, Creationism, sees God as the absolute creator of heaven and earth and all living things (Ruse, 2018) and interprets the Bible literally to attribute the development of the world to a six-day period (Numbers, 1992). Despite being ‘a commonly and loosely used term’ (Emerson & Hartman, 2006, p. 128), religious fundamentalism, as ‘a militant truth claim which derives its claim to power from non-disputable, higher revelation, people, values, or ideologies’ (Schirrmacher, 2013, p. 13) is a contemporary belief system that attributes absolute power to a supreme deity. It may also be a protest against the secularity of modernist societies (Emerson & Hartman, 2006, p. 128) for it can be seen as ‘the rational response of traditionally religious peoples to social, political and economic changes that downgrade and constrain the role of religion in the public world’ (Bruce, 2000, p. 117).

The Classificatory Discourse

Glacken’s second discourse is knowledge based. It also builds on ideas established in Greek, and possibly earlier, civilizations’ desires to rank life forms, but came to the fore in the European Renaissance of the seventeenth century, with Francis Bacon a keen protagonist (Pyenson & Sheets-Pyenson, 1999, p. 251). Knowledge of nature had its roots in natural theology (immanent in the first, supremacy, discourse) — the descriptive works of Ray, White, Paley and Muir — but also in the classificatory activities of Linnaeus, Humboldt, and Darwin, for example.
Darwin’s *On the Origin of Species* (1859/2009) is based on empirical observation and, with its evolutionary stance, explains both change over time (tracing the origins of humankind to their ancestors, the apes) and variations within species according to genetic mutation (Desmond, 2019). The formal learning of plant and animal names and labels continued within education throughout the modern period, ensuring a ‘solid and unchallengeable foundation’ for precise communication among new generations of scientists (Phillips, 1989, p. 59).

The Exploitative Discourse

This discourse has a functional basis. The intention to harness nature to the service of mankind, named by Worster (1994/1977) the Imperialist discourse, is also attributed to Francis Bacon, although, again, such ideas stem from classical times (Bunnin & Yu, 2004), and his objective was simply to encourage nature to ‘yield to us her fruits’ (More, 1943, p. 492). However, this pursuit of greater productivity gave the natural sciences dominance (Serjeantson, 2014), feeding modernist beliefs that progress can be fuelled by continual advances in scientific knowledge, and leading ultimately to environmental crisis (Norgaard, 2006), as mechanization, modification and materiality increasingly challenge the earth’s ability to replenish its resources (McKibben, 1990).

The Appreciative Discourse

This fourth discourse, named by Worster (1994/1977) the Arcadian viewpoint, refers to subjective, emotional and aesthetic reactions to nature, so implies that any discussion will be individualized. Indeed, selectivity is inevitable due to the breadth of possible content: the aesthetic alone includes a range of art forms. The label ‘Romanticism’ applies to an ‘efflorescence’ of responses to nature (through art, music, poetry and literature) from the mid-eighteenth to the mid-nineteenth century, as the sensitive sought refuge from the industrial revolution (Grout, 1973, p. 543) but continued well beyond that period and into new art forms as technology progressed (Sanders & Albers, 2010). Relevant too, is Edward Wilson’s notion of biophilia, defined as ‘the innately emotional affiliation of human beings to other living organisms’ (Wilson, 1993, p. 31).
The Crisis Discourse

None of Glacken’s categories adequately lead to the contemporary ‘environmental crisis’ discourse, although the exploitative and appreciative discourses point this way. This is a discourse that dominates news broadcasts but it is a contested topic: the message is not entirely negative. Even the nature expert Castree (2005, p. 6) raises doubts about whether we are witnessing ‘the end of nature’ (McKibben, 1990) while stressing the need to protect our planet. Also the UK *State of Nature* report (Hayhow et al, 2016), a publication produced by more than seventy organizations, supports a positive outlook. In its Foreword, Attenborough recognizes that nature ‘needs our help as never before’ but also draws attention to the number of innovative conservation projects that are underway, believing that if we ‘all pull together, we can provide a brighter future for nature and for people’.

To summarize, in major Discourses, nature is seen as a gift from ‘God’, as comprehensible when systematized, as a resource for mankind, as a source of pleasure, and as a habitat in crisis.

The Empirical Study

Now, I turn to my own research with a small sample of people from different generations of a single family, and to data collected prior to learning about these conceptualizations, but first I present some relevant frameworks.

Theoretical Frameworks

*Forms of Learning*

Foley (2004) acknowledges that learning is embedded in all aspects of living before identifying four dimensions of adult learning relevant to this study. *Formal* education takes place in a classroom or a workplace training session. It has specific curricular goals and often leads to a qualification. *Non-formal* education is more sporadic but still systematic, maybe one-off sessions to serve a specific purpose. *Informal* applies to learning that is deliberate but not taught, like individual and group reflection or a review of a situation. *Incidental* is unplanned.
(experiential) learning occurring naturally through engagement in other activities. It may be tacit rather than directly acknowledged by the learner. I would argue, therefore, that family learning is often incidental but could be non-formal or informal if instruction is planned or intentional.

**Funds of Knowledge (FoK)**

FoK refers to existing knowledge upon which people can draw in new situations. This may have been acquired through any of the learning practices that Foley lists but, like incidental learning, often remains tacit until needed (or excavated during the interview process). Moll and colleagues (1992) used this concept in home-school studies in Mexico, establishing the ‘accumulated bodies of knowledge of the households’ (Vélez-Ibáñez & Greenberg, 1989) to enable researchers to better understand learning processes within families and their potential for classroom utility. FoK is frequently used in planning environmental education for young children (Edwards et al, 2016) and more widely, and is useful when considering family learning in this study.

**Types of Discourse**

Bamberg’s discussion of Capital-D and small-d discourses raises some interesting points for the analysis of the data. Bamberg (2014) labels Capital-D discourses as those that ‘reflect’ existing concepts, beliefs and ideologies and small-d discourses as those that ‘constitute’ current assumptions (p. 132). He associates these, respectively, with dominant (master) narratives or everyday forms of talk (small stories) (p. 133), seeing Discourses as accepting language as transparent, and discourses as using language to shape and change the world; a toolbox for sense-making (p. 133). Furthermore, Bamberg views this discursive differentiation as equating to different goals: Discourses aim to ‘scrape out the implicit worldviews that individuals propagate through the stories they tell about their lives’ and discourses interactively navigate ‘a sense of who-they-are’ and having ‘two-directions of fit’, leads them to choose to adopt a role at one end of the spectrum, to act agentively at the other (p. 134).
Bamberg acknowledges that both types of discourse share a similar constructivist orientation initially as they are part of a ‘language-based, discursive narrative framework’ (pp. 132–3). Importantly, too, he recognizes that both lenses matter as ‘people are both agentive and influenced by pre-existing discourses and master narratives for the construal of self and others’ (p. 133). More problematically for my study, Bamberg sees each type as calling for different methodological approaches. The exploration of Discourses needs methods that ‘try to tap into these concepts’ through questionnaires, experimental design, or as in my case, interviews. Whereas discourses are developed through ‘talk’ (p. 133), reflecting the small-stories concept (Bamberg, 2007; Georgakopoulou, 2007; Bamberg & Georgakopoulou, 2008), and earlier work on talk-in-interaction (Psathas, 1995). Bamberg’s divisions identify the potential for dissonance when research starts out to explore viewpoints through interviews and finds the participants agentively constructing their own meanings, perhaps worldviews, even if unconsciously; a point that will be further explored later.

Taken together these frameworks capture the processes through which people may develop a concept of nature. They offer ways to distinguish between learning that is taught and that which is gained from ‘merely’ living, and to identify that which is passed down through the generations from that which is individually, maybe even randomly, acquired. The notion of D- and d-discourses offers a means to distinguish between established and individual viewpoints, making a space for original thought, for personal interpretation and agency when considering how people ‘see’ nature.

Methodological Approaches

Participants

The family members from four generations all happened to be female, setting the inquiry within a series of cascading mother-daughter relationships, and offering an opportunity to capture possible learning through family practices, albeit down the female line. Taking a historicist stance, the intention was to capture instances of change and continuity by talking to people who knew each other intimately, who shared a common (if evolving) social background and whose views
might be expected to display similar cultural threads. As the participants lived in locations that were geographically distant, I elected to carry out the interviews by telephone, writing copious field notes to capture ideas and phrases of speech and transcribing immediately afterwards to optimize accuracy.

From the outset the participants were given pseudonyms (Jo, Vera, Stacy, Harriet) to maintain anonymity and protect their identities. To assist the reader, the chosen names lengthen in inverse proportion to age, so the shortest name refers to the oldest participant.

Jo, aged eighty-nine, was born in the late 1920s, so, for her, schooling was something to be valued, as only elementary education was compulsory. However, she was able to ‘stay on’ at school and studied biology at the height of the modernist paradigm when ‘scientific’ objectivity (Phillips, 1989) was dominant.

For Vera, Jo’s daughter, aged fifty-eight, schooling was compulsory until fifteen and influenced by the child-centric movement that ‘made it impossible to derive an effective pedagogy’ (Simon, 1999/1981, p. 42), in a system that divided children at eleven into an academic minority and the rest who, like her, attended secondary-modern schools where teaching had a practical orientation.

Stacy, aged thirty-four, a child of the early ’eighties, entered primary school shortly before the government introduced a National Curriculum (in 1988), regular testing and school inspection, seriously stressing teachers who resorted to desk-based methods (Chitty, 2004, p. 126) that alienated many of their pupils.

Harriet, aged twelve, attends secondary school. The repeated changes affecting the teaching profession, its methods of teaching and its curriculum, have slowed down as naming and shaming practices have supposedly been effective in eradicating poor provision (Bevan & Wilson, 2013). Schools are beginning to find their own ways forward and teachers to teach more creatively, albeit within restrictive frameworks.

Data Collection

A biographical approach (Roberts, 2002), starting with an open invitation to talk about nature, presented participants with an
opportunity to articulate what nature stood for in their daily lives before any attempt was made to steer the conversation. However, this was an active listening process that saw meaning-making as a participatory practice (Holstein & Gubrium, 1995) and I continually monitored progress in a pragmatic attempt to ensure adequate coverage of the topic, introducing specific questions relating to experiences, contexts and to species when necessary.

The accounts relied on memory, specifically declarative memory, ‘where information is consciously recalled and can be articulated’ (Sutton et al, 2010, p. 211) and this will always be subjective and selective. Invoking memories suited the purposes of this study, because it allowed me to access the views of people of different ages and enabled me to tap into residual learning; that which remains long after the event. Memory is an active process ‘forging its pasts to serve present interests’ and ‘memory’s activities in the present belie the apparently simple, reified, and knowable past evoked by the call to remember’ (Radstone & Schwarz, 2010, p. 3). Although it can be selective, autobiographical memory seeks to be ‘coherent’ and to have ‘correspondence’ with reality (Sutton et al, 2010, p. 215), so what one is told is more likely to have validity than not; a reassuring claim.

The overall research approach was exploratory, an inductive one, as is common within qualitative research. I sought to collect spontaneous narratives mediated by questioning, and then examine and analyse the material, looking both within and across the interviews to establish what could be learned.

Data Analysis

The preliminary data analysis was carried out by creating synthetic narratives that brought the specific detail, the actions, events and happenings related, together in a single story (a pen portrait for each individual), as suggested by Polkinghorne (1995). Such portraits are essentially descriptive and lengthy so are not reproduced within this chapter. However, they can be and were analysed further to establish the individual’s view(s) of nature and to examine the insights they provided into the types of learning that each family member experienced and valued.
Discussion and Findings

The synthesizing process drew my attention to the worldviews of nature that each individual held. The processes of analysis involved a consideration of the relationship between individual worldviews and established Discourses. The evidence of individuals learning in distinctive ways enabled me to establish what forms of learning had a lasting (residual) impact.

A meta-analysis of all four portraits revealed the power of human agency, for each participant constructed a personal view of nature in keeping with social cognitive theory that ‘accords a central role to cognitive, vicarious, self-reflective, and self-regulatory processes’ (Bandura, 1989). It is noteworthy that the individual worldviews of nature did not directly reflect the dominant Discourses of times past or present but were individually constructed. I had collected a series of small d-discourses of nature, despite starting from a broader biographical direction and then asking specific questions. In this study, Bamberg’s (2014) polarities didn’t remain as neatly distinctive as the literature claims, but on reflection it may be that in engaging the participant in a dialogue it was I who breached the distinctive approaches. My initial intention had been to examine the significance of forms of learning and funds of knowledge, so my questioning had not been devised to ‘scrape out’ particular Discourses on nature. Indeed, I had neither studied them in advance nor thought to find coherent and individualized worldviews, so for me, their unanticipated emergence made them all the more credible. However, despite this blurring of boundaries, the notion of small d-discourses remains a useful concept for describing the findings from this research.

Modes of Learning and Meaning-Making

In terms of Foley’s categories of learning, no non-formal processes were evident and informal learning was only visible in occasional references to using books or watching television. Formal and incidental learning were commonplace, the significance of each varying between participants.
Data about schooling was both freely offered and specifically requested at interview.

Jo claims nature as the ‘most important subject’, one she studied formally as botany and zoology, but only at secondary school — where this involved dissection (which she disliked), classification and the naming of parts — inculcating a knowledge of Latin names and identification by species that Jo can still recall and use in everyday situations. Her range of contact with nature is broad. She can name many flora and fauna, including relatively rare species, and is familiar with wildlife that lives in unusual habitats. Her interest is both active and academic, for she talks about observing and collecting specimens, pressing wildflowers and taking photographs, but also about plant identification and collecting old textbooks about wildlife that present individual plants and animals in detail. Her knowledge remains current, suggesting that when a student commits to learning and the pedagogy is both demanding and interesting, knowledge and practices formally learned can be retained and recalled for ongoing use over the life-course.

However, for her daughter, Vera, schooling made little impact. Her learning about nature is clearly rooted in adulthood and often relates to her roles as parent and childminder. Discussing nature, she claims to learn in order to ‘pass information on to children’. Vera mentions examples rather than concepts, which again suggests that her learning has little formal basis. She admits she is ‘not good on names’ and her discussion of the environment is very generalized. Vera suggests we ‘keep it going as best we can’ and recommends ‘being very vigilant with our surroundings’, offering ‘keeping everything as it should be’ and preventing ‘damage by chemicals’ when pushed to add detail. Nor does she choose to look things up in books, although she will watch programmes on, say, volcanoes or glaciers (and *Countryfile*). Vera’s narrative reveals little evidence of residual learning from school, perhaps a consequence of a schooling system that offered her few opportunities for academic learning (Simon, 1999/1981). Frequently staff were only qualified to teach practical subjects: the domestic science, woodwork, metalwork intended to enable entry into vocational employment. Vera chose the first, domestic, option.
Nor does Stacey refer to schooling when talking about nature. She is dismissive when asked about individual species and never reads books about nature. There is a touch of excitement when she talks of exotic species encountered on holiday in Mexico, Cuba and the Dominican Republic; toucans, dolphins and palm trees. These are still unusual holiday locations and may evidence educational influences as Stacey studied Tourism at college after leaving school at sixteen. She gets annoyed at ‘how humans treat nature, leave litter, not caring for it or tidying up for ourselves’ and states very strongly that nature was ‘here before us’ and it matters for survival: ‘it feeds us, keeps us going’, ‘we eat off the land — what nature produces’. It is possible that these opinions have a formal origin, as residual learning from schooling, but overall the passive learning processes then practiced in education seem to have made little lasting impact.

Harriet is still at school and appears to enjoy formal learning. She can recall what she has studied and explain why it matters. Her primary school offered opportunities to explore woodland and pondlife, and to learn names for leaves, trees and fossils. Harriet talks at length and has clearly retained a good deal of information about a recent project on bees and their habitat, an active-learning programme involving visits to a nature reserve and contact with beekeepers. She is knowledgeable about nature, is curious, and is learning the names of species within a curriculum that also provides opportunities to get outside and experience nature. She names a range of species and often adds contextual information. Her language is peppered with technical terms, indicative of formal learning, and she demonstrates a broad knowledge of how the natural world is harnessed to support human life. She talks about habitat, crops and milling wheat; she uses insects as a collective term. Disliking ‘anything poisonous — sharp — anything that can harm you’ she gives a number of specific examples, demonstrating an ability to link the general to the particular. Harriet also mentions looking things up in books independently and sees learning as an ‘adventure’ rather than a task. Whether her interests will continue and deepen in adult life or whether they are foregrounded here because they relate to an immediate past is uncertain, but they are important now and learning is enjoyable. Active learning processes at least engage the student.

The narratives reveal very different levels of residual learning directly attributable to school experiences. Jo and Harriet clearly enjoyed formal learning: Jo retained significant school knowledge, for her learning was
memorable; Harriet’s recall of detail might reflect improved pedagogies over the intervening period, for the limited recall of Vera and Stacy reveal the inadequacies of education prior to and during its reform, through the introduction of a National Curriculum, student assessment strategies and a dedicated inspection service. Certainly, they both left school for vocational training at the earliest opportunity. However, it is important to be aware, too, that other — unacknowledged — factors will have influenced residual learning from schooling.

**Incidental Learning: Instances of Learning Through Everyday Life**

Data that informs this section derives from generalized conversation about childhood, life and interests.

Jo had the freedom to roam the countryside with friends and experience a range of habitats near to where she lived: seashore and dunes, pine woods, heathland, low-lying peat moss, and, a cycle trip away, the Pennine hills. She was encouraged to attend and submit entries to the local flower show and continued to press flowers throughout adulthood. As a Girl Guide and later with her husband and children, she enjoyed the outdoors and camping, and nostalgically recalls holidays in Scotland, a place she describes as her ‘spiritual’ home. She had many opportunities to live close to the land and get to know the wildlife. Her memories of this are vivid.

Vera knows about nature and mentions common species of flower, tree and animal, but largely in relation to her garden. She has a basic functional knowledge of growing things, how to care for them, the role of birds in disseminating seeds and bees in pollination, the rules of the countryside, knowing that there are plants ‘you aren’t allowed to dig up any more when you see them in the countryside’ and feeding birds ‘but never with bread’. She is aware of seasonal changes and the interdependency of natural life but explains this through examples, offering common soundbites when prompted to generalize. Perhaps this knowledge stems from watching *Countryfile*. Vera is recalling memories but only over a recent past; she is building a nature narrative from incidental learning and makes no mention of childhood experiences of the natural world.

When Stacy discusses nature, her knowledge is both local and exotic. The exotic stems from holiday travel; she twice chose to swim with dolphins abroad. She likes to be in nature, to be outside and to
be active but she, too, watches *Countryfile* on television. With her new boyfriend, who ‘scavenges for horseradish and wild garlic’, she learns to identify plants she can eat. She goes ‘swimming in the mill pond in warm weather’ and for walks with her father — who presumably knows about geology, as she talks enthusiastically about the Jurassic coast but is only incidentally interested in the fossils that are found there. But she has fond memories of how she ‘ran up and down hills on walks’. She talks of movement: ‘rivers, they flow’, trees ‘falling down’, storms as ‘nature out of control’, and spiders that ‘move very fast and bite; my friend was bitten’. The focus is on physical aspects. Even her comment about cows is about activity thwarted; she is irritated ‘waiting for them to cross roads’.

For Harriet horse-riding is a great passion, so, like her mother, she is enjoying nature actively. Riding also gives her freedom to explore the countryside with friends and to visit her (paternal) grandparents’ farm where she picks blackberries, ‘feeds cows with horseradish by hand’, sees ‘wheat being grown and harvested’. She likes learning about nature and being in it and, very strikingly, there is a strong aesthetic undercurrent to Harriet’s narrative that is often descriptive. She defines nature as ‘outdoors, wild’; learning metaphorically as ‘like a little adventure’. Lilies are not simply listed but described as ‘red, pink’ and the roses grow ‘wild and have their own designs’. The cows’ tongues are ‘hard and bumpy’ and horses are enthusiastically admired for their strength and build: ‘they have loads of muscle in them. How strong they are and how they jump. How they react differently’. Harriet rejoices in nature’s richness, it has ‘a lot of feeling to it — colourful and different’. Her local and practical knowledge is boosted by watching television; *Countryfile* is mentioned as regular viewing.

*Family Learning: Aspects of Transmission Through the Generations*

Mostly the data that informs this section was collected from incidental comments, connections made by the researcher rather than the participants. The sequential interviewing of family members, though this is limited to mothers and daughters, offers some insight into the funds of knowledge that exist to be passed down through the generations. This generational process captures knowledge transmission but also its absence, for there are opportunities for transfer that are not
taken, necessitating a consideration of what is not mentioned as well as what is talked about.

As the eldest participant, Jo has no one to corroborate her potential learning from elder family members, so we must rely on her own recall. It is clear that Jo’s parents valued education as they managed to pay to send their five children to ‘better’ schools. However, they were reluctant to do this beyond the compulsory level and insisted Jo could only ‘stay on’ if she achieved high grades, making education a privilege to be earned. We learned, too, that Jo joined her mother in submitting entries to local flower shows. We know that Jo had a formal and thorough grounding in nature subjects, collected specimens and could name many species: she had considerable personal funds of knowledge. When Jo was a mother, most family holidays were spent under canvas in the countryside, especially in the Scottish Highlands, a naturally ‘wild’ environment.

Yet there is little evidence that Vera learned about nature from her mother, Jo. She will have shared those family holidays in Scotland, but they form no part of her conversation. When she mentions trips, they are to entertain children; her own and later those she cares for as a childminder (a form of work that locates her within her own home and garden). She appears not to share her mother’s interests. Indeed, Vera’s focus on the garden and the domesticated could even be a reaction against ‘wild’ environments. She does value rural England — ‘if we didn’t have the countryside it would be a very boring place’ — but her contact beyond the garden wall is mainly indirect. Now her children are adult she is ‘done’ with the beach but with her husband she is happy to ‘drive through woods’, taking ‘country routes if we can’; it is he who goes for long walks. However, Vera learns from television documentaries and it is she who starts a tradition of watching Countryfile, a programme liked by both Stacy and her daughter Harriet. Vera is aware of the countryside code (how to behave appropriately in the countryside to protect other living things) but she relates more to gardens.

Stacy scarcely mentions gardens. She expresses surprise that a palm tree her parents bought at a garden centre (something she has seen in its natural habitat abroad) is now ‘big as the house’ and states that she has no houseplants as they ‘die too easily’. We saw her annoyance when people leave litter, and here she is possibly echoing her mother’s teaching of the countryside code. We have seen that Stacy’s knowledge is a mix
of the exotic and the local and there is evidence that she learns from others — she recalls walking with her father and scavenging with her boyfriend — but little evidence that she has learned about nature from either mother or grandmother. There may well be a mismatch between Vera’s love of the domestic and Stacy’s liking to be active within nature, possibly just evidence again of an individual developing a personal worldview.

With Harriet, the emphasis is on school where she enjoys active forms of learning, but this is the reality of being a schoolgirl. Similarly, when we glimpse her mother’s influence, this could be because she is still a minor. For instance, when Harriet mentions the palm tree, her interest could be independent or due to her mother. She also talks about rainforests, and this could stem from school, books, or her mother’s interest in the exotic. At best, such connections are incidental. Like Mum and Grandma Vera, Harriet watches *Countryfile* but unlike them she likes ‘discovering’ new ‘plants and things’ and will choose factual books on nature in the library to find things out for herself (like Great Grandma Jo). Through horse-riding she is actively enjoying nature, like her mother, who supports this interest by paying for her lessons. Harriet also benefits from visiting her paternal grandparents’ farm. This sits outside of the mother-daughter relationship, as her parents have separated, but is still evidence of learning across generations.

Overall, the interviews do not elicit many instances of shared family practices, but I cannot claim that they do not occur, only that they are not foregrounded or easily traced within the data. They may, of course, relate to topics other than nature. A shared interest in *Countryfile* is passed down through three generations but the only viewpoint common to all four is a dislike of spiders, and this could be learned or individually acquired. Overall, this lack of shared practices lends some support to the view that the relationship with nature is individualized.

**Individual Constructions of Nature**

On completing the analysis, I was struck by the very different ways that each family member related to nature, subsequently realizing that this was suggestive of active knowledge formation in a social cognitive sense (Bandura, 1989). Learning was influenced by schooling, experience and family practices but each individual presented a nature narrative that was individual and resonated with a particular way
of thinking. Essentially, each individual had developed a personal worldview of nature, although reactions to school, everyday life, and family interests surely mediated these.

When asked why nature matters, Jo talks about the survival of the planet, the role of trees in the oxygen cycle and the significance of the food chain. This is a knowledgeable standpoint; hers is a scientific discourse involving taught and self-taught knowledge of names, parts and purposes, as well as rarity, causes, connections and consequences.

Vera’s relationship with nature is habitual, it is ‘part of our way of being’. It is bound up in her garden and with making sure that children treat it with respect and don’t dig up plants or snap twigs off trees. It is essentially a domestic discourse.

Stacy, however, describes nature in terms of activity and movement, something to be ‘in’ and engage with bodily. She presents a physical discourse: perhaps in reaction to the increasingly formalized and sedentary style of learning she experienced in school.

Harriet’s relationship with nature is complex; partially utilitarian (‘bees for honey, trees can produce wood, gives animals a home — habitat’); partly something to be studied but also something to be actively explored. Harriet’s nature narrative is unique within the family because of the language that she uses. This is descriptive even when it is factual, and she continually demonstrates her admiration for the natural world and aesthetic appreciation of its assets in the way that she talks about it. So, again, we have a worldview of nature that cannot be said to derive directly from either the education system or the practices within the family. Nature is ultimately something pleasurable and worthy of observation. Hers is predominantly an aesthetic and emotional discourse.

Classic and Personal Worldviews

There is little evidence that the participants’ views are shaped by the prevailing Discourse on nature. Environmental crisis is scarcely raised in the interviews: Jo discusses a few specific problems, and Vera briefly repeats commonplace views. At most, Stacy refers to the rules of the countryside, defining her caring as everyday acts like clearing up litter, and Harriet makes no mention at all.

The Arcadian view that humans should live in harmony with nature is implicit in all the individual stories; it is explicit in Vera’s view that we
‘keep it going as best we can’, in Stacey’s that it was ‘here before us’. There is also an understanding that nature supports human life in comments such as Stacey’s ‘we eat off the land’ and Harriet’s mention of habitat, crops and milling wheat. However, these are far from Imperialist; there is no suggestion that humans should dominate nature. Arguably, Vera’s domestic discourse is slightly exploitative: in that gardening involves a shaping of nature to the gardener’s ends. Stacy’s enjoyment of being in nature, swimming with dolphins, is again a form of ‘using’ nature for one’s own purposes but to describe this as exploitative would be an overstatement.

There is no sign of religiosity; neither echoes of the ancient belief in the Order of Nature with a deity in supreme authority (Glacken, 1991) nor of its revival as Creationism (Numbers, 2002). This is scarcely surprising as teaching creationism is banned in the UK, while the theory of evolution is mandatory (Hafiz, 2014), although there are claims that some faith schools are flaunting this legislation (Mortimer, 2016). The closest comment is Jo’s claim that Scotland is her ‘spiritual home’ but this is a way of justifying her attachment rather than a reference to religion or divine order.

Jo’s interests in labelling and species align with the long-practiced Classificatory discourses (of John Ray in the seventeenth, Carl Linnaeus in the eighteenth, and Charles Darwin in the nineteenth centuries) (Pyenson & Sheets-Pyenson, 1999) but she was only ever ‘learning and using’ rather than ‘creating’ hierarchies and connections. Her scientific discourse is in keeping with the modernist views that prevailed when she was in formal education.

It is Harriet’s viewpoint that most clearly fits into a bigger worldview, for, making allowances for her immaturity, her aesthetic pleasure in nature has something in common with the Appreciative viewpoint (Glacken, 1991). However, her views are expressed in terms of a more robust physicality, unlike the poetic, artistic and musical outpourings of the mid-eighteenth to mid-nineteenth centuries. Also, my interpretation is based on her choice of examples and ways of describing things; she is neither engaging in creative activities nor reacting to external changes within society of the scale of the industrial revolution, as were the Romantics; the circumstances differ.

What is interesting about this research is the evidence that each individual, whatever her education and role in the family, unconsciously
builds a personal worldview of nature, suggesting that this construction is an embedded process. It is me, the researcher, who listens to the narratives and identifies the different viewpoints through ideas expressed in a variety of ways and contexts. It would be an overstatement to claim that the research reveals a common ‘passionate love’ of ‘all that is alive’ (Fromm, 1973) but there are indications of an affiliation to nature in keeping with Wilson’s work set out in *Biophilia* (1984): nature matters, and this appears to be intrinsically the case.

**Conclusions**

On reflection, the ‘recall’ nature of the biographical approach may predispose the participants to create coherent worldviews. In reality, however, the conversations were too fragmented to allow auto-analysis during the actual interviews, so this is unlikely. The participants were being asked in the present day to talk about nature throughout their lives, and it may be that their current concerns are shaping the way in which they create their contemporary accounts. Perhaps they already hold personal worldviews of wider import and these are extended to embrace their views of nature? Jo describes her school days with great nostalgia and there is evidence that her interest in collecting and naming species continued into adult life, so her ‘scientific’ discourse may have greater application. For Vera, the family, home and garden, were all-important, so a broader ‘domestic’ discourse makes sense, and for Stacy being active is evidently fundamental to her view of nature, but also a lifestyle choice. Harriet is still learning and growing and may be developing an interest in the expressive arts that will stay with her for life — we cannot know. I wonder, could this small-scale study actually be capturing the process of discourse formation as it happens?

Surely at an individual level the process mirrors major Discourse formation in society, where the dominant needs and interests that prevail at any time, as well as a collective set of shared values, shape the social frameworks that become embedded. If we consider similar processes operating within contemporary society, it is very clear that discussions about nature arise in connection to the prevalent Discourse of environmental concern, a Discourse that is increasingly one of ‘sustainability’. Yet such Capital-D discourses are not reflected
significantly in the interview material either directly or as associated small-d discourses. The participants are agentive, creating their own understandings, their individual discourses, rather than echoing the major Discourses that prevail in the literature and in real life in relation to nature.

In terms of engaging future generations to adopt conservational measures, this ‘individualization’ process implies that choice and freedom are important. It may be better to make the natural environment accessible to people to enjoy as they choose, thereby giving them a ‘stake’ in their local communities, than to proselytize about the crises that surround them. In schools, lasting and enthusiastic learning was evidenced from two contrasting pedagogies: Jo’s formal study, by teaching the fundamental physical processes and the names and terms, enabled her future and ongoing application of what she had learned; Harriet’s active project work generated an interest in nature and its systems, enabling deeper learning. Probably both approaches have a role to play in future educational practices.

Such insights are neither exceptional nor unique but might need to be regularly restated in a neoliberal culture where success is measured statistically as improvements to narrowly defined and short-term outputs.

References


4. Understandings of the Natural World from a Generational Perspective


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