

The Methodological Challenges of Research into Dance for People with Parkinson's

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Parkinson's is a neurodegenerative disease that affects one in 500 people. It is a condition that affects the ability to initiate movement, to keep movement going and to stop movement voluntarily. Often, symptoms manifest themselves as limb tremors, rigidity of muscles, slowness of movement, a lack of co-ordination and difficulty in balancing. Many people with Parkinson's fall regularly and many feel socially isolated. There is no cure, and drugs to alleviate symptoms can be unreliable, sometimes even resulting in involuntary movement (dyskinesia) and hallucinations.

*There is a small but growing network of dance practitioners who deliver group dance sessions to those with Parkinson's. Evidence suggests that temporary relief of some symptoms is afforded by dancing to music and that dancing aids some people with Parkinson's to cope better with everyday actions. Most dance practitioners, however, approach sessions as a way for people to engage in an artistic and social practice. This paper was written at the start of a mixed-methods research project carried out in conjunction with English National Ballet, whose Department of Learning piloted twelve dance sessions for people with Parkinson's based on Nureyev's *Romeo and Juliet*. It discusses the tension between characterising dance as a rehabilitative therapy and perceiving it as an artistic and social practice.*

Most Parkinson's research has focused on finding a cure through neurological, biomechanical and pharmaceutical explorations. There has also been a reliance on numerical data for quality of life reports. In addition, the majority of research examining dance for people with Parkinson's has used quantitative methods and has focused on clinical benefits afforded by dance. The dominance of, and perceived need for, 'hard' scientific research methods and analysis prove a challenge to the qualitative researcher, who comes with a different viewpoint on how we know and understand the world, and with different ways of researching. The paper will argue that a dance researcher with a different methodological base can also offer potentially useful insight into the individuals who have this neurological condition, an insight different to

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that offered by quantitative research. Using sociological tools, such as interview and observation techniques, the qualitative researcher may examine participants' lived experience of dancing with a body that moves in an unpredictable and atypical manner, as well as analysing the context in which this experience takes place. There is a need to focus attention on the dancing person, rather than merely on his or her disease.

The paper reviews the literature on dance for people with Parkinson's, as well as outlining the traditional methodologies used to examine the disease and its symptoms. In doing so, it identifies the gaps in knowledge that could be explored through qualitative approaches, as well as how such approaches may be of use in strengthening ideas proposed by scientific methods. Through scoping arguments made by disability studies scholars, the paper goes on to advocate for a qualitative approach that critically engages with context, language and actions, but that also acknowledges the materiality of the body. By placing the person and his or her experiences at the centre of research, it argues that a qualitative study is well placed to examine how a person can ascribe value to dance as an artistic and social practice, while attempting to cope with a debilitating condition through dancing.

INTRODUCTION

Sitting in a circle in a community hall in Kendal, the dance participants unfurl their left arms and, impelled by the twist in the spine, sweep their right arms across their bodies to unite both hands together. Tom then draws the right arm back across his body to the right side through a number of minute articulations of the arm, head and torso. On the other side of the room Charles moves his arm very slowly across his body with great concentration, creating a sense of a special space in between his torso and hand. Meanwhile Oriel's eyes light up as her husband sitting next to her touches her hand and Bella laughs as she realises she has gone a different way to everyone else. These participants come weekly – and have been for some years – to this dance session for people with Parkinson's¹ and their carers.² Meanwhile, in Tottenham, London, Argentine Tango music sweeps round a dance studio, as a small group of people with Parkinson's practise walking under the guidance of their exacting tutor;³ breaking the movement down, pushing with the heel, twisting their spine in opposition to their front leg, feeling the carriage of the pelvis, in preparation for dancing the Tango with a partner.

In the UK, there is a small network of dance practitioners who, as part of their work, run classes for those with this debilitating neurological condition. Dance work in this area is small, but interest from the dance and medical communities is growing and this is mirrored by a similar pattern of growth in dance for people with Parkinson's elsewhere in Europe and in North America. Inspired by the phenomenal popularity of dance sessions run by the Mark Morris Dance Group in Brooklyn New York,⁴ who cater for approximately sixty participants each week, English National Ballet joined these independent dance artists by piloting twelve dance sessions for those with Parkinson's.⁵ I was invited

by English National Ballet to conduct research on dancing with Parkinson's focusing on the twelve sessions delivered.

On commencing research for the English National Ballet project,⁶ as well as with the other, more established groups, I am faced with a challenge as a qualitative researcher. I am interested in the experiences that dance as an embodied artistic form may give to individuals with Parkinson's and, conversely, what they may give to dance. Most mainstream medical research in the area of Parkinson's is quantitative.⁷ It is also committed to finding out how to alleviate symptoms, stop progression of the disease or cure it: dance is a tool for a greater good, rather than something that needs understanding in its own right. The challenge is how to create a convincing argument about the value of qualitative research in this area, with its different priorities, methodology and research methods. This paper is primarily concerned with how qualitative research may contribute to the overall understanding of dance for people with Parkinson's and its strengths in collaborating with quantitative research.

The argument is built on the premise that dance is a complex social phenomenon. It can be conceived of as an artistic and creative activity, as well as a form of exercise and sometimes as a therapy. As a social phenomenon, there are also political ramifications to how it is used, presented, thought about and theorised. As this paper will point out, qualitative dance scholarship has done much to develop and promote this view of dance.

In starting with this premise, the paper observes that the complexity of dance, by necessity, is not an object of enquiry within quantitative studies of dance for people with Parkinson's, as the parameters and scope of research in scientific studies have to be narrowly defined. Although it is not always acknowledged, different modes of research are attached to different epistemological viewpoints. With particular ways of looking at the world, come particular beliefs about the ontology and identity of phenomena. In other words, a methodology that works on the belief that things are knowable through a system of empirical testing of cause and effect is likely to think of dance as a thing that is knowable through the same system. A system of research that upholds the view that knowledge is contingent (partial and open to change) is likely to perceive dance in a less straightforward manner. For a qualitative researcher, who emphasises the interpretative understanding of human experience, dance is neither straightforwardly knowable, nor easily compartmentalised. There is, therefore, a way of examining dance for people with Parkinson's that has not yet been approached in depth. Dance may be studied as a creative and artistic activity (rather than as standardised exercises) and acknowledgement can be made of a way of working that often champions a person's individual way of moving.

This paper will argue that the inclusion of qualitative methods and analysis is important for the wider understanding of dance and the experience of Parkinson's and will offer ways in which qualitative and quantitative analyses might usefully work together to the good of research into dance and Parkinson's. The paper will firstly outline the traditional methodologies and research

methods used to study Parkinson's, both quantitative and qualitative. This section also summarises the research which has been published on dance for people with Parkinson's. Following this, the paper discusses the challenge for a qualitative scholar working in a predominantly scientific research domain. The argument develops in the subsequent section by proposing ways in which qualitative research can usefully support quantitative studies examining dance for Parkinson's and develop new avenues of enquiry. Finally, the paper suggests a particular methodological stance in conducting qualitative research in the field, which brings together a critical questioning of context, language and action, with an acknowledgement of the materiality of the dancing body. It argues for the need to focus attention on the dancing person (the embodied self) with Parkinson's in combination with developing contextual and political analysis.

PARKINSON'S

Parkinson's is a neurodegenerative disease resulting from the depletion of the chemical dopamine in the basal ganglia of the brain. The lack of dopamine interferes with the ability to initiate movement, to keep movement going, or, contrariwise, to stop moving voluntarily. Parkinson's, therefore, can curtail the implementation of everyday tasks and actions. Although symptoms vary greatly from one person to another, people affected often experience tremors and rigidity in muscles, slowness of movement (bradykinesia) and, by contrast, a hurried, shuffling walk (festination). They may experience a freezing of movement, have limited facial expression, an increasing quietness of voice and difficulty swallowing. Other non-motor symptoms may materialise, such as constipation, depression and dementia. Falls are common, as is social isolation. There is no cure and drugs given to alleviate symptoms often contribute to involuntary movements (dyskinesia) and their effects can be unreliable.⁸

TRADITIONAL METHODOLOGIES OF PARKINSON'S RESEARCH

Most research into Parkinson's is geared to help in finding a cure, or at least to understand the disease in more depth. In particular, scientists in the fields of neurology, bio-mechanics and pharmacological development have understood the importance of examining the condition. Until recently, it was thought that exercise would exacerbate symptoms and hardly any research was carried out concerning the effects of exercise on Parkinson's.⁹ Consensus has altered and most neurologists recommend exercise to maintain health.¹⁰ There is also a growing body of bio-mechanical and neurological research examining the effects of specific exercise, as well as ways to optimise motor control.

Nearly all published work in the area of Parkinson's and rehabilitative modalities has used a quantitative methodology and methods, from the randomised clinical trial,¹¹ to the pilot test¹² and psychological evaluations on quality of life.¹³ In other words, research has used statistical analysis to put

forward conclusions, and has examined cause and effect through measurements in a test environment. Together with meta-analyses, the double-blinded clinical trial remains the most venerated scientific method for procuring evidence of efficacy.¹⁴ Trials characteristically use a large random sample of volunteers who do not know whether they are a control group or involved with the entity being examined – and neither do the testers – in order to rule out conscious or unconscious manipulation of data by participants and researchers. Because of the large sample, statistical results should be more reliable.

Interest in dance as a tool to alleviate symptoms of Parkinson's has only recently begun to grow, with research concentrating mainly on the potential of Tango to aid gait and balance.¹⁵ Although dance commonly comes under the category of art form, the majority of this research has focused on its rehabilitative application to improve mobility, balance function and quality of life, rather than its artistic make-up and has extracted conclusions based on statistical analysis of measurements taken using motor tasks before and after dance sessions. Many of these tasks are standard validated tests used to assess, for instance, balance and mobility (as in the Berg Balance Scale),¹⁶ mobility (as in the Timed up and Go test),¹⁷ disease severity (as in the Unified Parkinson's Disease Rating Scale, UPDRS),¹⁸ or quality of life (as in the Parkinson's Disease Quality of Life Questionnaire 39, PDQL39).¹⁹ They are not tasks carried out as part of the dance or music session. The reason for using them is to try to replicate the methods and results of previous research projects in an experimental environment and in doing so, validate the conclusions. If the results were significantly different to previous analyses, then the tests would become a baseline in which to rule out various factors to discover why results were different.

Since 1989 when Beth Kaplan Westbrook and Helen McKibben published their controlled study of the neurological and emotional effects of Dance Movement Therapy on groups of outpatients with Parkinson's,²⁰ there has been a small, but increasing output of research, notably since 2007. Madeleine Hackney and Gammon Earhart in particular have contributed to this output with a number of controlled and comparative research projects and case studies examining Tango as a means to promote increased functional mobility, balance and stability in Parkinson's patients.²¹ In each study conducted, Hackney and Earhart have concluded that dancing the Tango over a limited number of weeks²² improved measures in fall risk, gait and balance confidence and facilitated positive social interaction. In comparison to other non-dance exercise, results persistently showed that participants who performed Tango improved the most.²³ Other research projects examining other dance classes for one month to a year have produced similar results using similar research methods.²⁴ The positive impact of dance on balance and mobility for people with Parkinson's is beginning to be verified with these results. Hackney and Earhart comment, however, that there is a need to use these results to support larger, randomised controlled trials.²⁵ In addition, they realised that there are other factors yet to be explored, such as the duration of beneficial effects, adherence to dance,²⁶ the effect on mood and cognition, and cost-effectiveness as a non-pharmacological therapy.²⁷

The two influential natural science projects of the nineteenth century, which helped first classify Parkinson's, by James Parkinson²⁸ and Jean-Marie Charcot,²⁹ were observational studies looking at people with the 'shaking palsy' in an everyday environment and within the confines of the Salpêtrière. One of the most well-known studies of the late twentieth century, a biographical account of Parkinsonian patients lasting several years, was written by the doctor Oliver Sacks.³⁰ First published in 1973, *Awakenings* was a study of a group of post-encephalitic³¹ patients in a hospital for the chronically ill. His observations began as he experimented with the administration of the then new drug L-dopa to his patients, who until that point, had existed for most of their days in a physically 'frozen' state. He changed his methods from a double-blinded trial of L-dopa lasting ninety days, to giving L-dopa to all the patients, concentrating on an ethnographic study of what he witnessed over several years. The results were so startling—his patients on L-dopa 'awoke' from their forty year 'sleep'—that he felt morally impelled to give it to all patients and abandon the trial. It was only after several months of studying his patients since their 'awakening' that Sacks began to observe and document the often traumatic consequences of long term use of L-dopa for the post-encephalitic patients.³² More recently in 2009, Samantha Solimeo published a large ethnographic study on people living with Parkinson's in Iowa, United States of America.³³ Solimeo details the experience of life for her subjects and their carers framed by a discussion of perceptions of ageing by sufferers.

Both Solimeo's and Sacks's accounts bring to the fore what it is like to live with Parkinsonian symptoms, documenting the experiences, thoughts, feelings and emotions of those affected, as well as observations on the physical conditions of their subjects. In addition, there have been papers in medical sociology journals examining specific situations with subjects who have Parkinson's.³⁴ In general, however, research in medical sociology and disability studies, which gravitates towards qualitative methodologies, has examined the experience of living with chronic illness in general, or with other specific conditions. Moreover, despite the overwhelming predominance of qualitative research in dance studies,³⁵ in-depth qualitative research into dance as art, as practised by people with Parkinson's, has yet to be published,³⁶ although there are a few exceptions within Dance Movement Therapy.³⁷

Qualitative studies, including those within dance scholarship, are characterised by research in a natural³⁸ environment, rather than in an experimental setting. The research does not aim to prove something empirically, or to determine causal relationships between variables,³⁹ but to contribute to greater understanding of the complexity of human existence, people's perceptions and actions; the lived experience. Despite a diverse, and sometimes opposing, range of disciplinary and methodological perspectives,⁴⁰ qualitative research in general uses a spectrum of methods, such as interviews, conversations, participant-observation, observation, biographical accounts, and documentary material, as well as drawing on theoretical insights into the role of ideology in society, for example, 'to make sense of, or to interpret, phenomena in terms of

the meanings people bring to them.⁴¹ In addition, a contemporary qualitative study will not ignore the researcher's place within the situation examined. A reflexive stance is championed through recognising the role that assumptions, interventions, bias, and relationships with the subjects of study, and cultural and social backgrounds of protagonists, all play in influencing the description and interpretation of the event taking place.

A qualitative focus adds a human dimension to research. In Sacks's case, he argued that he felt it important not to forget the person, the subject within the research, rather than just concentrating on the disease and its effects. He commented that, 'over and above the disorder, and its direct effects, were all the responses of the patients to their sickness. So what confronted one, what one studied, was not just disease or physiology, but *people*, struggling to adapt and survive.'⁴² He added in a footnote:

We have seen Parkinsonians as bodies, but not yet *as beings*... if we are to achieve any understanding of *what it is like to be Parkinsonian*, of the actual nature of Parkinsonian existence (as opposed to the parameters of Parkinsonian motion), we must adopt a different and complementary approach and language.⁴³

The approach taken is to examine the person with the condition as the primary focus, rather than the disease as a biomedical entity. Analysis is not pared down to numbers to look at efficacy, but prises apart layers within description to examine the multi-dimensional nature of the experience in question.

In researching dance for people with Parkinson's from a qualitative point of view, the emphasis on the human experience, on the dancing person, rather than purely on his or her body and its pathologies, is primary. The encouragement of qualitative research – in addition to quantitative research – will broaden the understanding of what dance can offer to individuals, and of the ways in which dance is used and experienced within this specific context and in other dance-for-health settings. It may also be more palatable to community dance practitioners, who operate according to a set of principles based on valuing the participants as individual artists, with their own contributions to make to dance.⁴⁴ With a 'person-centred'⁴⁵ focus to leading dance sessions for people with Parkinson's, practitioners are interested in research that does not interfere too much with participants – there is a fear (probably unfounded) that interventions may compromise a carefully fostered sense of participant autonomy.⁴⁶ Also, this focus enables dance leaders to explore questions that interest them as professional, reflective practitioners; namely those that centre on the individual participants and, the relations between them, and the issues that affect participant behaviour and actions during class. In other words, they are interested in questions that require a researcher to examine the multi-dimensional nature of a dance project; questions that start with 'why', or 'how'. As medical educationalists Luc Côté and Jean Turgeon point out, 'as a general rule, qualitative studies strive to describe in greater depth the how and why of phenomena, whereas quantitative studies are used to measure a phenomenon for generalizing the results or testing a hypothesis'.⁴⁷ In addressing the 'why' questions, qualitative research

will contribute to the development of dance practice through engaging with community dance professionals, and it will address questions that are more readily answered by qualitative means.

PARADIGM CHALLENGES

As Sacks points out, the two general methodological stances can be seen to be complementary, addressing different sides of the same phenomenon. Complements between parties from both perspectives, however, are hard to come by,⁴⁸ despite a growth in mixed methods research.⁴⁹ In the early 1970s, Sacks details the frustration he experienced at having his groundbreaking research sidelined by the medical community. His articles were refused publication in leading medical journals and many of the medical profession refused to believe his conclusions. He surmises that this was in part a reaction to not wanting to hear about the side-effects and unreliability of L-dopa, but also partly because he was discussing his findings in a language and format that was different to what had become traditional in biomedical journals.⁵⁰ Since then, in many articles comparing qualitative and quantitative research,⁵¹ scholars have been quick to point out the argument between those subscribing to a view of the world that is knowable and certain, and those who believe that knowledge is contingent, that 'reality' (if there is one) has to be interpreted through the cultural and political *milieux* in which people live. For some scholars, their epistemological position (their standpoint on knowing things and how we know them) is crucial; not only to how they conduct their own research, but also to how they perceive others' research. If different epistemological principles are the foundation for the ways in which the research is conducted, then it is sometimes the case that arguments surrounding the validity and reliability of the research erupt.

The sociologists Bryan Turner and Steven Wainwright note in their 2003 study of injured ballet dancers, that social constructionism, as an important branch of critical theory, problematises the 'taken-for-granted wisdom of the 'medical model'' and 'various forms of biological reductionism' and so undermines 'naive empiricism'.⁵² Yet, despite such rigorous attacks, the quantitative model regarding medical research is dominant. Social medical researchers Nicholas Mays and Catherine Pope comment that,

in the health field—with its strong tradition of biomedical research using conventional, quantitative, and often experimental methods—qualitative research is often criticised for lacking scientific rigour. To label an approach 'unscientific' is peculiarly damning in an era when scientific knowledge is generally regarded as the highest form of knowing.⁵³

William Miller and Benjamin Crabtree, doctors, as well as anthropologists, note a similar sentiment amongst their colleagues in the medical community:

The biomedical influence, with its perceived therapeutic imperative, steers toward pragmatic interventions and the desire for explicitness and coherence in information gathering and decision making and highlights the appeal of positivism and technology.⁵⁴

They go on to note that this drive to achieve wellness, to cure disease, to bring clear answers to untidy situations lends itself to the creation of research that is geared to answering questions in simple ways. The ‘uncertainty and particularity of clinical praxis’ that are fittingly uncovered and understood through ‘storytelling, relationship and interpretation’ are ignored in favour of quantitative studies of the medical condition: ‘Trying to get grants funded, to publish storied knowledge in biomedical journals, and to change dominant behaviours exposes the reality of power and hegemony.’⁵⁵ Not only, as noted at the beginning of this paper, are quantitative methodologies dominant, but they also wield power, which may devalue other ways of understanding and knowing. Part of the challenge as a qualitative researcher in a field dominated by another epistemological model, therefore, is to justify the value of what one does. Miller and Crabtree argue that the reliance by health bodies on evidence-based medicine – of clinical trial data and systematic reviews of the current evidence – and the Cochrane library, which disseminates such data, produces a culture whereby other studies not using the methods that qualify for inclusion in the Cochrane library are not considered important or robust. They conclude that ‘the proliferation of clinical practice guidelines is one result of these initiatives. Another result is the relative reduced value of qualitative studies.’⁵⁶ Not only then are health practitioners acclimatised to a particular form of research and information through clinical practice guidelines, but they are also not given much opportunity to find out about other studies (rigorous according to their own epistemological stance) which may have relevance to how medicine, disease, clinical decisions and alternative therapies affect the lives of individuals. Numerical data are the most effective way of judging the efficacy of, for example, a drug or treatment so there are very sound reasons why health authorities attach great importance to research using an evidence-based approach. It is also the case that health funders, medical PR agencies, the media and many patients like the security and immediacy of information that numerical data provides. Yet, Miller and Crabtree argue that knowing the efficacy of a drug (or dance class) is not sufficient to understand how individuals will encounter it, perceive themselves in relation to it and construct notions of health and illness around it.⁵⁷ Efficacy is more complicated than a clinical trial might suggest.

Another example of the dominance of the biomedical model of research is the language used to describe movement and exercise interventions for Parkinson’s sufferers. The medical model seeks to ascertain the benefit derived from exercise from a clinical point of view: can exercise or dance be proven to alleviate symptoms, aid neuroplasticity, disease delay, or even recovery? Exercise for Parkinson’s is talked about in the same manner as any drug, using phrases, such as ‘non-pharmacological intervention’ and ‘dosing’ when surmising about the amount of exercise that could be optimal. Often participants are compartmentalised at a central level in terms of neural pathway changes, alterations of dopamine; in terms of symptoms, such as bradykinesia and postural flexion; and at a peripheral level in terms of physical deconditioning.⁵⁸ They are categorised into scales of disease progression and depression. Impacts in relation

to satisfaction and adherence, more qualitative elements, have been examined briefly by some scientific studies but not in great detail yet. Moreover, although dance is seen within these studies as a particular type of movement form, rather than movement *per se*, thereby acknowledging that dance possesses other qualities and elements not attributed to other movement forms, the language in which dance is discussed does not easily invite discussion of this.

The appropriation of pharmacological language is a useful shorthand for scientists accustomed to conversing in medical jargon to enable easy identification with exercise and dance as potential aids in fighting Parkinson's. It also enables dance to become acceptable to the medical and scientific communities as a possible therapy in helping to relieve symptoms. In terms of examining ways in which dance can be used to cross research divides, the use of language has been central to dance being incorporated into scientific research. The potential problem lies in how one may conceive of dance within this very specific lexicon. The vocabulary classifies dance firmly within a scientific, and by typical accounts, a quantitative paradigm. To think of dance as something other than a non-pharmacological drug would be to consign it, possibly, to irrelevancy. To ask different questions, to point out different benefits or uses of dance would be, at most, mildly diverting. In order to count, dance is given a new language, far removed from the language and jargon of dance's artistic and social heritages. Dance is also given a new presence, a new ontological status, one which aligns with conceiving of the form as a therapy, or even as a bio-mechanical phenomenon, rather than as art or entertainment.

To study dance in this context, outside of the medical or scientific paradigms, involves investigating the nature of dance and how participants experience it. Questions regarding participants' experience of dancing can lead to discussion of how dance is made meaningful for individuals. This may precipitate more understanding about why people choose to dance, what it is that makes dance as an art form different to other forms of exercise, therapy or art, and what it is about dance in its creative, artistic form that supports therapeutic outcomes. Moreover, investigating dance through examining participants' experience can help scholars explore wider issues concerning construction of identity in the face of a chronic and progressive condition, which has a bearing on studies of ill-being, resilience, disability and social integration.

THE CONTRIBUTION OF QUALITATIVE RESEARCH

In using a new language, dance is conceived of in a different way. Attention to the definition of words can aid in defining dance differently. Take, for example, the term 'benefit'. This can be understood in a variety of different ways, yet in dance research using quantitative methods the term is used to denote a specific increase in a quantifiable measure. Broader implications of the use of the term 'benefit' may be analysed by triangulating qualitative data with the quantitative. With a wider definition of benefit than clinical efficacy, qualitative studies could be well placed to discuss questions related to the quality of life, for example, but also

to assess perceptions of what is valued and by whom. Scrutinising perceptions of how and why dance is valued by participants, carers, dance leaders, funders and the research community, can put dancing for people with Parkinson's firmly in political territory. The way value is articulated by various interest groups and individuals aids the weaving of a narrative of impact that reflects preconceptions, perceptions and experiences of what dance is and what it can do for individuals, what is personally important to people at the time, and how they perceive themselves in relation to dance, illness, health and Parkinson's.

These narratives may also reflect what health, arts and social policy agendas are being articulated and carried out by Government and organisations accountable to Government, such as research, health and arts funding bodies. Belfiore and Bennett argue that the large number of studies assessing (or advocating for) the impact of the arts 'have identified an enormous array of impacts, often coinciding with the priorities of whichever governments are in power at the time'.⁵⁹ In a similar fashion to the biomedical evidence-based hegemony, the arts, particularly in recent years, have been subject to evidence-based evaluations of their instrumental worth.⁶⁰ In addition, Belfiore and Bennett argue that, 'the evidence that is most valued in evidence-based policy is that which can be measured'.⁶¹ In this climate, it is all the more important that the perceived value of dance is not only quantified, but also examined critically as an amalgamation of jostling priorities, agendas and ideologies.

In addition, far from being irrelevant to evaluating how or whether dance may be able to aid Parkinson's sufferers, a qualitative study may be able to contribute to the scientific data in a number of different ways. Following Martyn Hammersley, who argues for a 'methodologically aware eclecticism',⁶² it may be able to triangulate results, particularly in areas concerning quality of life, motivation to continue dancing, and physical and social responses in a dynamic, natural environment, such as a dance session. A qualitative study will be able to check statistical data and other experimental results through an in-depth process of observation in the natural setting, having informal conversations in the field and through interviewing. Through these methods, the study also may bring to light certain issues or points that were necessarily ignored by a statistical survey and that may be of interest in analysing results from the specific test carried out. In the light of this, a qualitative study may be able to facilitate a better understanding of participant responses to, for example, scored questionnaires. It is interesting to note that a study of dance which used PDQL39 and Berg Balance Scale, as well as some interviews, concluded that the measurements were too blunt to capture outcomes shown in the semi-structured interviews.⁶³ It is sometimes very difficult to say what one wants to say when one's choice of answer is 'never, occasionally, sometimes, often, always'.⁶⁴ In-depth interviewing or informal conversations may elicit a more complex answer than such a questionnaire could ask for. Someone's definition of 'difficulty looking after your home',⁶⁵ for example, may depend on their perceptions of how neat a home should look, how house proud they are, whether they are used to cooking or cleaning the house themselves or not, whether they used not to clean and cook

and now have to because of, for instance, a poorer financial situation or through the death of a partner and whether cleaning or cooking is something that they care about or not. With extra information, the study should build up a more useful analysis of how individuals perceive quality of life, which is predicated on cultural and political attitudes and social situations, as well as merely whether they can perform a task to a certain level.

Observations which cannot be verified within the specific parameters of quantitative testing can be taken up by a qualitative study. For example, in their comparison of Argentine Tango and American Ballroom dancing for Parkinson's sufferers, Hackney and Earhart note that:

We think that Waltz/Foxtrot may better suit the preferences of some individuals with PD, given socio-cultural differences in musical and dance traditions. Dance variety could increase the effectiveness of a dance intervention by sustaining interest and appealing to diverse populations.⁶⁶

In this instance, the influence of socio-cultural dynamics on dance for health could be explored through qualitative research. It should be of note that Hackney and Earhart could not address the observation in more detail, because of the parameters of their research brief and methods used, and yet, a qualitative study could have helped expand the observation through taking account of the complexity of how people perceive certain cultural pursuits in relation to their actual physical well-being and through exploring the interplay between preferences, health and well-being and dance forms and styles.

Miller and Crabtree argue that qualitative research 'can help surface the unseen and unheard and add depth to what is already present.'⁶⁷ In examining a dance project by talking to participants and other stakeholders, by observing interactions and responses to movement on the dance floor and over tea and biscuits afterwards, the qualitative research may bring back the dance-event as the significant factor, transforming dancing from an instrumental tool in a scientific intervention, to an embodied artistic and shared phenomenon, tea, biscuits and banter included. The term 'dance-event' is taken from Jane Cowan's notion of dancing as something to be observed within the whole situation in which it occurs. It is a concept taken up again by Helen Thomas and Lesley Cooper in their analysis of Third Ager's who frequent tea dances.⁶⁸ Study of the dance-event may be useful as a way of examining the analysis of data procured in experimental conditions in the natural setting, as well as expanding out from the particularity of dancing to the dance-event. This is not to say that quantitative data does not have a home in the natural setting but that elements of the dance-event elucidate the context of the dancing (not easily discussed through numbers), giving a frame for the analysis of the responses, reactions, moods and thoughts of participants.

In charting responses and reactions, qualitative study brings to the fore the priorities and wishes of participants. For example, in conversations with dancers so far, responses to the dance-event have been mixed; some equate their dance sessions with exercise therapy and others want to participate for the pleasure

it gives them, or for the opportunity to meet friends.⁶⁹ In fact, in unearthing such responses, qualitative data brings up new ideas to be verified and discussed by both quantitative and qualitative means in order to understand what dance sessions may bring for those with Parkinson's. In this instance, the observations above might bring up questions, such as whether the dancing is more beneficial because of the short-term increase in fluidity of movement, or because of the social dynamic it can engender, for example.⁷⁰ A new measurement then could be found to procure a straightforward statistical answer to this question, or a discussion might ensue as to why sociability might be more important to participants – with an accompanying evaluation of what can be said about dance and the experience of Parkinson's as a result.

Moreover, a qualitative researcher may be able to examine concepts used by some participants that complicate a straightforward connection between an activity and an increase in wellbeing or better health. One such concept is that of suffering. Both Sacks and Miller and Crabtree point out that subjects within their research have frequently articulated negative responses to being offered a means to get better, for a variety of different reasons.⁷¹ Drugs and other therapies that alleviate symptoms are not always the end of suffering for individuals. Sociologist Arthur Frank, himself a cancer survivor, offers this explanation: 'Suffering involves experiencing yourself on the other side of life as it should be, and no thing, no material resource, can bridge that separation. Suffering is what lies beyond such help'.⁷² Such responses might be unwelcome to advocates of using dance as a tool to aid motor control, and by inference wellbeing, but contrariwise, might produce better understanding of particular dance situations and of the subjects of the research themselves.

A PERSON-CENTRED APPROACH

So far, the paper has discussed qualitative research as one enterprise; one which is distinct from quantitative research. In reality, there are a variety of methodological stances between disciplines and between scholars in the same academic field using qualitative (and quantitative) methods of research. If one accepts that qualitative research is important for understanding dance for people with Parkinson's, then it becomes crucial to distinguish which type, or types, of qualitative methodology might be useful to the study of dance and Parkinson's. This paper has suggested ways in which a contextual and political analysis might be of benefit to dance for Parkinson's research. These ideas have much in common with a social constructionist stance that argues that situations and people can be better understood by questioning taken-for-granted actions, language and situations; reality is constructed by cultural norms and ways of thinking and acting. A qualitative study examining dance for people with Parkinson's, however, also needs to acknowledge the experience of dealing with the material degeneration of the body in conjunction with the visceral experience of moving with music through space and time as a dancer.

Some dance scholars working with sociological methodologies have argued already that the qualitative researcher should have a dual role, examining the dancing body itself, as well as contextual and political issues. For example, Gay Morris and Helen Thomas speak through the traditions of cultural studies and sociology respectively, which, in their poststructuralist or social constructionist guises, they claim, have often developed theoretical discourse, or contextual analysis at the expense of looking at the body.⁷³ Gay Morris points out that political engagement should be infused with the analysis of the human body in motion. 'It is,' she argues, 'for dance scholars to look into how, where, and under what conditions the moving body is perceived in particular ways.'⁷⁴ Sociologist and dance scholar Helen Thomas explains:

The body in Western theatre dance and social dance is generally a key mode of expression and representation. The body, therefore, is almost always implicated in the choreographic forms and the analyst is forced to pay attention to bodily relationalities. That is, it is almost impossible to escape the dynamic, living, presence of the body in movement and stillness, for both the performer and analyst.⁷⁵

It is ironic that the body has been neglected in much of the social science scholarship using methodologies appropriated by scholars in dance studies. Here lies one of the other challenges for a qualitative researcher, studying dance for people with Parkinson's. As well as attempting to add to scientific research on dance for Parkinson's by arguing for the importance of context and by challenging assumptions about social, medical and political realities, one must also be aware of the problems of the traditions through which one argues. In this instance, the moving body must not melt into the shadows as a methodological argument rages.

The problem of the neglected body in scholarship using qualitative methodologies, and the missing 'lived' body in quantitative methodologies, is most keenly highlighted in disability studies. Although many people with Parkinson's would not necessarily call themselves disabled, or ill, many deal with symptoms that threaten to curtail their active lives; many deal with pain and suffering; many fear the encroaching sentence such a condition can incur.⁷⁶ Early scholars and champions of the disability movement in the UK, such as Michael Oliver and Vic Finkelstein, argued passionately and persuasively that it is the exclusionary behaviour of society that impairs and holds back disabled people, rather than the physical or mental impairments themselves.⁷⁷ This social model of disability has become mainstream discourse within disability scholarship and advocacy. Disability scholar Carol Thomas argues that the social model has ironed out any engagement with the experience of being impaired. She notes that from the social model perspective,

any focus on impairment or 'the body' conceded ground to the biological reductionism that had been orchestrated and sustained by doctors and other health and social care professionals for more than two centuries, a reductionism that lives on in discourses and practices in all social institutions.⁷⁸

In other words, the social model has refused to examine the material experience of being impaired as this might lead to accusations that impairments are disabling, rather than social barriers; that disability is purely about being biologically atypical, rather than about how society perceives and accommodates people with impairments. But Thomas adds that, ‘aspects of disablism are obscured if “being impaired” or “impairment experiences” are not addressed or are naturalised.’⁷⁹ Bill Hughes and Kevin Paterson similarly comment that the idea that pain and impairment are purely a matter for medical science, is incorrect as ‘disability is experienced in, on and through the body, just as impairment is experienced in terms of the personal and cultural narratives that help to constitute its meaning.’⁸⁰ One can still comment on the material experience of having an impairment – a tremor or an inability to walk – in terms of examining how individuals talk about and experience, for example, their frustrations and pain. One can also comment on the disabling experience, for example, of not being able to get on a bus to go to the dance class, from the perspective of how that person responded physically and emotionally to the act of getting on the bus, as well as discussing problems with transport for those with impairments.

But it is also worth reiterating at this point that in order to talk of the experience of dancing, particularly with a disability, it is not sufficient to talk of an individual’s body, rather than of the person. It is not merely the body that experiences disability or dancing, but the person. Indeed, Hughes and Paterson see synergies between biomedicine and the social model of disability’s perceptions of the body: ‘there is a powerful convergence between biomedicine and the social model of disability with respect to the body. Both treat it as a pre-social, inert, physical object, as discrete, palpable and separate from the self.’⁸¹ In dealing with the ‘dynamic, living, presence of the body in movement and stillness’ and with ‘body relationalities’,⁸² one is commenting on *people* moving. A qualitative dance researcher, particularly in the field of Parkinson’s, needs to connect the body to the self; to see the body as part of who the person is (and that also might mean accepting an individual’s *denial* of being a Person With Parkinson’s). People’s attitudes to having an atypically functioning body vary, but ways of thinking and acting are still connected to a person’s response to their body.

Given these debates, it is incumbent upon a dance researcher to turn the focus back on the moving body in a way that gives an embodied voice to the subjects themselves. Parkinson’s is a condition that gradually reveals itself through various corporeal shifts of being, often with negative consequences for perceptions of self-identity. (Turner writes that ‘the relationship between my sense of myself, my awareness of the integrity of my body and experience of illness [is] not simply an attack on my instrumental body (*Körper*) but [is] a radical intrusion into my embodied self.’⁸³) As such, it lends itself to being studied as an embodied phenomenon. The participant-dancer’s experience of moving may enable the researcher to uncover individual embodied responses to the way of being for someone with Parkinson’s. Dancing offers a way for participants to articulate their experiences and ways of being through movement, as well

as speech. It also may offer someone the opportunity to experience moving differently and, for the brief space of time within the dance class, allow them to think differently about themselves as movers, about what they can do, rather than what they cannot. In this way, the research priority is not on whether participants can be cured, but on providing the opportunity to highlight how people cope with Parkinson's whilst dancing, as well as possibly how they modify their attitudes to moving. There is no cure to date so sufferers are limited to searching for ways to manage their condition. Dance research with a focus on the experience of participants, as well as a method of analysing movement, such as that developed by Rudolf Laban,⁸⁴ can contribute to this. As an example, the special relationship a person with Parkinson's can have with space and time⁸⁵ could be a key dimension to such research, as these aspects of embodied experience have been explored in depth in the practice and theory of dance. Sacks notes that, 'space-time judgements are *pushed out of shape*'⁸⁶ for many people with Parkinson's. The sufferer is sometimes subject to a 'warping'⁸⁷ of space and time. Documenting the analysis of how such judgements of scale are performed or modified in a dance setting may prove productive, particularly if combined with an examination of the dance-participant's perception and attitude to this phenomenon. Indeed, evidence suggests that the marking of time through movement to music may temporarily alleviate bradykinesia or festination.⁸⁸ In addition, rather than merely seeing the variation in movement as the result of dysfunctional bodies, respecting and describing the poetry formed through dance by each participant-dancer may allow the documentation of unique movement narratives using tools from dance studies. It would also serve a political function in validating movement responses to music of people who may not have been considered capable of dancing or creating dance.

By arguing for an approach that prioritises the person participating in the dance-event, rather than how Parkinson's symptoms in his or her body are alleviated by dance, qualitative studies can address a gap in current literature on dance and Parkinson's. As a partner for quantitative studies it can usefully aid in the triangulation of data and expand on issues. On its own, it can highlight the context in which people choose to attend dance sessions and from there expand on the political issues that are raised from the analysis. Such data could be useful to social organisations that support and provide advocacy for people with Parkinson's. Qualitative research can also help disclose the embodied responses of participant-dancers. This will aid the study of how people with Parkinson's experience, respond to and create dance. Far from being incidental to Parkinson's research, a qualitative study may contribute in a pertinent way to understanding ways of being for those with Parkinson's.

NOTES

1. Throughout the paper, I shall be using the term 'Parkinson's' rather than 'Parkinson's Disease' or 'PD'. Although the latter two terms are in common use in North America, particularly in research journals, 'Parkinson's' is the preferred term now used amongst

the Parkinson's community in the UK. Describing it as a 'condition' (that one lives with) rather than a disease is favoured too. In addition, the term 'PD' is used by the UK medical community to mean 'personality disorder' not 'Parkinson's Disease'. Since my research featured in this paper focuses on the experiences of UK based individuals with Parkinson's, I will be using their preferred term throughout.

2. Led by Daphne Cushnie, community dance artist and neurological physiotherapist, the class meets weekly in Kendal for creative movement and dance. Physiotherapy ideas can be seen in the structure of some movement tasks. See Cushnie, 'We're Still Dancing'.
3. Anthony Howell leads his 'Tango for Balance' group weekly for those with Parkinson's and people with other balance issues. The class focuses on the principles of the Tango to aid balance, as well as to dance Tango with technical competence.
4. Brooklyn Parkinson Group collaborates with Mark Morris Dance Group to offer weekly dance classes. Participants are encouraged to leave medical concerns aside and have fun. They are depicted in the documentary *Why Dance for Parkinson's Disease?*
5. English National Ballet provided a creative dance class following some basic ballet principles and offered participants the opportunity to experience a ballet performance and company rehearsals.
6. The English National Ballet project has a mixed methods approach to research. Alongside the qualitative fieldwork, Ashley McGill from Roehampton University is conducting balance, stability and posture measurements before and after sessions.
7. For example, a search for published articles on Parkinson's in one of the top academic journals, *Neurology*, indicated that most research studies had used statistical evidence, or were conducting reviews and meta-analyses of studies which did. See http://neurology.jwatch.org/articles/Parkinsons_disease.dtl
8. Parkinson's UK has a useful guide to Parkinson's in lay terms. See www.parkinsons.org.uk
9. Hirsch, et al., 'From Research to Practice: Rehabilitation of Persons Living with Parkinson's Disease'.
10. See for example the interview with neurologist J. Eric Ahlskog by Hill, 'An Afternoon with Prof J Eric Ahlskog', p.7 and Nieuwhoer, 'Exercise for Parkinson's disease'.
11. Suchowersky et al identified eight class 2 randomised controlled trials in exercise therapy and Keus et al identified fourteen other physical therapy randomised or non-randomised controlled trials, cohort or patient-control group studies. Suchowersky et al, 'Practice Parameter' and Keus et al, 'Evidence-based analysis of physical therapy in Parkinson's disease with recommendations for practice and research'.
12. See for example, Stallibrass, 'An evaluation of the Alexander technique for the management of disability in Parkinson's disease', and Hackney and Earhart, 'Short duration, intensive tango dancing for Parkinson disease'.
13. See, for example, Pacchetti et al., 'Active Music Therapy for Parkinson's Disease'.
14. Miller and Crabtree, 'Clinical Research', p. 612. Suchowersky et al.'s report to the Quality Standards Subcommittee of the American Academy of Neurology classified articles in an evidence-based review of therapies for Parkinson's in a four-tiered level of evidence scheme. Class I papers had used randomised, double-blinded clinical trials. Suchowersky, et al., 'Practice Parameter'.
15. See, for example, Hackney, et al., 'A Study on the Effects of Argentine Tango as a Form of Partnered Dance for those with Parkinson Disease and the Healthy Elderly'.
16. Berg Balance Scale form and film: http://www.aahf.info/pdf/Berg_Balance_Scale.pdf and <http://www.youtube.com/watch?v=NX2LD5G3BFo>
17. Timed Up and Go film: <http://www.youtube.com/watch?v=7TrtCMYUzno>
18. UPDRS form: <http://viartis.net/parkinsons.disease/UPDRS1.pdf>
19. PDQ39 form: <http://viartis.net/parkinsons.disease/PDQ39.pdf>
20. Westbrook and McKibben, 'Dance/Movement Therapy with Groups of Outpatients with Parkinson's Disease'.
21. Hackney, et al., 'A Study on the Effects of Argentine Tango as a Form of Partnered Dance for those with Parkinson Disease and the Healthy Elderly'; Hackney and Earhart, 'Health-related quality of life and alternative forms of exercise in Parkinson disease'; Hackney and Earhart, 'Effects of Dance on Movement Control in Parkinson's Disease';

- Hackney, and Earhart, 'Short duration, intensive tango dancing for Parkinson disease'; Hackney, and Earhart, 'Effects of dance on balance and gait in severe Parkinson disease'; Hackney and Earhart, 'Effects of Dance on Gait and Balance in Parkinson's Disease'; Earhart, 'Dance as Therapy for Individuals with Parkinson Disease'.
22. The duration was usually between 10–13 weeks for trials, with classes once or twice a week.
 23. Hackney and Earhart, 'Health-related quality of life and alternative forms of exercise in Parkinson disease'; 'Effects of Dance on Movement Control in Parkinson's Disease'; 'Effects of Dance on Gait and Balance in Parkinson's Disease'.
 24. See for example, Westheimer, 'Why Dance for Parkinson's Disease?', Heiberger, et al., 'Short-term effect of dance on motor control in Parkinson's disease patients' and Batson, 'Feasibility of an Intensive Trial of Modern Dance for Adults with Parkinson Disease'.
 25. Hackney and Earhart, 'Effects of Dance on Movement Control in Parkinson's Disease', p. 7 (NIH-PA author manuscript)
 26. Ibid.
 27. Earhart, 'Dance as Therapy for Individuals with Parkinson Disease', p.6 (NIH-PA Author Manuscript)
 28. Parkinson, *An Essay on the Shaking Palsy*.
 29. Charcot, *Oeuvres Complètes de J.M. Charcot*, pp.409–422.
 30. Sacks, *Awakenings*.
 31. These were patients who had contracted the viral sleeping sickness after the first world war. They exhibited an extreme form of Parkinsonian behaviour, whereby they stayed frozen in one position, even catatonic, for hours on end.
 32. Sacks noted the ecstatic mania, accompanied by sudden physical and mental 'crashes': 'we see virtually instantaneous changes from violently explosive "expanded" states to intensely contracted, "imploded" states – or . . . from "supernova" states to "black holes" and back again'. Sacks, *Awakenings*, p. 256.
 33. Solimeo, *With Shaking Hands*.
 34. See for example, Nijhof, 'Parkinson's Disease as a problem of shame in public appearance'; Pinder, 'Coherence and Incoherence'; Bramely and Eatough, 'The Experience of Living with Parkinson's Disease'.
 35. Dance studies maintains a wide interdisciplinarity with connections to history, cultural studies, anthropology, sociology, continental and analytic philosophy, somatic studies and analyses of the moving body. Dance Science is also a growing area.
 36. Westheimer's 'Why Dance for Parkinson's Disease?' comes the closest when she uses qualitative descriptions of the dance class and some interviews to help her answer her question, and again in her research with McRae et al, 'Dance for Parkinson's', where she uses some interviews alongside several assessment instruments. In the area of practice, the UK choreographer Aletta Collins has made a dance work for Rambert Dance Company based on Sack's account. See <http://www.rambert.org.uk/awakenings>
 37. I would classify DMT as being different in purpose and processes to dance as a concert, or participatory, art form, as research in this area has much more in common with clinical narratives than with mainstream dance research studies. See, for example, Bunce, 'The Living Death'.
 38. Social constructionists may take issue with my use of the word 'natural', in the belief that environments are always socially constructed. I only use the word 'natural' here to distinguish an experimental setting from an un-manipulated environment, where actions of subjects are not directly controlled by the researcher.
 39. Denzin and Lincoln, 'Introduction', p. 8.
 40. Disability theorist Carol Thomas's work, charting the history of disability scholarship, gives clear examples of conflicting theories and ways of looking at health, illness and disability, despite their predominantly qualitative focus. Thomas, *Sociologies of Disability and Illness*.
 41. Denzin and Lincoln, 'Introduction', p. 3.
 42. Sacks, *Awakenings*, xxviii.
 43. Ibid. p. 7.
 44. See Akroyd, 'Community Dance and Society', pp. 17–20 and Foundation for Community Dance, *National Occupational Standards for Dance Leadership*, pp. 18–19.

45. Akroyd, 'Community Dance and Society', p. 17.
46. Not all articulate this fear,. Indeed, some have embraced dialogue with researchers using measurement, but several prominent community dance practitioners have voiced concern over inviting researchers to measure participants, for instance at the panel discussion 'What is Health?' at the 1st International Congress of Dance in Health, June 2011, University of Bedfordshire.
47. Côté and Turgeon, 'Appraising qualitative research articles in medicine and medical education', p. 71.
48. Miller, and Crabtree, 'Clinical Research'.
49. There continue to be articles concerning the 'paradigm wars', as Mark Alise and Charles Teddlie put it, but with publication opportunities in journals, such as the *Journal of Mixed-Methods Research*, the academic community may be becoming more open to the strengths of each paradigm, at least in terms of research methods used. According to Alise and Teddlie, applied research is leading the way in respect of using a selection of research methods traditionally used by one or other methodological stance. Yet, as Philippa Clarke notes in her paper on using a mixed-methods research agenda to study the experience of stroke, it is still uncommon in the sociology of health and illness, her discipline, to mix research methods, let alone give acknowledgement to another methodological paradigm. See Mark A. Alise and Charles Teddlie, 'A Continuation of the Paradigm Wars?', pp. 103–106 and Philippa Clarke, 'Understanding the Experience of Stroke', pp. 293–302.
50. Oliver Sacks, *Awakenings*, xxxiii–xxxvii.
51. Many of the research methods handbooks outline the different paradigms and their histories, as well as critiques. See, for example, Hammersley, 'The relationship between qualitative and quantitative research'; Snape and Spencer, 'The Foundations of Qualitative Research'; Denzin, and Lincoln, *Handbook of Qualitative Research*; or Alvesson and Sköldböck, *Reflexive Methodology*. See also papers by interdisciplinary teams for example, Jola, Ehrenberg and Reynolds, 'The Experience of Watching Dance'.
52. Turner and Wainwright, 'Corps de Ballet: the case of the injured ballet dancer', p. 276.
53. Mays and Pope, *Rigour and Qualitative Research*, p. 109.
54. Miller and Crabtree, 'Clinical Research', p. 609.
55. Ibid. p. 609.
56. Ibid. pp. 612–613.
57. Ibid. p. 608.
58. Nieuwboer, 'Exercise for Parkinson's Disease'.
59. Belfiore and Bennett, *The Social Impact of the Arts*, p. 6.
60. Belfiore and Bennett, 'Rethinking the Social Impacts of the Arts'.
61. Belfiore and Bennett, *The Social Impact of the Arts*, p. 6.
62. Hammersley, 'The relationship between qualitative and quantitative research', p. 167.
63. Westheimer, McRae et al, 'Dance for Parkinson's Disease'.
64. PDQL-39.
65. Ibid. question 2.
66. Hackney and Earhart, 'Effects of Dance on Movement Control in Parkinson's Disease', p. 6 (NIH-PA Author Manuscript).
67. Miller and Crabtree, 'Clinical Research', p. 612.
68. Cowan, *Dance and the Body Politic in Northern Greece*; Thomas and Cooper 'Dancing into the Third Age'.
69. Fieldnotes from Dance for Parkinson's groups in Wimbledon, Kentish Town, Purley, Tottenham, Weymouth and Kendal.
70. Howard Litwin and Sharon Shiovitz-Ezra argue in their 2006 sociological study that the association between activity and wellbeing in later life is primarily to do with the quality of social relations afforded, rather than through the exercise the activity gives. Howard Litwin and Sharon Shiovitz, 'The Association between Activity and Wellbeing in Later Life', pp. 225–242.
71. Sacks, *Awakenings*, pp. 177, 199, 203, 209; Miller and Crabtree, 'Clinical Research' p. 608.
72. Arthur Frank, 'Can we Research Suffering?', p. 355.

73. Thomas, *The Body, Dance and Cultural Theory*, p. 215; Morris, 'Dance Studies/Cultural Studies'.
74. Morris, 'Dance Studies/Cultural Studies'.
75. Thomas, *The Body, Dance and Cultural Theory*, p. 215.
76. Solimeo, *With Shaking Hands*, p. 14.
77. See, for example, Oliver, *The Politics of Disablement*.
78. Thomas, *Sociologies of Disability and Illness*, p. 121.
79. *Ibid.* p. 123.
80. Hughes and Paterson, 'The Social Model of Disability and the Disappearing Body', p. 335.
81. *Ibid.* p. 329.
82. Thomas, *The Body, Dance and Cultural Theory*, p. 215.
83. Turner, *Regulating Bodies*, p. 167.
84. Rudolf Laban invented a system of analysing movement that was partly based on the analysis of a movement's weight (whether strong or light), its travel through space (whether direct or flexible), its time (whether sudden or sustained) and its flow (whether bound or free in quality). See, for example, Thornton, *A Movement Perspective of Rudolf Laban*.
85. Sacks, *Awakenings*, pp. 339–349.
86. Sacks, *Awakenings*, p. 344.
87. *Ibid.* p. 344.
88. McIntosh, et al., 'Rhythmic auditory-motor facilitation of gait patterns in patients with Parkinson's disease'; Howe, et al., 'Auditory cues can modify the gait of persons with early-stage Parkinson's disease'; Pacchetti, et al., 'Active Music Therapy in Parkinson's Disease'; Earhart, 'Dance as Therapy for Individuals with Parkinson Disease'.

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WEB RESOURCES

- 1st International Conference on Dance in Health, <http://www.beds.ac.uk/dancescience/conference> (accessed 23.8.11).
- Berg Balance Scale film, <http://www.youtube.com/watch?v=NX2LD5G3BFo> (accessed 28.9.10).
- Berg Balance Scale form, http://www.aahf.info/pdf/Berg_Balance_Scale.pdf (accessed 28.9.10).
- Journal Watch, http://neurology.jwatch.org/articles/Parkinsons_disease.dtl (accessed 4.7.11).
- Parkinson's Disease Quality of Life questionnaire (PDQL-39), <http://viartis.net/parkinsons.disease/PDQ39.pdf> (accessed 16.9.10).
- Parkinson's UK, www.parkinsons.org.uk (accessed 6.7.10).
- Rambert Dance Company *Awakenings*, <http://www.rambert.org.uk/awakenings> (accessed 7.2.11).
- Timed Up and Go film: <http://www.youtube.com/watch?v=7TrtCMYUzno> (accessed 28.9.10).
- Unified Parkinson's Disease Rating Scale (UPDRS) form, <http://viartis.net/parkinsons.disease/UPDRS1.pdf> (accessed 16.9.10).
- Why Dance for Parkinson's Disease?*, documentary, directed by David Bee, written and produced by Olie Westheimer, 2008, URL: <http://markmorrisdancegroup.org/resources/media/2performances/11-why-dance-for-pd>, (accessed 20.10.09).

FOR FURTHER INFORMATION ON DANCE FOR PEOPLE WITH PARKINSON'S THE FOLLOWING WEB RESOURCES WITH FILM AND PHOTOGRAPHS MAY BE USEFUL.

- Channel 4 news item featuring English National Ballet *Dance for Parkinson's* programme, Monday 11 July 2011. From the Green Room text at <http://www.ballet.org.uk/>
http://www.ballet.org.uk/index.php?option=com_content&view=article&id=645&Itemid=453
<http://www.dancebase.co.uk/news/Dance-Base/dance-for-people-with-parkinsons.html>
<http://danceforparkinsons.org>
<http://danceforparkinsons.org/find-a-class/class-locations/united-kingdom>
<http://hapsonline.org/index.php/extensions/dance-class>
<http://www.learntotango.co.uk/argentine-tango-classes.htm>
<http://www.movementforparkinsons.org.uk>
<http://www.musicalmoving.org>
http://www.the-room.org.uk/Tango_for_balance.html