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Narrative: An ontology, epistemology and methodology for pro-environmental psychology research

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ABSTRACT

The actions of individuals are recognised as crucial in reducing energy demand and shifting people towards sustainable energy sources. Much of the work that has occurred within environmental psychology has been built upon a social cognitive paradigm, which attempts to explain the drives, forces and processes that explain and determine individual behaviour. Despite the volume of this work, the promotion of pro-environmental behaviour has not achieved broad transformations in energy conservation behaviours. Recently, researchers working in the field of pro-environmental research have started to draw on narrative in their work as a framework to (re) integrate individuals into their historical, social and cultural settings. However, this work, when applied to energy conservation, remains in its infancy. This paper adds to the growing literature that is increasingly asserting the key role for narrative in the field of pro-environmental psychology research. The paper articulates the foundations of the narrative turn from its development within literary theory to its adoption by the social sciences, with particular reference to psychological theory. This paper provides a review of the ways in which taking a narrative perspective can offer rich insights into complex phenomena, as well as potential ways to reconceptualise ways forward for energy research.

1. Introduction

The need to curtail carbon-intensive behaviours in order to reduce greenhouse gas emissions and address the complex challenges posed by climate change is now well established at international, national and, increasingly, local levels. Although infrastructure can be updated, public policies drafted and new technologies deployed, these often fail to realise optimal energy reductions owing to the complex array of human factors and social practices involved [e.g. 1]. As such, addressing the unsustainable use of energy by individuals (better known as achieving behaviour change) has become a key area of focus for both policy-makers and researchers. The field of pro-environmental psychology, a discrete area of the broader domain of environmental psychology, has a long history of exploring and articulating the drivers, processes and motivations involved in shifting people's behaviour, in varying contexts, to being more environmentally sustainable [2]. A significant amount of pioneering work in this area can be traced back to the 1970s, largely as a reaction to the fears over energy security at the time [2]. However, in the last couple of decades research in this area has grown, as have the areas of applied focus. Work within pro-environmental psychology has explored a number of discrete areas including attitudinal change [e.g. 3,4], habitual change [e.g. 5], social norms [6][e.g. 6], feedback and goal setting [e.g. 7,8] and so on.

Despite the longevity of this work, it can be argued that the successes of these activities have not been realised and applied on a wide scale, with notable exceptions such as the use of social norming in hotel towel use [9] and the work on social comparisons that underpins the work of Opower in the United States.

Part of the reason for the limited societal impact of many pro-environmental psychology studies may be the inherent individualism within many of these works. Such works have tended to focus on mental processes, attitudes and decision-making without sufficient reference to an individual's place in wider society, as Brown [10] has asserted:

> "We all strive to fit in with our peers and follow the many complex and hidden rules of behaving in the society in which we live. This is why harnessing the power of others (and more specifically our desire to be like others) is so important for energy efficiency"

Many of the models and theories within pro-environmental psychology developed predominantly within the United States at a time when there was a huge increase in the number of studies embedded within social psychology, which was, at the time, dominated by *social cognition*. Such an approach channels Cartesian thinking, which dominates Western models of psychology and seeks to measure, record and explain [see 11], treating the person as a processor of information. At the centre of theories within the social cognitive paradigm is the belief

that there is a core essential self that has an objective and universal reality, with cultural, historical and social factors enabling the 'display' of this self but not taken to be inextricably interwoven with it [12]. Largely owing to the dominance of these approaches, Gough and McFadden [13] argue that individuals in Western societies have become used to thinking about themselves as in possession of some unique 'core' personality, ultimately quantifiable and known as either one thing or another. Such identification appears to help to predict what individuals would do in certain situations and what tasks or situations are unsuitable or incompatible for such individuals. The self, conceived from this position, provides conditions that remain constant throughout situations, making no allowances for important social or cultural influences [13].

The notion and assertion of the self as a core and essential entity have been at the centre of a debate across a number of disciplines over the years. Goffman [14] argues that the self, or rather the presentation of the self, is a managed performance that is tailored to certain situations in order to fulfil certain societal and cultural norms and obligations. Rather than a self that is stable across situations and time, writers such as Goffman [14] posit a self that is "…flexible and dynamic, adopting and discarding 'multiple roles' as the situation demands – a fragmented rather than a unitary self" [13]. Similarly, Burkitt asserts that "…human individuals, embodied persons become identified within the multiple relations in which they are located and which, as agents, they change through their mutual interactions" [15]. Writers such as Goldstein and Rayner reject the existence of a 'core', stable and 'essential' self and assert that the self "has no permanent essence but continuously reinvents itself" [16].

Thus, researchers and writers within psychology have had to look to other disciplines within the social sciences such as sociology, anthropology and philosophy in order to attempt to contextualise the human self. One of the areas psychology has drawn upon and applied across a whole range of research areas is narrative. Although in recent years such ideas have been increasingly explored in the context of climate change adaptability and policy development [17–19], the application of narrative within pro-environmental psychology remains in its infancy. This essay reviews the development of narrative approaches within psychology and applies this to the growing literature base that recognises the key role narrative can play in supporting pro-environmental research and, more specifically, in understanding the behaviour of people. The essay is structured in three parts. Sections 1 and 2 articulate the foundations of what is known as the 'narrative turn' from its development to its adoption within psychology. Following this, Sections 3 and 4 outline the functions a narrative approach has. Section 5 looks at how narrative is accommodated within the research process, before the essay is concluded in Section 6. The literature on narrative is extensive and it is not the intention of this essay to review all permutations of narrative theory. Instead, the essay is focused on delineating the limitations of the empiricist approach to social cognition, which underpins much of pro-environmental psychological theory, and advocating the benefits approaches grounded in narrative can have for understanding complex reasoning and behaviours.

2. The adoption of narrative within psychology

Narrative approaches have been applied diversely through a vast number of distinct fields. These include history [20–22], philosophy [23], sociology [24,25], anthropology [26], education [27,28], social work [29,30] and psychology [31–33]. However, the foundations of the broad area that is now referred to as the narrative approach in psychology have their roots mainly in writings within literary theory [34]. A considerable body of work now exists in relation to policy-making and policy analysis [35,36][see,for example,35,36], with an ever-increasing proportion of this work looking at climate change or environmental research [17,19]. The turn to narrative ways of understanding human action and experience has its theoretical place within

what has generally been termed 'the interpretative turn' in the social sciences [37,38].

When adopted by psychology, the interpretative turn was a way in which certain writers such as Bruner [32] intended to 'return' to a theoretical position of understanding individual psychology that had been seen to be overwhelmingly dominated by mechanistic metaphors [39] and the normative 'cognitive revolution' [32]. According to Bruner, the cognitive revolution, which developed from the 1950s alongside the evolution of the information communication technologies, was an attempt to understand human actions and psychological processes as being analogous to those of a computer, using as its base a computational information-processing metaphor to explore how individuals make sense of their world [32]. Similarly, Sarbin argues that the dominant worldview in modern Western civilisation relies on the 'root metaphor' of mechanism [39]. He argues that by drawing on such a metaphor we come to understand and explain our lives in terms of 'drives' and 'forces' that determine the causes of behaviour that underpin human experience. Such mechanistic and computational approaches are empiricist approaches, and, as Milnes outlines, these:

> "…rely heavily upon the realist assumption that individuals, cultures and events exist independently of our perception and interpretation of them and can therefore be studied 'objectively' using methods of inquiry originally developed to aid in the study of objects and forces in the natural and physical world" [40]

Although such empirical positivist approaches are arguably, as Sarbin claims, the dominant viewpoints in psychology [39], numerous arguments highlight their possible limitations and, in turn, outline the contribution that alternative interpretative approaches, such as narrative, can make. Indeed, Bruner outlines how William Wundt, who heralded the idea of the psychological laboratory, commented in his later life how:

> "…constricting the new 'laboratory' style could be, and in formulating a new 'cultural psychology' urged that we embrace a more historical, interpretive approach to understanding man's cultural products" [32]

Bruner argues that human beings understand their world in two distinct ways, defined as the 'paradigmatic mode' of thought and the 'narrative mode' of thought [32]. The paradigmatic mode of thought is exemplified by scientists and logicians, who seek to determine cause-and-effect relationships and develop tightly reasoned analyses, logical proofs and empirical observations. In this model, Bruner proposes that human beings attempt to understand the world by establishing and maintaining unambiguous objective truths [32]. In this way, hypotheses and theories can be tested and demonstrated to be proved or disproved. The 'paradigmatic mode' of thought, however, "…is not able to make much sense of human desire, goals, and social conduct" [41]. In contrast to scientific logical reasoning, McAdams proposes that human events are often ambiguous and cannot be reduced to such tightly reasoned analysis devoid of rich contextual landscapes, as human stories describe their experiences in words that often "…mean more than they can say" [41]. Bruner sees the narrative mode of thought as enabling the organisation of everyday interpretations of experiences, events, places, people etc. in story form. The challenge for contemporary psychology, according to Bruner, is to understand this 'everyday' form of thinking [32].

In understanding human experience in the social sciences, utilising narratives did not entail an immediate turn away from empiricism, such as those approaches characterised by classic laboratory research. Instead, there was a gradual movement in the kinds of approaches used within the social sciences in order to qualitatively explore individual and social experience [38]. The utilisation of narrative within qualitative social science research can be traced back to the works of the Chicago School [42,43]. However, stories and narratives in these ethnographic approaches were still firmly entrenched within a realist

paradigm, which aimed to document realistic descriptions of events occurring in urban life [38]. Such descriptions were intended to draw the readers' attention towards what was 'really' happening in such situations and environments. Rather than the constructionist tenet of narrative theory, which holds that language is a tool used to produce meaning, not simply a means of expressing 'real' experience [44], language was merely a medium for telling the readers what was more or less an objective truth. As such, language was seen as transparent, which reflected "…stable, singular meanings" [38]. Riessman goes on to claim that those like herself who engage in critique with the realist position present a challenge to these views of language and knowledge as transparent and 'real', a position forming the philosophical underpinnings of 'narrative knowing' [45] in the social sciences:

> "Sceptical about a correspondence theory of truth, language is understood as deeply constitutive of reality, not simply a technical device for establishing meaning. Informants' stories do not mirror a world 'out there'. They are constructed, creatively authored, rhetorical, replete with assumptions, and interpretive" [38]

Clandinin and Connelly offer the term 'narrative inquiry' to encapsulate the approaches taken within the human and social sciences that explore different levels of narrativity between individuals and within societies and cultures [28]. In the main, much of the development of narrative inquiry in the social sciences has occurred within sociology [38] and anthropology [46]. In comparison with these disciplines, the use of narrative inquiry within psychology remains less developed although this is now increasing and can be found to varying degrees in clinical psychology, counselling psychology and psychotherapy, where there is a strong tradition of using narrative in therapy settings [47–49]. Similarly, writers within health psychology have utilised a narrative framework in exploring how people experience illness and ill health and how they make sense of their lives through the stories they tell [50,51]. The use of narrative in work allied to environmental psychology is increasing and has often been undertaken in combination with practice theory derived from sociology [52,53].

Taking a historical perspective, the development of narrative methods within psychology can be seen to stem broadly from two positions, namely, humanistic approaches [54,55] and what Bruner refers to as the "cognitive revolution" [32]. Crossley states that humanistic approaches are characterised by their use of qualitative methods, interest in the depth of human experience, and emphasis on "…'experience and experiencing', 'uniqueness', 'meaning', 'freedom' and 'choice'" [33]. Crossley argues that humanism retains elements of realist thinking. Although humanistic approaches acknowledge the existence of an autonomous self capable of making informed choices, that self is presented as 'stable' and 'knowable' independently of language and context [33]. Bruner describes the cognitive revolution as "intended to bring 'mind' back into the human sciences after a long cold winter of objectivism" [32]. According to Bruner, the attraction of information technologies for psychology resulted in a 'dehumanised' discipline, where information processing became the "model of the mind" [32] and 'processes' within 'virtual minds' in computers and 'real' minds could be seen as synonymous and understood in the same way. In the mid-1970s, the move from these positivistic approaches to the interpretative philosophies and works of social scientists such as Geertz [26,46] and Rabinow and Sullivan [56] sowed the seeds of the interpretative approach we see today. The interpretative movement was characterised by a renewed interest in meaning and the recognition that human beings have the ability to reflect on their experiences and the world around them. In this way, culture and cultural practices came to be reframed as texts [46]. Riessman suggests that it was this movement towards qualitative and discursive approaches that, approximately a decade later, and somewhat behind most of the social sciences, brought about a further shift in the field of psychology, which became known as the narrative turn [38].

3. The narrative turn in psychology

The definition of what constitutes narrative is something that widely engages researchers and writers within the areas of narrative inquiry and narrative philosophy. However, Barthes provides a comprehensive outline:

> "The narratives of the world are numberless. Narrative is first and foremost a prodigious variety of genres, themselves distributed amongst different substances – as though any material were fit to receive man's stories. Able to be carried by articulated language, spoken or written, fixed or moving images, gestures, and the ordered mixture of all these substances; narrative is present in myth, legend, fable, tale, novella, epic, history, tragedy, drama, comedy, mime, painting…stained glass windows, cinema, comics, news item, conversation. Moreover under this almost infinite diversity of forms, narrative is present in every age, in every place, in every society; it begins with the very history of mankind and there nowhere is nor has been a people without narrative. All classes, all human groups, have their narratives…caring nothing for the division between good and bad literature, narrative is international, transhistorical, transcultural; it is simply there, like life itself" [57]

Research within the narrative turn can encompass a diverse range of approaches, including, for example, autobiography, autoethnography, biography, personal narrative, life history, oral history, memoir and literary journalism. The role of language within narrative approaches varies depending upon the epistemological position of the researcher or research environment, with theoretical positions tending to be located somewhere on a constructionist–cognitive continuum. Similarly, researchers and writers in psychology vary in the extent to which they see narratives as either located in the minds of individuals (i.e. the constructivist paradigm), such as Schank and Abelson [58,59], or created in discursive practices (i.e. the constructionist paradigm), for example, Potter and Wetherell [60]. Milnes identifies the difference inherent in the way in which narrative is conceptualised and suggests that:

> "…"strong" cognitive approaches and 'strong' social constructionist/discursive approaches are however, probably best seen as two ends of a continuum (rather than a strict dichotomy) with many narrative researchers positioning themselves somewhere between the two" [40]

Regardless of the epistemological positioning of narrative in psychology, the fundamental commonality remains that those working within narrative inquiry agree that narrative is pervasive in human life. However, Sarbin holds that the term narrative can be seen to be synonymous with the more familiar term story [39], a position also held by Polkinghorne [45]. After excluding "sensory physiology", Sarbin claims that all psychology is grounded in narrative [39] and that "the essence of human thought can be found in the stories we use to inform and indoctrinate ourselves as to the nature of reality" [61]. Mair [47] supports Sarbin's [39] assertion and says:

> "Stories are habitations. We live in and through stories. They conjure worlds. We do not know the world other than as story world. Stories inform life. They hold us together and keep us apart. We inhabit the great stories of our culture. We live through stories. We are lived by the stories of our race and place. It is the enveloping and constituting function of stories that is especially important to sense more fully. We are, each of us, locations where the stories of our place and time become partially tellable" [47]

Others prefer to see stories as just one sub-class of narrative, such as de Beaugrande and Colby [62] and Brewer [63]. However, it is the production of a story, which is both temporal and logical, that is argued to be a method of sense-making for the individual [38,39,64]:

> "A story is a symbolised account of actions of human beings that has

a temporal dimension. The story has a beginning, middle and an ending [or as Kermode (1967) suggests, the sense of an ending]. The story is held together by recognisable patterns of events called plots. Central to the plot structure are human predicaments and attempted resolutions" [39]

What constitutes a 'story' has in itself engaged many researchers. Definitions have ranged widely and include those given by Polanyi, who proposes that a story must relate to an event in past time and that a story must have a point [65]. Bruner proposes five vital components for a story to be seen as such, which comprise an actor, an action, a goal, a scene and an 'instrumentality' [31]. However, according to Bruner, a *good* story contains a sixth component, that of 'trouble', as a story worth telling rests on the tension and imbalance that lies between these components [31]. Other researchers have focused upon the grammatical structure of a story, and certain writers [66–68] have become known for their structural concerns with narratives.

According to Burck, a great deal of attention has been focused upon the identification of "dominant societal discourses" or the "social organisation of talk" and what this talk enables to be experienced, acknowledged or ignored [44]. In particular, in narrative theory Mankowski and Rappaport developed the notion of the dominant cultural narrative [69]. Dominant cultural narratives are stories about persons, places or things that have consistent storylines and thematic content across individuals and settings and are transmitted through images in the media and conversation. These dominant cultural narratives are "… thought to reflect societal views about particular people, places, or things" [70]. As such, it is generally considered that "identities cannot be picked up and lived at will" [44]. Rather, our positions within the cultural stories available are said to shape the personal stories that we develop about our lives and experience [44]. Thus, people live within "storied landscapes" [28], and narrative theory contends that this allows knowledge to be transported and ways of knowing to be constituted [17]. Paschen and Ison apply this concept to climate adaptation by linking the notion of cultural narratives to the development of personal stories as a way in which groups of people understand their past as a determinant of possible future action [17].

4. Narrative as an 'organising principle' for human life

Kirmayer argues that narratives of the self serve a variety of functions:

"They order the inner world of the self, creating a sense of coherence and point of view from which to describe and reason about the world. Narratives of the self also serve rhetorical purposes, providing us with a story or biography that constitutes our social personhood as something meaningful to and valued by others" [71]

Kirmayer goes on to suggest that these narratives are drawn from "cultural schemas", where personal narratives serve to explain personal transformations and experiences "strung along a temporal trajectory structured by causal theories, fate and happenstance" [71]. In contrast to a literary narrative, however, personal narratives are often unfinished, allowing the individual story-maker to anticipate their future. As a result, depending upon how the individual has structured their story, this can lead to a future narrative arc that could frame future events, for instance, as hope or despair [71]. It is at this intersection with ideas of transition and change that researchers exploring pro-environmental and energy practices have begun to argue for the value of adopting narrative approaches [52,53]. These are periods rich with complexity, and people strive to make decisions and behave in ways that remain in keeping with their personal script. In the context of energy, such transitions occur upon a move to a new dwelling, the installation of a new heating system, engagement with new metering technology, or a change in the price of energy. These events provide unique opportunities to engage with people to explore how the

decisions they are making are being made and how they are making sense of these transitions. McLeod asserts that one of the central functions of a story is that it offers 'guidelines', 'a script', or ways that one should behave in certain situations [49]. It serves to convey a sense of moral order, as stories indicate what was right or wrong in a given situation. McLeod offers the example of the religious story of the Good Samaritan, which instructs the listener/reader how to behave when someone is in need [49]. Such parables are told in order to make a particular religious, ethical or moral point. Similarly, McAdams claims that conceptualisation of a personal myth provides each person with an identity that "[illuminates] the values of an individual life…a sacred story that embodies personal truth" [41]. Here, an individual has a template by which they perform their lives and act according to their personal truths. Kirmayer argues that our stories are "containers and conveyors of moral truth" [71], which entail a complex system of ethics and moral application. Similarly, Coffey and Atkinson [72] agree with Czarniawska [73] and Gabriel [74] that stories and legends are often told in a variety of settings in order to demonstrate what not to do and detail possible consequences if mistakes are made or rules are not followed. McLeod, however, is keen to reinstate the notion of interpretation in his use of 'scripts' to elucidate what he understands as narrative. He says that these narratives are not literal scripts that determine everything that an individual will do. Rather, the scripts serve as guides that can be assimilated with the individual's own point of view [49]. In the context of energy such scripts can also be developed by community groups or communities of practice that one identifies with. From this viewpoint, membership of local communities that directly or indirectly 'champion' energy efficiency can contribute to increasing energy efficiency by offering an alternative script for their members. This scripting thus goes beyond a more unidimensional concept of social norms.

According to Murray, the prime function of narrative is its ability to bring order to disorder. In doing so, individuals provide themselves with an opportunity to produce a coherent account of their lives [75]. By organising the events, people, places and happenings in their lives, people are able to make sense of a world that Ricoeur asserts is constantly in flux [76]. In order to explain how people make sense of their world, Sarbin proposes what he calls the "narratory principle" [39]. This is the idea that human beings "think, perceive, imagine, interact and make moral choices according to narrative structures" [33]. Sarbin argues that when a number of pictures or descriptive phrases are presented to a person, they 'automatically' begin to construct a story that renders the unconnected images or phrases meaningful in some way, thus attempting to bring coherence to their world [39]. According to Becker, the use of narrative is particularly pronounced when people try to make sense of 'chaotic' events and disruptions to routine such as personal problems, financial problems, health problems and environmental challenges [77]. Converting these events into a story provides a means by which order can be restored [75]. Integral to the work that those involved in what Riessman calls the "life story tradition" [38] is the focus upon the way that narratives enable human beings to organise their experience into a coherent whole, and the primary focus is therefore on the concepts of plot, temporality, sequentiality and connectivity.

Sarbin argues that the role plot plays in narrative structure is vital [39], with researchers such as Polkinghorne focusing their interest upon the way in which 'emplotted' episodes are held together and given meaning by the use of time and sequence [45]. Attempts have been made to try to identify and classify the genres of plots that are used in making sense of events and experience. For example, White suggests four major plot structures: tragedy, romance, comedy and satire [78]. McAdams saw certain plotlines that occurred repeatedly in the life stories in his research, such as creating order from chaos, fighting a battle, taking a journey and enduring suffering [79]. Similarly, Frank suggests a number of narrative structures that appear in accounts of health and illness, such as narratives of restitution, chaos and quest [51]. As an example, Janda and Topouzi draw on the notion of the

quest plot to outline its applicability within the context of the development of energy policy [19]. According to Crossley, rather than an individual being portrayed as a passive information processor, the narrative principle invokes a more humanistic notion of the self, whereby an individual becomes active in their construction of their world by being a teller of their stories, which contain heroes and villains, plots and images of actors within the story engaged in active dialogue [33]. Sarbin therefore claims that engaging with the notion of the narrative principle not only helps us to understand our past, it also allows us to grasp our present and anticipate our future [39].

Writers within a more constructionist tradition may question the assertion made by McAdams that "Human beings are storytellers by nature" [41]. Narrative and story appear prolifically in human life to greater or lesser extents depending upon the cultural milieu. Indeed, Paschen and Ison have postulated that the very term *narrative* has become popularised through the media and marketing, and in the context of pro-environmental work it refers to how information is "…framed or 'storied', strategically in order to achieve broadest possible credence across a variety of stakeholders" [17]. McAdams, however, goes on to assert the historical endurance of storytelling from Stone Age humans gathering around a campfire to modern-day humans understanding their place in their world [41]. McAdams continues to explain that stories are not simply 'chronicles' in the way that a 'factual' account of a meeting would be if minuted. Rather:

> "Stories are less about facts and more about meanings. In the subjective and embellished telling of the past, the past is constructed – history is made. History is judged to be true or false not solely with respect to its adherence to empirical fact. Rather, it is judged with respect to such narrative criteria as 'believability' and 'coherence'" [41]

Ricoeur emphasises the role that time plays in the way that human beings organise their experience of the past [76]. According to Ricoeur, an individual's personal experience of history is composed of a series of stories that culminate in an idea of time and temporality [76]. As McAdams asserts:

> "When we comprehend our actions over time, we see what we do in terms of a story. We see obstacles confronted, and intentions realised and frustrated over time. As we move forward from yesterday to today to tomorrow, we move through tensions building to climaxes, climaxes giving way to denouements, and tensions building again as we continue to move and change. Human time is a storied affair" [41]

It is therefore widely held that narratives serve to organise human experience, and, as Sarbin and others [39,45,65,80] have claimed, a narrative must have a beginning, a middle and an end. The sequencing of narrative accounts has motivated some to suggest that narrative accounts are sequenced chronologically [66], others claim that thematic sequencing occurs [81] and others have advocated a position similar to cause and effect termed consequential sequencing [82].

Polkinghorne also writes about how individuals organise their experience and argues that meaning is intertwined with both temporal and sequential connections. What we are actually asking when we ask what something means, Polkinghorne asserts, is "…'how does it fit into the whole?' or 'what are its connections and relationships to other concepts, events or experiences?' " [45]. These connections, relationships or 'meanings' are not only individualistic; they are also rooted in and transferred through cultures in the form of myths, fairy tales, proverbs and stories and pictures in the media. Polkinghorne describes the process by which individuals assemble individual events into a whole as 'narrative ordering':

> "The ordering process operates by linking diverse happenings along a temporal dimension and by identifying the effect that one event has on another, and it serves to cohere human actions and the events

that affect human life into a temporal gestalt. As there are a limited number of gestalt operations that produce recognisable perceptual configurations, so there are a limited number of narrative structures that produce coherent stories" [45]

The need to be coherent in our lives and make sense of our experiences in the form of a meaningful whole is seen by Kirmayer to instigate dramatic changes in how we see and/or describe our lives:

> "Everyday stories of the self are mutable and constantly shift as they are told and retold in different settings. They are re-written to reduce dissonance and to conform to our current situations, values, goals and commitments. Major life events may lead us to rewrite whole chapters of our autobiography to justify a particular course of action or rationalise outcomes we never foresaw. Memories, in turn, are shaped by these narratives" [71]

Encouragingly for those in the business of behaviour change, Murray asserts that all narratives in life are provisional, as they are subject to change as new information or a new interpretation becomes available to people. "It is not that the narrator is trying to mislead the listener but rather, from a more extended perspective, different pieces of information become available for the story" [75].

5. A critique of narrative coherence

In common with many theorists in the preceding section, Gergen suggests that "Rather than see our life as simply 'one damn thing after another', we formulate a story in which life events are systematically related, rendered intelligible by their place in a sequence or unfolding process" [83]. McLeod advises caution in assuming that narrative coherence is an achievable end point. He identifies three assumptions implicit within arguments that emphasise a coherent self: firstly, that such a thing as a unitary self exists; secondly, that it is somehow desirable to achieve a coherent sense of self; and finally, that the self is bounded and autonomous [49]. Andrews, Sclater, Squire and Treacher take a similar view on issues of coherence, asserting that "Narratives come in many kinds: they are contradictory and fragmented: there is no such thing as a coherent story" [84]. According to Murray, the need to restore a sense of order in our lives is particularly pronounced in Western society [75]. Western society, according to Becker, is dominated by linearity and rationality, where we try to become consistent and both see our actions and present ourselves as logical and reasonable [77]. Although intertwined with a 'Western' perception of self, Mair demonstrates that it is possible to reconceptualise individuals within 'Western' society as representing multiplicity and a multiple-storied self or a "community of selves" [47]. In this sense, people in the context of energy can be understood as being both energy-efficient and inefficient with energy, in the same way as people are recognised as plurivocal or polyphonic. Such a dialogical analysis explores identities from a polyphonic perspective, recognising contradictions and simultaneities and the co-constructive nature of our identities. This approach makes sense within the context of an "increasingly interconnected world society" [85]. In this spirit, the principles of dialogism and the principles of narrative intersect, as adopting an interpretation of the world through a narrative lens "generates unique insights into the range of multiple, intersecting forces that order and illuminate relations between self and society" [86]. As Hermans and Kempen assert:

> "The notion of 'story' or 'narrative' assumes the existence of a person who tells and an actual or imaginal person who listens. The fact that a listener, another person, is always present or implied, makes the self a dialogical phenomenon *par excellence*. The view of the self as a narrative does not only apply to Western culture, but also to other cultures, as people of all times and places have told each other stories about the world and themselves" [87]

For Bakhtin [88], each utterance contains at least two voices,

namely, the voice of the speaking person and the voice of the social language through which it is ventriloquated:

> "Words and discourse are socially charged, dialogically engaged with past, present and future audiences, and populated by the intentions of the unique speaker" [89].

It is this latter position that writers within dialogism emphasise. Although the dialogically constituted subject is decentred [90,91], the individual subject is not removed completely, as human creativity, responsibility and agency are given considerable prominence. It is the process of authorship that is key in the development and production of the self. The self, as a result, is no longer seen as a product of a single, monotonic voice but rather is the result of the emergence of the interactions that occur among authoritative and 'internally persuasive' discourses:

> "Thus speaking and authoring a self can be a creative and novel endeavour, an act that constructs personal and cultural meanings. An author in her utterances also creates or assumes one or more positions in a cultural or figured world. In weaving a narrative, the speaker places herself, her listeners, and those who populate the narrative in certain positions and relations that are figured by larger cultural meanings or worlds. Narrative acts may reinforce or challenge these figured worlds" [89].

6. Using narrative in psychological research

As recognised by Paschen and Ison, narrative approaches are inclusive on a number of levels: socially, structurally and conceptually [17]. At the centre of narrative approaches to data generation is co-construction. Whereas researchers within a normative realist model of environmental psychology would gather and collect data, narrative researchers engage in a process of co-construction and mutual reflection about the phenomena being studied. According to the social constructionist tradition narrative researchers:

> "…do not have direct access to another's experience. We deal with ambiguous representations of it – talk, text, interaction and interpretation" [38].

Rejecting the notion of realism that there is a 'real' world 'out there' that can be objectively studied, the social constructionist view sees the world and the experiences associated with the world as interpretations. Therefore, if we cannot have access to 'direct' experience we deal with a person's account of it. Consequently, narrative researchers are mindful about issues such as voice and positionality. Narrative researchers reflect critically on the process of research as much as on the topic under study. The context within which the research takes place, the roles of the researcher (listener) and researched (storyteller) and the interpretation are all subjected to extensive critical reflection [92]. In broad terms, the process of generating and analysing narrative research is iterative. Riessman outlines five interconnected levels of engagement with research 'data'. These are subject to constant shifts, as at each level a different subjective interpretation is brought by the teller, the listener and, ultimately, the reader. The first level comprises attending to experiences: these experiences are sensory experiences, experiences that get the researcher's attention as a backdrop to the area of study, experiences that influence the following levels of representation. The second level is seen as the 'telling about experience'. This level is the performance of a personal narrative, where the teller provides his or her narrative account and includes and omits information depending upon the function the narrative is serving. The third level is the transcribing level, where a recorded conversation is given written text status. However, it is claimed here that such written text can never be an unproblematic transparent recording of the interview. The next level is that of analysing experience. Here, the researcher explores significant parts of the teller's account to analyse in adherence to the research aims

or epistemological position of the research project. The final level of representation, according to Riessman, is that of reading experience. At this level, depending upon the ontological, epistemological and theoretical position of the reader, each text is open to an infinite number of interpretations [38]. As Rabinow and Sullivan assert, every text is "plurivocal, open to several readings and to several constructions" [56]. Similarly, performatively speaking, if we take a dialogical perspective [87,93] each text can be seen to contain multiple positionings as the teller unfolds their narrative. This narrative may present a multivoiced or polyphonic self in dialogue with voices both canonical and internalised, as well as dialogues between past selves and/or voices [94].

These interconnected levels of representation highlight how complex the issue of truth is for narrative theorists. Narrative is grounded in subjectivity and therefore truth is also subjective. The Personal Narratives Group saw truths in this way:

> "When talking about their lives, people lie sometimes, forget a lot, exaggerate, become confused, and get things wrong. Yet they are revealing truths. These truths don't reveal the past 'as it actually was,' aspiring to a standard of objectivity. They give us instead the truths of our experiences…Unlike the Truth of the scientific ideal, the truths of personal narratives are neither open to proof nor self-evident. We come to understand them only through interpretation, paying careful attention to the contexts that shape their creation and to the world views that inform them. Sometimes the truths we see in personal narratives jar us from our complacent security as interpreters 'outside' the story and make us aware that our own place in the world plays a part in our interpretation and shapes the meanings we derive from them" [95]

If, as Sarbin claims, "[T]he narrative allows for the inclusion of actors' reasons for their acts, as well as the causes of happening" [39], each narrative, in the telling, is inextricably linked to sensory influences, as well as the functions the narrative is expected to serve in the telling.

7. Conclusion

This essay started by asserting that the work existing on the topic of pro-environmental behaviours within environmental psychology has not had the wide social impact needed to address the challenges arising as a result of climate change. Whilst we know more about people's decision-making and attitudes and the factors that influence behaviours as a result of the 40 years of work on pro-environmental behaviours, there hasn't been a subsequent change in the way in which people act in relation to energy. The essay has argued that owing to the complexity associated with climate change, energy use and sustainability, the use of a normative social cognitive paradigm starts from a position that removes people from their social and cultural context. A number of researchers from across the social sciences have, in the last decade, provided strong arguments for the value of adopting narrative approaches in understanding behavioural responses to climate change and the need to embed energy efficiency into daily practices [17,19,53]. Such work has looked at how people make sense of their lives and how energy policies can embed particular narratives within them in order to evoke particular individual responses and understand community-level approaches to environmental challenges. However, the move towards narrative within pro-environmental psychology remains in its infancy. In this essay I have sought to redress this balance by exploring the development of what has become known as the 'narrative turn' in psychology, in order to provide a canvas upon which further applications of narrative within pro-environmental psychological research can build. The paper has reviewed ways in which various writers have adopted the narrative metaphor in attempting to understand individual and social understanding. As McAdams has argued, narratives are essential to our human development and understanding:

"We are tellers of tales. We each seek to provide our scattered and often confusing experiences with a sense of coherence by arranging the episodes of our lives into stories" [79]

Adopting the narrative metaphor within the context of energy research can provide new tools for understanding the lives of people and, by listening to their stories, new ways can be found to influence the dominant cultural narratives via policies that are drawn upon to guide how we perform our roles and act in a range of particular situations [36]. Paschen and Ison provide a compelling description of their work with communities on the topic of flood resilience [17]. As many actions within the domain of climate change adaptation or energy require collective responses, an understanding of where a community stands on particular issues, what steps they believe are necessary and, importantly, their role in them is crucial. Similarly, Brown, Swan and Chahal discuss this in relation to failures in the delivery of domestic retrofit in the UK by drawing on the notion of rumour and how stories of 'shoddy workmanship' are transmitted between neighbourhoods. Such stories contribute to increasing alienation from the retrofit process and breakdowns in trust in 'experts' and the advice being given [96].

As such, the author shares Plumwood's argument of the need to overcome "the ecological crisis of reason", where decisions are made seemingly on the basis of dominant technical-rational evidence that appears to override emotional and experiential human–environment dialogical relationships [97]. There are complexities in abundance in everyday life. Where and how we live and work, our interfaces and interactions with objects and technologies, the meanings we attribute to temperature and our surroundings and our physiological responses all interact to present us with challenges for personal coherence. Energy-efficient behaviours may not be transferable between different contexts (e.g. home and workplace), and ways of acting in one situation do not necessarily determine that the same actions will occur in other similar situations. As such, as well as a move away from the use of social cognition to 'explain' behaviour, there may be a need to move away from the concept of an integrated/monological self in which we are characterised by unitariness to a process of understanding people that is inherently dialogical. It may therefore become less surprising that people are seemingly 'irrational' beings, as they are both 'efficient' and 'inefficient' in their use of energy. Rather than a monological narrative view, which discounts the possibility that such equal and contradictory views or, more appropriately, voices can be held simultaneously, such interplay is expected and accepted. Such dialogical narrative approaches could help provide new ways to tackle complex questions that explore the value–action gap; in other words, why when people report certain values and attitudes this does not always predict their behaviour. Similarly, adopting such an approach allows the appreciation of community-level narratives, which can help in understanding apparent incongruities between the values held by social groups and the actions of members of these groups. Whilst this essay has presented only one adoption of the narrative metaphor, by psychology, which belies the immensity of the field, further research in this area could contribute to the development of a richer understanding of the benefits of adopting narrative and dialogical approaches in the area of energy research.

Acknowledgements

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