(Re)Viewing myself: exploring exercise participation in middle-aged adults

(Re)Viewing myself:

exploring exercise participation in middle-aged adults

by

Sandra Louise Lee

A Doctoral Thesis submitted in partial fulfilment of the
requirements for the award of Doctor of Philosophy of
Loughborough University

July, 2004

Acknowledgements

Abstract

Research into the determinants of exercise behaviour and behaviour change is moving towards more integrated models to expand our understanding of issues such as why some adults start to exercise and others do not, and why some relapse from exercise. Accordingly, this thesis takes an exploratory, realist and constructivist approach to develop such an understanding of the processes that influence middle-aged adults (non)participation in exercise. A further intention of the thesis is to reiterate and demonstrate previous calls for alternative methods of writing by employing a confessional tale in parallel with the main text which is used to highlight and make transparent to the reader those decisions made throughout the research process which are not always shared with them, but which are important.

A Straussian interpretation of Grounded Theory methodology was adopted to analyse data from 24 focus groups and 11 individual interviews with 81 participants aged mainly between 45 and 55 years. Findings identified a '(re)viewing myself' process that explains exercise (non)participation in terms of the concept of 'self-assessment', which establishes the difference between 'who I am' and 'who I want to be'. A disparity between these may result in an *identity conflict* and possible *resolution strategies* such as change of self and/or others. In accordance with movements in the research methodology literature towards theory integration, this process was also related to existing theories on identity conflict and change, and subsequent hypotheses on the relationship between identity change and behaviour change are suggested.

The *behavioural outcomes* of the '(re)viewing myself' process led to the creation of the 'Exercise Cube', which categorises individuals according to their exercise perceptions, desires and behaviours. Each axis on the cube representing a continuum, thus a different set of barriers, motivators and attitudes that require different interventions if movement across the cube to a more active identity is to be achieved.

The theoretical and practical implications from this research provide a useful conceptual tool that can be used practically to inform future interventions that can be tailored to participants' individual needs. The findings support the continued use of more integrated interdisciplinary models and theories in exercise determinants research.

Contents

List of Figures

List of Tables

"Whenever I feel like exercising, I lie down until the feeling passes"
Robert Maynard Hutchins (1899-1977)

Chapter One: Background to the research

1.1. Introduction

Current estimates suggest that only about 40% of middle and older aged adults worldwide are adequately active for health gains (World Health Organisation, 2001), this is concordant with UK data, that identifies that up to 60% of the middle-aged and elderly population can be classified as sedentary (Hardcastle & Taylor, 2001). Data also suggest that the decline in physical activity participation continues after 50 years of age with progressively larger proportions of adults over 80 years reporting no leisure-time physical activity (King et al., 1992).

The health benefits of exercise for adults of all ages have been widely documented. Research has centred primarily on a wide range of physical benefits and have concluded that aging adults are prone to age-related reductions in muscle mass, power output (Izquierdo et al., 2001) and VO_2max (Bunyard, Katzel, Busby-Whitehead, Wu, & Goldberg, 1998; Izquierdo et al., 2001; McGuire et al., 2001). Many of these studies have found that prescribed exercise training programmes slowed or even reversed these age-related declines, although they differed substantially in the types, durations and length of exercise programme. Other papers have found influences of exercise on a number of physiological variables such as increases in daily energy requirements (Bunyard et al., 1998), reductions in body fat (Bunyard et al., 1998; Cox et al., 2001), decreased resting heart rate (Cox et al., 2001; Kobayashi, Hosoi, Takeuchi, & Aoki, 2001), increased flexibility (Adams, 2001) and reduced blood pressure (Cox et al., 2001; Moreau et al., 2001).

Closely associated with the physical benefits of activity are the psychological ones, notably increased self-efficacy towards exercise (Adams, 2001; McAuley, Bane, & Mihalko, 1995), reduced physique anxiety (McAuley et al., 1995; Sorensen, Anderssen, Hjerman, Holme, & Ursin, 1997) and decreased symptoms of depression (Moore et al., 1999). Reviews in this area have concluded that exercise may help control a number of physical and

psychological problems and changes associated with midlife and menopause including depression, weight gain, loss of muscle mass and bone density and risk of heart disease (McAuley & Rudolph, 1995; Shangold & Sherman, 1998, Shephard, 1995).

Shephard (1995), studying a sample of US adults, found that regular exercise can improve quality of life and enhance independence for a further 10 to 20 years. Significantly, research in a UK context has extended this work by identifying how regular participation in physical activity contributes not only to the enhancement of the physical and psychological, but also the social well-being of individuals (S. J. H. Biddle & Mutrie, 2001). From a public health perspective this is important because, as the most comprehensive recent UK statistics (Department of Health, 1997) have highlighted, there are dramatic increases in longstanding illness which are dependant on age: for example, relating to mainly musculoskeletal conditions, and heart and circulatory problems, there is a shift from 34% in adults aged 35-44 years suffering from at least one longstanding illness to 46% in those aged 45-54 years. This increases again to 62% for those aged 55-64 years. By age 55, 23% of these have more than two longstanding illnesses.

Such statistics reveal that targeting adults aged between 45 and 55 years is likely to be a very useful part of a health promotion strategy looking to establish more positive health behaviours in an adult population that is at risk but not yet suffering from the onset of longstanding illnesses that may impede physical activity. Therefore, increasing the activity levels of adults aged 45-55 years is likely to contribute to the prevention of longstanding illnesses and diseases.

Adults in their 'mid-years' may also be ideal for health promotion interventions as the current generation of adults between their thirties and sixties wield a great deal of influence as the norm-bearers who help form the attitudes of the young (Knox, 1977). Glass and Knott (1984) also point out that the attitudes and policies imparted by the middle-aged today are most likely the attitudes and policies by which those same adults will be judged when they move into the aged population group themselves. Thus, to change

negative attitudes towards health behaviours of older adults in the future, the negative attitudes of the current middle-aged must be changed.

Middle-aged adults are also thought to be an important target group as they make up a large part of the population as the post-war 'baby boom' comes of age (Hartman-Stein & Potkanowicz, 2003), often have more disposable income than previous older generations, often retire earlier than in previous generations and have been found to be keen to exploit whatever leisure time they have in active pursuit of furthering health, interests and/or spirituality (Carpenter, 1992, 1994, 1997).

From a commercial perspective, many practitioners and health club managers now believe that the 45+ age group is an important market segment. As well as being a large target market with disposable income, older adults often use the clubs during quieter times such as weekends and during the day (Krukoff, 2000). Thus, the question facing health promoters and commercial fitness managers is: how can we attract this age group to exercise more? Despite the health issues identified, researchers currently know very little about the perceptions that adults over 45 years have concerning involvement in exercise and physical activity and their attitudes towards future behaviour change (O'Brien Cousins, 2001).

This points to the need for further study of why people might ask such questions as: *Shall I exercise or not?* (the question of exercise adoption) and *Shall I stay or go?* (the question of exercise maintenance). This project investigates the exercise motivations of middle-aged adults, possible causes of relapse and the factors that deter them from exercising.

1.2. Approaches to the issues so far

Although there is an increasing body of literature (Conn, Minor, Burks, Rantz, & Pomeroy, 2003; Trost, Owen, Bauman, Sallis, & Brown, 2002) relating to physical activity and 'older adults', there is little agreement as to what a 'middle-aged' or 'older' adult is. Studies have defined 'middle-aged' as anywhere from 30 – 64 years and 'older' from 50 – 60 years. Elderly is also mentioned and is usually defined as 70, or 75 years and over.

4

This provides a problem when reviewing literature in this area and defining an age criteria for this thesis. Eleven papers reviewed defined middle-aged as 40-64 years. However, there have been definitions suggested that refer to 'middle-age' as being a state of mind, or a life stage, rather than a specific age (2002; Schaie & Willis, 2002). This thesis considers 'middle-aged' to be 45-55 years, as this is a key group that may suffer from increased health problems and decreased activity levels (Dept of Health, 1997), at what is in most instances an 'established' point in their lives as the transitional stages associated with setting up home, career progression and having children are over but they are not yet of retirement age (Carpenter, 1997), hence they differ from studies on more elderly populations

1.2.1. How have these issues been addressed previously?

Approaches taken to measuring and increasing participation in exercise and physical activity have begun to change in the last two decades (Park, 1989). Original research on exercise participation began at the beginning of World War II as the US and UK governments became interested in increasing physical education and fitness to improve the 'health of the nation', particularly as the war effort increased (National Center for Chronic Disease Prevention and Health Promotion, 1996). Since then researchers have begun to realise that relating physical activity to health effectively depends on accurate, precise and reproducible measurements (Wilson, Paffenbarger, Morris, & Havlik, 1986). Results from these found that although it is important to be physically active, the majority of adults in Western cultures are sedentary. The next task was to determine why — something that is still challenging researchers today. The first approach to this problem was to identify variables associated with behaviour and behaviour change.

However, it soon became apparent that promoting the initiation and maintenance of physical activity differs from other health behaviours, such as dietary and pharmacological interventions. Physical activity takes considerably more time and effort to perform than most other preventative health behaviours, plus the individual must perform the activity themselves,

either alone or in a group. Low-fat meals and medication, on the other hand, may be provided by someone else, whilst smoking and other negative health behaviours can be abstained from (Chao, Foy, & Farmer, 2000).

It was also realised early on that physical activity is composed of a complex set of behaviours and is thus a difficult area of study. There does not appear to be a 'one-size-fits-all' recipe for physical activity participation (Chao et al., 2000). Thus, many models have been produced, several that continue to be used today, such as the Health Belief Model (Janz & Becker, 1984), Theories of Reasoned Action and Planned Behaviour (Azjen, 1988; Azjen & Fishbein, 1980), Locus of Control (Rotter, 1966), Self-determination Theory (Deci & Ryan, 1985), Social Cognitive Theory (Bandura, 1986) and the Transtheoretical model (J.O. Prochaska & DiClemente, 1983). These models consist of a large range of variables that have been studied separately and in varying combinations, some of which are discussed below. The methods used to study exercise behaviours and mechanisms for behaviour change have also varied.

It is concerning that given all the time, expense and expertise that has been expended to research why people do and do not exercise, certain populations are still getting increasingly overweight, sedentary and having more health problems. Thus, it is understandable that (in recent years) there has been a shift in the literature away from studying variables and models in isolation to a more integrated approach that utilises research from all areas and combines variables, such as ecological models (Sallis & Owen, 1998) or that uses different methods (S. J. H. Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001) and practices from different disciplines in order to further understanding and influence practice (Epstein, 1998).

Research on the middle-aged age group has only been apparent in the last two decades and is still sparse. However, the work that has been conducted mirrors that published on younger and older adults in its move towards integrated theories and methods that utilise a number of techniques to investigate individual and social beliefs, attitudes and behaviours (King, 1997).

1.2.2. What research designs have been used?

A literature search of the MEDLINE and Psychinfo databases, using the search terms 'middle-aged', 'older adults', 'exercise', 'physical activity', 'adherence' and/or 'determinants', plus searches on suitable related links suggested by the databases, reference lists and searches through personal files resulted in 64 papers being found that related to adults aged from 40-60 years, published since 1990, in English and that related to psychological constructs instead of, or as well as, physiological variables. This was considered to be a comprehensive search although the author acknowledges that searches using other databases that focus on more sociological journals or unpublished material may have revealed additional relevant studies that used alternative research methods.

The papers found related to 58 studies, of which a large proportion (37.9%) were cross-sectional surveys, commonly questionnaires or telephone surveys. Table 1.1 identifies the breakdown of those studies (not papers as some studies had been published more than once) reviewed by method used.

Table 1.1. Methods used in published studies (n=58) between 1990-2003 on middle-aged adults and exercise behaviours.

Method used	%	No.
Longitudinal experimental trial	23 4%	13
Review/theoretical	22.4%	13
Longitudinal survey	1.7%	1
Cross-sectional survey	37.9%	22
Descriptive qualitative study	10.3%	6
Interpretative qualitative study	5 2%	3

The high numbers of cross-sectional surveys and theoretical papers highlights an interest in this area of study although few studies individually adapt motivational interventions, used mediated intervention delivery or integrated multiple frameworks into the intervention (Conn et al., 2003). Van der Bij et al. (2002) also reviewed physical activity interventions for older adults and identified three types: home-based, group-based and educational.

They concluded that these interventions can result in increased physical activity but that these changes are small and short-lived. They also found that the beneficial effects of behavioural reinforcement strategies were not evident. Thus, there is consensus in the recent literature that these trials are too specific in their study variables. This has led to a call for (but as yet limited reply to) more complex trials that take an integrated, holistic approach to behaviour change that examine the interaction between the individual, the social environment and the physical environment.

Martin and Sinden (2001) also point out that it is difficult to generalise adherence rates between randomised controlled trials and community intervention programmes because of the differing methods and research participants used. They also argue that researchers can come to very different conclusions about adherence rates depending on whether their final analyses include or exclude *all* dropouts from the study. Therefore, this study used an exploratory, interpretative approach that takes into account all participants' views and that aims to inform future intervention design more effectively.

There is also an issue when reviewing quantitative studies of those that were carried out but not published because they resulted in null-findings. Sterling, Rosenbaum and Weinkam (1995) cited ten articles that have addressed the issue of the bias against publication of null findings. Their further analysis showed that 95.6% of psychology papers using tests of significance rejected the null hypothesis, compared to 85.4% for medical journals. Hubbard and Armstrong (1997) stated that statistical significance is the entrenched method for evaluating the merits of hypotheses in psychology, despite increasing concerns about its usefulness. They also pointed out that the American Psychological Association's Board of Scientific Affairs is considering phasing out such testing in textbooks and journal articles. They concluded that if a study has been carried out rigorously then a lack of significant findings may be just as informative as statistically significant ones.

Cross-sectional surveys are popular as they are often convenient and time and resource efficient (Caspersen, 1989) They are useful to determine patterns of, and differences between, attitudes and behaviours across

populations efficiently, relatively easily and in a format that is generally acceptable to participants (Caspersen, 1989; Montoye & Taylor, 1984). However, there are a number of concerns associated with the use of surveys in health psychology research. There is also an argument that respondents may like to give the 'correct' answer, as opposed to the one that is most applicable to them, for fear of being judged negatively ('social desirability' effect), or react simply to being assessed (the 'Hawthorn effect') (Kerlinger, 1973).

Technical concerns over the high usage of surveys in psychological research centre around the same methods being used to study human behaviour as are used in the physical sciences. As surveys are designed to be inflexible, they:

> "often seem to result in the fitting of round pegs into square holes. Standardized questionnaire items often represent the least common denominator in assessing people's attitudes, orientations, circumstances, and experiences. By designing questions that will be at least minimally appropriate to all respondents, you may miss what is appropriate to many respondents" (Babbie, 1989).

Burton (2000) also refers to political concerns of surveys that there may be a temptation to present results in particular ways when the research is being funded by a sponsor who is also an end user. This may occur in all research methods although there is more of an ethical responsibility for a qualitative researcher to present their participants' voices in the ways in which the participants intended them to be heard.

As S J.H. Biddle (2000) discusses, cross-sectional surveys have their place, however, "to establish a credible bank of evidence on which to base effective interventions, we need to move towards more diversity in research methods, including randomised controlled trials, large-scale meta-analyses, and in-depth qualitative analysis" (p.3) (this movement towards alternative research styles is discussed further in chapter two). However, despite any move towards more exploratory research methods, the nature of the qualitative studies on this middle-age group have been largely descriptive, rather than interpretative. Most have used content analysis of interview responses, which

is more of a confirmatory, rather than exploratory method, with studies beginning with an a priori hypothesis and pre-defined categories.

It is perhaps for this reason that qualitative studies have often struggled to be published and regularly have their credibility questioned. Attitudes are changing but until recently many of the leading journals were suspicious of qualitative papers and preferred more traditional methods. However, attitudes are not changing quickly. A review published in Medicine and Science in Sports and Exercise in December 2002 on correlates of adults participation in physical activity (Trost et al., 2002) deliberately excluded qualitative reports and case studies but offered no explanation as to why. It is possible that this was due to the absence of an accepted way to include qualitative work in such a review, highlighting the need for new integrative strategies of research to be explored.

Chapter two will describe the epistemological movements towards more 'alternative' methodologies that have been experienced by several disciplines, including sport and exercise sciences. The finding that qualitative methods are only just beginning to be recognised as valuable tools in this research field suggests that it is experiencing the same movement as that seen in the social sciences several years ago. Thus, this study intends to contribute to the development of the epistemological debate in the sport and exercise sciences towards the opinion that it is the question that drives the research methods, not the research tradition as different methods lend themselves to answering different types of research questions.

1.2.3. What variables have been identified and examined?

Given that existing research on middle-aged adults' exercise behaviours and beliefs, has tended to use realist ideals and quantitative methods, there has been a limit to the research questions these designs could answer. The most common design involves studying pre-defined variables and either explaining how they affect exercise participation or attempting to quantify their influence on participation.

Most variables studied (individually or in combination) come from the major models of Social Cognitive Theory (Bandura, 1986), Theory of Planned Behaviour (Azjen, 1988), The Transtheoretical Model (J.O. Prochaska & DiClemente, 1983) and, more recently, Ecological models (McLeroy, Bibeau, Steckler, & Glanz, 1988).

The most commonly studied variables are self-efficacy, perceived barriers, outcome expectations, social support and current health status. Attitudes, beliefs and other cognitive variables have also been studied as personal characteristics that may influence activity behaviour. The cognitive variable with the most support as a determinant is self-efficacy (McAuley & Blissmer, 2000), although that may simply be because this is the most widely studied.

Exercise self-efficacy, or the belief in one's capacity to exert control over one's own behaviour, has now been accepted as a key determinant, however, it does not explain all the variance in behaviour. Indeed, DeBourdeauhuij and Sallis (2002) found that self-efficacy and social influence explained less than 25% of the variance. Thus, researchers now need to use different methods and widen the search for new variables that explain exercise behaviour.

Outcome expectations, the beliefs that benefits will follow a particular behaviour, have been linked with enhancing participation. Exercise outcome expectations include physical and psychological effects, social consequences and internal self-rewards (Dzewaltowski, 1994) but can also be negative, such as fear of injury. Outcome expectations have also been linked to increases in exercise self-efficacy (McAuley et al., 1995).

Perceived barriers have been shown to differ according to age and background. The most commonly cited reasons for inactivity are lack of time, fatigue, inadequate facilities, lack of exercise knowledge and lack of willpower (S. J. H. Biddle & Mutrie, 2001; Vanden Auweele, Rzewnicki, & Ven Mele, 1997). However, some authors have suggested that 'lack of time' may be linked with 'lack of interest' but provide a more socially acceptable response than, 'I can't be bothered' (King, 1997). DeBourdheauhuij and Sallis (2002) found no relationship between perceived available time and exercise

participation but did find lack of interest to be a barrier for both men and women. This could be the most telling conclusion as 'lack of interest' is probably the most honest barrier and implies that for many adults, exercise is just not a priority.

Social influences have been said to be the most dominant on many types of human behaviour (Sallis & Hovell, 1990) from modeling, where an individual bases their behaviour on that of close friends and family and even people in the media, social support from family and friends and distal social consequences, such as an improved social life accompanying exercise-induced changes in appearance. However, social influences are difficult to measure and findings are hard to compare across studies due to the large difference in operational definitions.

Sallis and Hovell (1990) concluded that those who perceive themselves to be in good health are more likely to exercise. Contrary to suggestions in the literature that older adults may be more compliant to exercise programmes due to an increased concern for their health (J. Y. Lee, Jensen, Oberman, Fletcher, & Raczynski, 1996), the importance of health has not been found to be a determinant of exercise by two studies on this age group; neither illness prevention nor improved physical appearance were found to be significant determinants of exercise (Campbell, MacAuley, McCrum, & Evans, 2001; Stead, Wimbush, Eadie, & Teer, 1997).

Other variables that have been shown to be associated with exercise behaviour include person characteristics, environmental characteristics and physical activity characteristics. Again, these have often been studied in isolation but are beginning to be considered in combination.

1.2.3 1. Person characteristics

Demographics such as gender, age, education, socio-economic status and ethnicity have all been shown to be correlates of participation in physical activity (Buckworth, 2000). Biological factors have also been examined, such as genetic differences between individuals (Perusse, Tremblay, LeBlanc, & Bouchard, 1989; Seefeldt, Malina, & Clark, 2002).

Gender differences are consistent across age groups but differ for exercise intensity as significantly more males than females report participating in vigorous activity (Buckworth, 2000; Frankish, Milligan, & Reid, 1998). Education and income are also positively associated with increased leisure time activity. Prospective studies have shown declines in physical activity to be associated with lower education, low income, blue-collar occupations, social isolation, marital status (unmarried), depression, low levels of life satisfaction and less than excellent perceived health (Buckworth, 2000). Intervention studies have also shown non-adherence to structured exercise programmes to be associated with blue collar occupations, smoking, low self-esteem, depression, anxiety and low ego strength (Buckworth, 2000).

Sallis and Hovell (1990) explain that genetic differences may account for different behaviours as genetically endowed tall and lean individuals may find running, for example, 'easy', whilst short, relatively rotund somatotypes may find running considerably more difficult and would be less inclined to do it as it would be perceived as being uncomfortable and possibly embarrassing.

Perusse et al. (1989) examined pairs of biological and cultural relatives and found a significant influence on the level of habitual physical activity such that the drive to spontaneous physical activity was proposed to be influenced by genotype (Buckworth, 2000). However, no genetic effects have been found for structured exercise participation. Seefeldt et al. (2002) also reviewed results from several studies on families and twins and concluded that genetic and/or cultural factors may predispose an individual to be more or less physically active.

Past history of activity during adulthood and previous participation in an exercise programme have been positively associated with exercise and physical activity, although activity history during childhood and at school have not consistently been associated with current exercise participation (Buckworth, 2000; Seefeldt et al., 2002).

Studies have found prior participation in exercise to be a positive exercise determinant for middle-aged adults (Stevens, Hillsdon, Thorogood, & McArdle, 1998; Suter & Marti, 1992). Martin and Sinden (2001) reviewed a

number of randomised controlled studies and found that level of physical activity before starting an exercise trial was a potent predictor of exercise adherence later in the trial; likewise they found that early adherence to an exercise prescription could be a good predictor of subsequent adherence to that prescription.

Vanden Auweele et al (1997) also found that exercise history was an important determinant. They found that 'never exercisers' differed from 'ex-exercisers' because they were more likely to say that sport and exercise were 'irrelevant', 'not necessary' and 'too risky'. Male and female 'ex-exercisers' were also found to differ from each other as male ex-exercisers expressed more negative emotions about participation. The authors suggested that female 'ex-exercisers' should be the most approachable and willing to change as they were more likely to leave open the possibility of some type of physical activity if the right conditions were met. The authors did not go further into the reasons behind this but this general conclusion may prove interesting with further investigation.

Older adults who have had a previous positive experience of exercise are assumed likely to have a more positive perception of exercise than someone who has no experience or even a negative past experience of exercise. Future studies may benefit from separating responses from people with different exercise histories.

1 2.3.2. Perceptions of aging

Mullineaux et al. (2001) found that age was the strongest indicator of individuals who were likely to be active. They found that participation was greatest between 25 and 45 years and decreased rapidly with increased age.

Various theories have been proposed for the decline in activity after age 45, however, none of these have been thoroughly investigated. Seefeldt et al. (2002) proposed that generational or secular circumstances may influence changes in lifestyle. For example, current middle-aged adults were raised in a time of different conditions with different emphases and expectations to present younger adults, such as more on-the-job physical activity,

acceptance of smoking (although this has undoubtedly been negated by recent media and government activity) and a primary role for women in child-rearing. They also point out that the socio-economic status of middle-aged adults has also changed considerably so that current adults in their 50s and 60s often had parents who had minimal formal education and were labourers. They were generally reared in a physically active lifestyle but conditions have now changed with increased social mobility, which may have impacted on their physical activity perceptions and behaviours.

Mullineaux et al. (2001) hypothesised that declines in activity after age 45 may be due to the aging process itself being a deterrent for physical activity. However, this is linked with self-perceptions and perceptions of the aging process, which have rarely, if ever, been studied and may be better being investigated using a methodology that allowed more for theory generation rather than the standard survey design preferred by many exercise psychology researchers. Mullineaux et al. (2001) also suggest that opportunities to participate in vigorous physical activity have increased with an increase in leisure and sports facilities but that these primarily appeal to younger people. They state that it is possible that older generations have had little experience of physical activity other than through walking, physical tasks and occupations. However, although this may be true for current elderly persons, it is unlikely that current adults aged between 45 and 55 years have not had access to such facilities, as many such opportunities have been available for the last twenty or thirty years, even if not to the same extent as at present.

Martin et al. (2000) stated that research suggests that many older people do not identify with negative stereotyped notions of old people. However, their review revealed that older women may be reluctant to try some types of exercise (such as weight training) because they are concerned with being 'ladylike'. They also found that older people may be concerned about the appropriateness of exercise for people of their age, others' evaluations of their physical abilities and how they may appear whilst exercise. However, they argued that these self-presentational concerns can also have a positive effect on exercise behaviour as the desire to change body shape and

physical appearance could motivate older adults to exercise, as could the desire to be perceived and labelled as an exerciser to help them maintain a younger self-identity.

Older women may also have to fight the negative impression that prevailed until the last decade that exercise is 'unladylike' and 'unfeminine' (Chao et al., 2000). Some may argue that this perception still prevails, in which case, what is the solution? Is it necessary to change perceptions of exercise, if so how? By re-branding it with 'friendlier' terms such as physical activity, or by offering enjoyable, tailor-made activities for middle-aged and older adults? Or do the perceptions of older adults need to be altered instead so that it is socially acceptable for older people to wear sportswear, to play sport and to get hot and sweaty?

Brawley et al. (2003) found that the cognitive or attitudinal misconceptions about physical activity (i.e. that it must be strenuous or uncomfortable to be of any benefit) may be exacerbated by the self-serving biases of social comparison where aging adults falsely believe that they are more active than their peers of a similar age. They conclude that this unrealistic optimism may reduce their motivation to become more active.

The question remains: is it that exercise has a poor image among this age group or is it that it just doesn't occur to them to be more active (as found by Vanden Auweele et al., 1997)? If the latter is true then it is possible that respondents simply give 'excuses' when questioned about their activity levels by researchers in order to justify their inactivity, which they may feel guilty about once the purpose of the research is made clear. In other words, respondents want to give the 'right' answer in order to avoid being judged unfavourably, such as being seen as lazy. This requires more investigation by researchers, preferably using open, non-threatening methods, such as observation and individual interviews where the interviewer can build a rapport with the participant and hopefully make them feel comfortable and free to answer honestly without fear of being judged. An interview situation may also be more personal and allow the respondent to feel their views are more valued as the interviewer has made a special effort to talk to them, rather than ticking boxes on an anonymous sheet of paper.

1.2 3 3. Environmental characteristics

Human environment

Researchers have commonly found a correlation between high physical activity support and exercise behaviour (Eyler, 1999) and believe that this may be even more applicable for older adults, particularly women (Hardcastle & Taylor, 2001). However, it has also been suggested that social support may become less important as the behaviour becomes a habit (Eyler, 1999). Studies have also identified a difference between positive and negative social influences on participation, with negative influences being rarer than positive ones but also being as strong or even stronger determinants of health outcomes than positive social influences (Chogahara, O'Brien Cousins, & Wankel, 1998). Chogahara et al. (1998) also found that negative social influences have been reported to be longer lasting and more pronounced over a short period. These negative influences have been neglected by many studies but may be an important barrier to exercise for middle-aged adults. Criticism for spending time away from the family, wasting money, inviting injury etc. may promote drop out from an exercise programme (Sallis & Hovell, 1990).

Thus, social influences are an important determinant for all age groups. Frankish et al. (1998) proposed that the connection between active living and social relationships and support is possibly that the active living provides a vehicle for identification with and commitments to a particular group, social reinforcement and competitive stimulation. This may be true for middle-aged adults, however, identification with a particular group would depend on the presence of that group in the first place, which may not exist if the older adult is surrounded by similarly inactive friends, family and colleagues. Thus, social influences can be a be both positive determinants of activity participation but they can also be a negative determinant, or barrier.

Cultural identities

Brawley et al. (2003) point out that to understand older adults' lack of participation or drop out of physical activity, the influence of the cultural

environment should also be considered. Subcultural differences have been identified as barriers and determinants for activity, such as education and income, marital status and geographical location; there is less evidence about various ethnic and socio-economic subgroups. Brawley et al. (2003) state that beyond unique differences in subcultures are larger, normative influences. They go on to ask if there is a cultural norm to treat aging adults as frail? They cite the example of GPs that do not discuss physical activity with their aging patients and give responses such as 'you are doing fine for someone of your age', meaning to reassure their patients but instead may be reinforcing inactive, unhealthy behaviour. Is it possible that the approaches taken by researchers and practitioners also reflect ageism in their own thinking and research design by assuming older adults to be less capable than younger adults or simply by treating older adults in a different way to younger adults?

Physical environment

Environmental factors have also been shown to influence exercise behaviour. Factors such as climate, terrain and convenient access to facilities may act as cues to exercise (such as nice weather encouraging someone to go for a walk in the park) or barriers to exercise (such as living in a built up area deterring a runner or a high pollen count for hay fever sufferers in the countryside).

However, as Pikora et al. (2003) point out, interest in the physical environment on physical activity is relatively new and the evidence collected to date is limited. Their findings on walking and cycling concurred with previous research that issues related to personal safety, attractiveness of the street/exercise location and the presence of interesting destinations were the most salient determinants. However, the authors also pointed out that some, possibly important, factors were dropped from analysis as they were difficult to measure reliably, such as the presence of dogs, over-hanging trees, graffiti and the fear of other persons.

Buckworth (2000) also found other environmental factors associated with dropping out of an exercise programme to be inconvenient time and/or location. Lack of exercise variety, excessive job travel, injury, medical problems and job change or move. Environmental influences that may be most salient to middle-aged adults include lack of suitable facilities, where they perceive the exercise environment to be uncomfortable, targeted at younger adults or embarrassing, and safety, although this last variable has rarely been studied Lee (1993) found that 34% of women studied were reluctant to go out alone and 33% were reluctant to use public changing facilities.

1.2.3 4. Physical activity characteristics

This chapter uses the terms 'exercise' and 'physical activity' interchangeably as referred to in the reviewed studies. However, this is not strictly accurate, as researchers have defined the terms individually. 'Physical activity' has been defined as 'any bodily movement produced by skeletal muscles that results in energy expenditure' whilst 'exercise' is typically defined as 'planned, structured and repetitive bodily movement undertaken to improve or maintain one or more components of physical fitness' (Caspersen, Powell, & Christenson, 1985).

The characteristics of exercise and physical activity itself have also been reported as a determinant for the behaviour. These include exercise mode, intensity, duration and frequency. The general determinants literature gives no significant effects for frequency or duration on exercise adherence but does give large effects for lower intensities (Buckworth, 2000).

From the age-specific literature examined in this review, no conclusions could be drawn about exercise format or intensity but home-based exercise appears to be favoured by this age group (Atienza, 2001; King, Barr Taylor, & Haskell, 1993; King, Haskell, Young, Oka, & Stefanick, 1995), although one study found participants preferred class-based exercise (Cox et al., 2001). However, all of the studies that found that home-based exercise produced

higher adherence rates were looking at older adults (50+) who, it has already been shown, may feel uncomfortable exercising in front of others.

The majority of community-based interventions have targeted endurance-oriented activities, such as brisk walking, general aerobic movement or conditioning activities either with or without strengthening and flexibility activities. Few studies have examined strength, flexibility and balance training in this age groups although those that have, have reported promising results (Brawley, Rejeski, & King, 2003; King, 2001; King et al., 2000). As Sallis and Hovell (1990) point out, different types of exercises may produce similar physiological effects but may have quite different determinants. They cite examples such as influences on an indoor exercise like stationary cycling may be different from those on cross-country cycling, likewise jogging and aerobics may have different determinants because they have different characteristics and occur in different settings. Thus, they conclude, these differences should be tested.

There has been debate in recent years about the prescription of exercise to all age groups, whether guidelines should be specific about type, amount and intensity of exercise and physical activity or whether people should simply be encouraged to be more active (or even less sedentary; (Brawley et al., 2003; Epstein & Roemmich, 2001; King & Brassington, 2002) in their everyday lives.

Opinion is still divided as to which is the better but some studies are beginning to show that lifestyle interventions that promote structured activity of 30-40 minutes *plus* everyday activities, such as taking the stairs instead of the lift, do not differ in increasing functional capacity in middle-aged adults compared to those subjected to a standard exercise programme (Dunn et al., 1999). This suggests that lifestyle interventions may be just as good at improving health factors as structured exercise interventions but may also be easier to promote to an older population that is reluctant to participate in structured activities. However, this last suggestion has yet to be demonstrated in the literature and also runs the risk of failure in that many adults perceive themselves to be fitter and more active than they actually are (Brawley et al., 2003; Sports Council and Health Education Authority, 1992).

20

Thus, the type of activity prescribed, the duration, intensity and even location of it all may have a profound influence on participation rates. However, this is an area still under investigation. Gauvin (1990) compared motivational features of autonomous exercisers, group fitness programme enrolees, fitness programme dropouts and non exercisers and found that the different types of exercisers displayed different profiles. Both exercise groups participated in exercise for fitness and aesthetic reasons but autonomous exercisers' main likes were related to the exercise itself whereas other exercisers found motivators outside of exercise. Gauvin found that autonomous exercisers made exercise an integral part of their lifestyle requiring little effort to make sure they completed their workout, whereas other exercisers had to 'push themselves' to ensure participation. She hypothesised that people will only pursue an activity they do not really like for a limited period, after which time they abandon it altogether.

This conclusion highlights the problem found by this literature review, that many health promotion researchers are focussing on the health benefits of exercise (i.e. why people should do it) rather than the pleasure effects of exercise (i.e. why they may want to do it). It has been shown that enjoyment of and interest in an activity may influence participation in that activity, however, few studies have looked into different types of exercise and their influences on enjoyment, adoption and adherence (such as walking vs. weight training) (Buckworth, 2000), or on enjoyment in general, which has been proposed to be a determinant of adherence to exercise (Dishman, 1991).

King et al. (1988) found enjoyment to be positively associated with exercise adherence, as did Campbell et al. (2001), although they did not find an association between fun and exercise participation. Just how researchers, or even participants define 'fun' is not discussed, but the authors believed it to be different from enjoyment and concluded that the 'exercise is fun' message may not be getting through to older adults. The idea that older adults are not interested in fun could be questioned! Does Western culture dictate that there is an age at which fun becomes inappropriate? Or possibly 'fun' is just not a term older adults would use, perhaps there is a more suitable term that

21

describes a similar experience. DeBourdeauhuij and Sallis (2002) found no effect of enjoyment on exercise behaviour, which may indicate that sedentary older adults do not perceive exercise participation to be enjoyable. This appears to be a more reasonable finding than a lack of interest in enjoyment and fun.

The findings from the above studies provide support for the notion of intrinsic and extrinsic motivation, where intrinsic motivation describes motives that are concerned with enjoyment and doing an activity simply because the individual wants to, whereas extrinsic motivation involves feelings of 'having to' or 'ought to', i.e. performing an activity for outside reasons such as to lose weight or on the advice from a medical practitioner (Deci & Ryan, 1985). However, few studies have described active participants that take part simply 'for the love of it', suggesting that either exercise is not perceived as being enjoyable or that research is too focussed on barriers and extrinsic motivations.

It is possible that the term 'exercise' and associated activities, such as going to a gym, running etc, are not seen as fun and enjoyable However, other activities that give similar health benefits may be seen as enjoyable but are not considered to be 'exercise' per se, such as playing games, sports or other active hobbies. There has been little research as to the enjoyment levels or perceptions of different types of activities. This may be key for promoting activity levels among older adults.

As yet, no model described and/or tested has been able to account for the majority of variance in exercise behaviour in this age group. Siegley (1998) examined, via a small cross-sectional survey, a combination of personal and environmental factors and found that they explained only 13% of the variance in health behaviours. Adding variables that represented the interaction of social support and functional health and the interaction of social support and self-esteem increased the explanation to 24% of variance. The main variables have been summarised in Table 1.2 that have been studied individually, or in combination, by researchers seeking to understand the determinants of exercise behaviour.

Table 1.2 Commonly studied variables

Variable type	Examples
Person Characteristics	**Demographic variables** Age Sex Education
	Health Behaviours Smoking Alcohol consumption Diet **Cognitive variables** Self-efficacy Perceived benefits Perceived barriers Exercise knowledge Perceptions of aging Historical variables Exercise history
Environmental characteristics	**Human environment** Social modelling Peer support **Physical environment** Facilities Climate
Physical activity characteristics	Intensity Type Duration Frequency

McAuley et al. (2003) looked at a model using self-efficacy, exercise-induced affect, social support and value judgements and found that in an 18 month randomised controlled trial the model accounted for 40% of the variance in 18 month activity levels. Conn et al. (2003) carried out a survey with older women and found that constructs from Social Cognitive Theory, the Transtheoretical Model and the Theory of Planned Behaviour (namely, self-efficacy, outcome expectations, perceived exercise barriers, processes of change, perceived health and age) accounted for 46% of the variance in exercise behaviour.

Difficulties exist in measuring these variables accurately and sufficiently, and in attempting to predict, via statistical modelling the interactions between variables, the direction of interactions and in covering all the variables that influence the behaviour. If these large studies are not able to explain even

23

half the variance in behaviour of relatively small subgroups, then there must be something that they are missing. Whether this is an interaction between the variables, new variables that are yet to be described, or simply an inability to measure accurately all the predictive factors has yet to be determined. Current thinking is that the unexplained variance might be solved by an integrative approach to studying each population.

1.2.3.5 Theoretical integration

The complexity of the growing number of determinants to activity behaviour and the relationships between them have led a number of researchers to call for more complex research methods. Pikora et al. (2003) state that a social ecological approach, encompassing the individual, social environmental and physical environmental determinants is recommended for future research and practice. Frankish et al. (1998) agreed, stating that, "to understand the relationships between active living and determinants of health one must consider both personal lifestyle and surrounding social, economic and environmental factors" (p.287).

Epstein (1998) presented eight models of behaviour change that focus on the different levels of analysis, namely individual, interpersonal and environmental, and argued for the integration of theory across multiple domains to use different explanatory models and use different approaches to further develop knowledge in this area. Satariano and McAuley (2003) also criticised the distinct, and often antithetical, presentation of individual and community-based programmes. They concluded that the study of the interaction of the individual with the environment, although challenging, is potentially more important than the study of the role of the individual or the environment alone.

1.2.4. Summary of the main issues

Although research in the area of the exercise behaviours and behaviour change does seem to be turning a corner towards more integrated models (see Figure 1.1), there is still much debate about the right direction to take. In

order to affect the attitudes and behaviours of the individuals, do we target individuals in order to tailor specific interventions to their needs in the hope that they, in turn, will influence their peers, the community and ultimately society and public policy (such as political revolutions where small groups significantly influence, and even change, public policies)? Otherwise, do we begin by targeting the policy makers that may influence societal beliefs and, ultimately, individual attitudes and behaviours (for example, smoking was once seen as beneficial for health and was a popular activity amongst all socio-economic classes, but mass government health campaigns as to the dangers of smoking, changes in advertising policies, etc. have resulted in smoking becoming a declining pastime for many populations and becoming increasingly socially unacceptable)? Or do we need both?

1.3. Rationale for this thesis

Traditional exercise psychology research methods have failed to sufficiently enhance understanding of exercise behaviour, however a change in direction in exercise determinants research has occurred in recent years, identified in Figure 1.1. This change has manifested itself in a move away from mainly quantitative, cross-sectional surveys and single component studies towards more integrated, theory building (rather than theory-driven) research employing a variety of methods. Accordingly, this thesis takes an exploratory, more realist and constructivist approach to the problem.

Figure 1.1. Recent moves in exercise determinants research

25
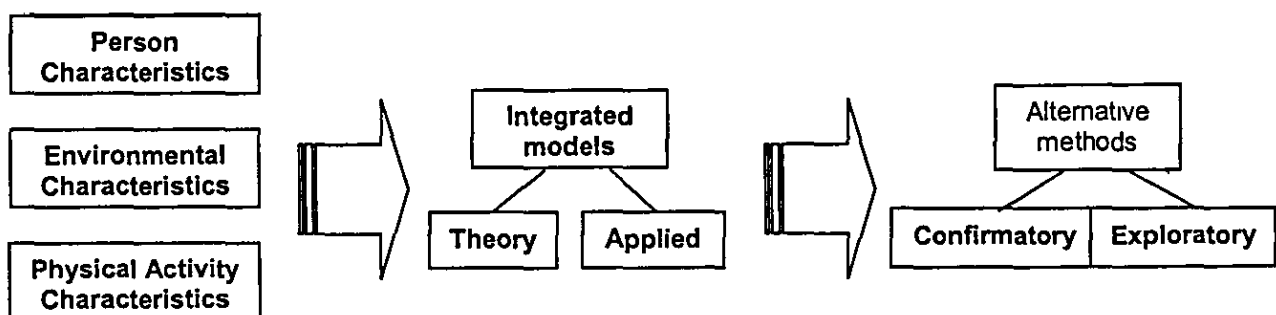
The aim of this research is to investigate:

- what motivates middle-aged adults (defined as between 45-55 years) to exercise?

- why do middle–aged adults relapse from exercise?

- what deters middle-aged adults from exercising?

with a view to better assisting in the planning, marketing and implementation of public and commercial health promotion strategies. Embracing a change in direction of psychology research in this area, the expectation is to reveal new issues and areas for study that will lead to more informed, effective intervention design.

A truly grounded research design would begin with a completely open area of investigation and allow ideas to unfold and questions to be generated during repeated data collection and analysis. Many advocates of qualitative methods believe that the researcher should start with a clean sheet and should not allow their investigation to be biased or 'contaminated' by previous reading (Charmaz, 1990; Glaser & Strauss, 1967; Sparkes, 1998). However, Strauss and Corbin (1998) point out that an open mind does not have to mean an empty head. Most researchers are familiar with the literature in their field and so the issue is not whether to use existing knowledge, but how. Thus, the previous brief review of the literature on middle-aged adults and exercise participation was important as it highlighted a gulf in current knowledge and understanding of the research population. The most appropriate method to investigate the resultant research questions was considered to be a Straussian interpretation of grounded theory and the literature studied prior to data collection provided grounding on which to base the interview structure. The methodological approach of this thesis is discussed in the next chapter, whilst the design of the current research is described in chapter three.

1.4. Thesis structure

This thesis is structured with the introductory literature review above, followed by a brief discussion of the epistemological and methodological positions chosen, a description of the methods, a presentation of the main findings and finally an in-depth consideration of the implications of those findings.

Strauss and Corbin (1998) state that it is not necessary to review all of the literature in the field beforehand as it is impossible to know what the salient problems will be or what theoretical concepts will emerge. This study design allowed the participants themselves to suggest the important issues to be investigated. The addition of salient references throughout the final chapter reflects the use made of the literature throughout the entire research process. As Strauss and Corbin (1998) explain, "the literature can provide a rich source of events to stimulate thinking about properties and for asking conceptual questions. It can furnish initial ideas to be used for theoretical sampling" (1998, p.47).

The layout of this thesis is intended to provide the reader with a feel for the flow of the research process, from data collection and analysis, further collection and analysis, and for the inspiration generated from key papers and discussions with leading academics in various disciplines that led to the outcomes presented.

1.5. Outline of contents

The first chapter establishes the research topic and introduces the epistemological foundations and an argument for a more interpretative, exploratory, qualitative methodology. Chapter two examines further the epistemological and methodological paradigm debate that surrounds several academic disciplines, including exercise psychology, and compares the different developments of this debate between the different disciplines and among the sport and exercise science sub-disciplines. Chapter two will also confirm the epistemological position of this thesis and describe the

background to and procedure of the interpretation of the chosen (grounded theory) methodology.

Chapter three outlines the methods used, including participant recruitment, the development of the interview schedule and the different phases of data collection and analysis. It discusses the limitations and potential problems of the interview methods and will discuss the researcher's previous experiences, opinions and potential biases that may affect the research process. Finally, issues concerning ethical considerations and trustworthiness are addressed.

The main findings and the discussion will be presented together in Chapter four, as is the norm in a qualitative project of this nature, to allow for clarification of the analyses presented and an understanding of the thought processes the researcher went through that resulted in each conclusion being drawn. This chapter focuses on the fundamental process that underpins the participants' exercise behaviours and perceptions. The key categories that emerged from the analysis will be presented, along with reference to relevant literature that inspired or confirmed the findings. The chapter will conclude with an examination of the behavioural outcomes, the different identity 'types' and a brief discussion of each.

The important areas of research highlighted by the analysis presented will be considered in more depth in chapter five. This look at the implications of the above findings will report some theoretical ideas on those findings and develop the work of others that is highly relevant to the key process identified from the data. This chapter will conclude with a discussion of the practical implications of this research and suggest several possible areas for further investigation.

Significantly, in parallel with each chapter runs a narrative tale, adopting an autoethnographic approach. This 'confessional tale' invites the reader to experience the 'behind the scenes footage' and aims to encourage the reader to fully understand the decisions made, and the lessons that were learnt from a personal and academic perspective during the process.

The inclusion of such a piece is intended to add a component typically absent from much published academic work. It is hoped that this will encourage more writers to be frank about obstacles encountered during their own research and readers to question what really goes on during a research project. The author believes that a more open, honest academic community would help avoid the repetition of mistakes, the understanding of the importance of null findings and why they occur, and may encourage more new researchers to expand the work of others as they would be fully aware of the task they are undertaking and would not need to re-learn the lessons already learnt by their predecessors.

1.6. Ethnocomment: How this research came to be

The phone rang. I shouldn't answer my mobile at work but gym instructor's wages being what they are you'll be hard pressed to find one that actually adheres to the rules.

"Sandra? Stuart Biddle here." My heart pounded - this was the guy from Loughborough University, to whom I'd submitted an application for a PhD studentship, but that was months ago.

"Hello", my tone was cautiously optimistic.

"I've been approached by a company that are interested in funding a research project here. I've seen your application and I think you may have the right background to do it. Would you be interested in meeting up for a chat?"

And so the journey began...

Although this thesis has been presented as a realist tale, I would also like to invite you to experience my research journey through my eyes. The self-narrative at the end of each chapter acts as a subplot for the thesis. Both the realist and confessional components stand alone, but also complement each other, providing a different perspective that allow you to gain an understanding of the choices available, the decisions that needed to be made and the subsequent conclusions drawn. As Sparkes (2002) explains: "such writing is intended to show how the particular work came into being and to reveal the dilemmas and tensions contained in the process. The fieldwork odyssey, and the process and problems of coming to know, are the main focus, rather than the findings" (p.59).

The research journey I took was both typical and unusual. This account of that journey is intended to give the reader a flavour of the research process that I went through to arrive at, not just the final destination (this thesis), but to being a fully-fledged researcher.

The margins of acceptability surrounding academic research and writing have become much less clearly defined in the last decade (Frank, 1996). While previously it has been considered inappropriate for authors to include their own voice in their writing, social psychologists are now following the sociologists' lead and taking the opportunity to be explicitly 'self-reflexive' in their research and to explore alternative approaches to interpreting the experiences of others by reflecting on their own lives.

Reflexive writings, combined with this self-narrative depicting my journey, are scattered about my thesis allowing the presentation of the participants' experiences through their own words to encourage the reader to add their own experiences and knowledge into the mix and decide for themselves whether my construction of the processes behind the observed phenomenon are reasonable. My work should be interpreted using a three-way interaction between, you (the reader), the participants of my study and myself (Klein, 1993).

Corresponding to subsequent chapters, my story is divided up into sections which are not entirely chronological due to the fact that some of the research took place before the methodological issues of chapter two were ironed out. However, the aim of these sections is to highlight how the project took on a life of its own whilst I attempted to make sense of it and do my participants justice and thus to describe how my increasing ownership of the task and personal growth as a researcher were intertwined with the growth of the project.

1.6.1. A quantitative beginning

I had been exposed to the paradigm debate during my MSc, in which my dissertation had used a mixed method approach of interviews and a questionnaire looking at the prevalence of and the reasons for repeated exercise and relapse behaviour. Of equal interest to my sponsors and supervisor were my three years spent working in health clubs, first instructing and then managing. I had worked one on one with clients and taught group fitness classes, I also understood many health club issues,

including the problems of member retention as so many people join, come twice and never return. Thus, I had experience of the area of fitness and behaviour change from both an academic and a professional perspective. These combined experiences led me to the initial meeting on Oct 3rd 2001 with Professor Biddle, a couple of staff from the sponsors and a lady from their PR company who had made it all happen.

The brief was simple; the sponsoring health club chain wanted someone to look into why people aged 45-55 years do and don't exercise. They were prepared to pay for a yearlong project initially with a view to extending it later on. I confess I never felt confident about this last claim but went along with it anyway - after all a foot in the door is not be sniffed at.

It quickly became clear that the sponsors weren't very interested in the methods used or the questions asked. They were looking for a PR opportunity to publish articles quoting 'interesting' (if meaningless) statistics and get their name linked with that of Loughborough University, giving them an 'edge' over the competition. This became my interpretation early on (and remains so now) but funding's funding so who was I to argue? (In fact I am curious now to see who sponsors certain research and their motives behind it. I believe that this could cause ethical dilemmas for me in the future as I wrestle with my desire to do good quality, useful research and to get funded for research I consider to be less useful).

As I was only funded for a year, and because the sponsors expected to see a return on their investment quite quickly, I was denied the usual PhD luxury of a long bathe in the literature review to carefully consider the research area, question and design. At the time I knew no better so did not mind, but my resentment of being 'thrown in at the deep end' grew later as I struggled to get to grips with the research area and from watching my fellow research students apparently having a more relaxed time than me. A short dip in some key exercise determinants literature and a plunge into the pool of age-specific research was all I was permitted. From this, the sponsor's interest in the area became my own. Little did I know that it was to be another year before I truly owned my research. I found a large gap in

the literature on this age group and so the plan was devised to develop an exploratory project involving the design and distribution of a questionnaire to people in the age group and come up with some sort of cluster analysis. I confess that this plan came largely from my supervisor and from the pressure to produce fast results for the sponsors. At this stage in my PhD I felt too inexperienced and ignorant to have any real input into the research design.

As no suitable age-specific psychological questionnaires existed, the first plan was to carry out some initial focus groups with exercisers and non-exercisers ages 45-55 years, to establish the key variables that were applicable to their exercise perceptions and behaviours. This filled me with apprehension. On one hand I had carried out interviews for my MSc project so felt reasonably confident that I could do a decent job with focus groups, but on the other hand I felt nervous that I was not really up to doing a PhD. I felt at the time, and for a long time afterwards, that I was a fraud that would soon be found out. My colleagues seemed so much more knowledgeable and confident than me, and the idea of being let loose on real participants and having to account for my ideas, actions and mistakes terrified me. Of course when I got to know these colleagues better I found that most of them felt like I did at the start but that was no consolation two years later.

Thus, only a short time after joining Loughborough University, I had a project prescribed to me and I dutifully set about it. However, the original literature review (carried out in the first two years, in between interviews) is not the one presented here. The original one began with an outline of the exercise determinants literature and focussed on specific research relating to middle-aged adults, their attitudes, behaviours, physical and psychological benefits etc. This review was substantially revised at the end of my second year as I had become more and more frustrated with the repetitious determinants literature. In two years of study I felt I had yet to read anything that was really new. Cross-sectional survey after cross-sectional survey, countless papers on self-efficacy - I started to wonder what it was all about. Then in my end of second year review my panel,

bored of my rantings on the subject and doubtlessly bored by yet another review of the determinants literature, it was suggested I revisit the literature again with my methodological hat on and rewrite my first chapter accordingly. I was thrilled! Okay, a lot more work on a chapter I thought was nearly complete, but now my thesis would flow much better. Now I could place my own work in with that of others: putting my money where my mouth was at last.

"Science is analytical, descriptive, informative. Man does not live by bread alone, but by science he attempts to do so. Hence the deadliness of all that is purely scientific"

Eric Gill, Sculptor, Typographer and Writer (1882-1940)

Chapter Two – Paradigm debates

This chapter extends the critique introduced elsewhere re: the limitations of the 'traditional' methods employed and valued in exercise psychology research. It will examine some of the epistemological and methodological issues currently being debated in exercise psychology and locate these disputes in the timeframes that have occurred in other disciplines. This will clarify the epistemological position of the current research and the chosen methodology.

The debate between the opposing research paradigms is one that has plagued many disciplines such as nursing, education, management, sociology, communications and psychology (Miller & Dingwall, 1997). Fitzgerald and Howcroft (1998), discussing the paradigm debate in Information Systems research, submit that the debate should be recognised as being somewhat vacuous, since each approach has its strengths and weaknesses. "Indeed, if the debate could be resolved, it would have long ago" (p.313). However, they do acknowledge that the debate has played an important role in promoting 'interpretevist' research to a more equal stature to 'positivist' research.

The dichotomies that have characterised the paradigm debate, such as positivist vs. interpretivist, realist vs. relativist, objectivist vs. subjectivist etc. do not operate at the same level of abstraction. Some are more overarching than others, and some are almost synonymous. The dichotomies can be fractured into the different levels of ontology, epistemology, methodology and axiology. These levels are summarised in Table 2.1, although Fitzgerald and Howcroft (1998) acknowledge that this simple categorisation does not adequately reflect the nuances on each side of the table. They cite the examples that realism can be contrasted with both anti-realism and relativism, yet relativism and anti-realism are not synonymous, whilst constructivism can be differentiated from phenomenology, yet both would be classified as an interpretive approach.

Table 2.1. Summary of 'Interpretive' v. 'Positivist' Research Dichotomies (Fitzgerald and Howcroft,1998, p.323)

INTERPRETIVE	POSITIVIST
ONTOLOGICAL LEVEL	
Relativist Belief that multiple realities exist as subjective constructions of the mind. Socially-transmitted terms direct how reality is perceived and this will vary across different languages and cultures.	Realist Belief that external world consists of pre-existing hard, tangible structures which exist independently of an individual's cognition
EPISTEMOLOGICAL LEVEL	
Interpretivist No universal truth Understand & interpret from researcher's own frame of reference Uncommitted neutrality impossible Realism of context important	Positivist Belief that world conforms to fixed laws of causation. Complexity can be tackled by reductionism. Emphasis on objectivity, measurement and repeatability
Subjectivist Distinction between the researcher and research situation is collapsed. Research findings emerge from the interaction between researcher and research situation, and the values and beliefs of the researcher are central mediators	Objectivist Both possible and essential that the researcher remain detached from the research situation Neutral observation of reality must take place in the absence of any contaminating values or biases on the part of the researcher
Emic/Insider/Subjective Origins in anthropology Research orientation centred on native/insider's view, with the latter viewed as an appropriate judge of adequacy of research	Etic/Outsider/Objective Origins in anthropology. Research orientation of outside researcher who is seen as objective and the appropriate analyst of research
METHODOLOGICAL LEVEL	
Qualitative Determining what things exist rather than how many there are. Thick description Less structured & more responsive to needs & nature of research situation	Quantitative Use of mathematical & statistical techniques to identify facts and causal relationships. Samples can be larger & more representative. Results can be generalised to larger populations within known limits of error
Exploratory Concerned with discovering patterns in research data, & to explain/understand them. Lays basic descriptive foundation May lead to *generation* of hypotheses	Confirmatory Concerned with hypothesis testing & theory verification. Tends to follow positivist, quantitative modes of research
Induction Begins with specific instances which are used to arrive at overall generalisations which can be expected on the balance of probability New evidence may cause conclusions to be revised. Criticised by many philosophers of science, but plays an important role in theory/hypothesis conception	Deduction Uses general results to ascribe properties to specific instances An argument is valid if it is impossible for the conclusions to be false if the premises are true Associated with theory verification/falsification & hypothesis testing
Field Emphasis on realism of context in natural situation, but precision in control of variables & behaviour measurement cannot be achieved	Laboratory Precise measurement & control of variables, but at expense of naturalness of situation, since real-world intensity & variation may not be achievable
Idiographic Individual-centred perspective which uses naturalistic contexts & qualitative methods to recognise unique experience of the subject	Nomothetic Group-centred perspective using controlled environments & quantitative methods to establish general laws
AXIOLOGICAL LEVEL	
Relevance External validity of actual research question & its relevance to practice is emphasised, rather than constraining the focus to that researchable by 'rigorous' methods	Rigour Research characterised by hypothetico-deductive testing according to the positivist paradigm, with emphasis on internal validity through tight experimental control and quantitative techniques

Many hold the view that because qualitative research is based on entirely different epistemological and ontological assumptions compared to quantitative research, the validity criteria of the quantitative perspective are

inappropriate (Hammersley, 1992). However, Morse (Morse, 1999) has warned against this view and argued that fundamental concepts such as validity can not be disregarded and called for qualitative researchers to reconsider their position. Sparkes (Sparkes, 2001) responded to this warning presenting four possible perspectives on the validity issue in qualitative inquiry:

- the replication perspective - where methods are chosen with a view to match or at least counteract any threats to the standard criteria of construct validity, internal and external validity and reliability

- the parallel perspective - that assumes that qualitative research represents an alternative paradigm or tradition to quantitative research and thus requires its own set of judgement criteria

- the diversification of meanings perspective - where coherence and pragmatic conceptions of truth are relevant, rather than a correspondence view of true knowledge and any notion of validity is assumed to be socially constructed within specific discourses and communities, at specific historical moments, for specific sets of purposes

- letting go of validity – where the concept of validity is abandoned in favour of alternative criteria with which to judge qualitative research.

Sparkes (2001) suggested that, despite, their differences, coexistence of these perspectives is possible if researchers respectfully acknowledge the differences between alternative forms of inquiry so that each can be judged using criteria that are consistent with its own internal meanings. Whittemore et al. (Whittemore, Chase, & Mandle, 2001) agree, stating that although Lincoln and Guba's (Lincoln & Guba, 1985) translated standards of validity (see chapter three) remain the gold standard, a pragmatic approach would be to match the best method with the specific research questions and issues as opposed to universally advocating a specific approach. They conclude that "although an increasing number of researchers embrace this pragmatic perspective (Miles & Huberman, 1984), the evolution of validity criteria remains in an uncertain state" (Whittemore et al. 2001, p.525).

Sparkes (2001) also concludes that the criteria for judging both the process and products of qualitative research will continue to emerge and will need to be debated along the way. He emphasises that this is a crucial part of the paradigm debate that is currently being experienced within disciplines that are experiencing the rise of qualitative research methods.

2.1. Evolution of the epistemological debates

2.1.1. The Social Sciences

The social sciences have pioneered the paradigm debate around the different epistemological frameworks (Denzin & Lincoln, 1994). Many authors have written about the changes in research approaches using nouns such as 'revolution' or even 'war', "In recent years there has been, depending on your perspective, a paradigm war, a revolution, or at least a major upheaval in the social sciences" (Sparkes, 2002, p 2). Denzin and Lincoln (1997, p.vii) explain:

> "For more than two decades, a quiet methodological revolution has been taking place in the social sciences. A blurring of disciplinary boundaries has occurred. The social sciences and humanities have drawn closer together in a mutual focus on an interpretative, qualitative approach to research and theory. Although these trends are not new, the extent to which the 'qualitative revolution' has overtaken the social sciences and related professional fields has been nothing short of amazing "

This 'revolution' has been documented around five key *moments* that have occurred in the history of qualitative research (1994; 1997). Although a useful approach, it must be pointed out that these *moments* focus almost exclusively on North American research and consequently the timings may differ from European instances which may have been later although this is not definite.

First moment

The *traditional period* began in the early 1900s until World War II. Here, qualitative researchers wrote 'objective' colonialising accounts of field

39

experiences that were reflective of the positivist scientist paradigm and were concerned with offering valid, reliable and objective interpretations in their writings.

Second moment

The *modernist phase* extended through the postwar years to the 1970s and is still present in the work of many. Social realism, naturalism and slice-of-life ethnographies were still valued whilst many texts attempted to formalize qualitative methods (e.g. Glaser & Strauss, 1967). "A new generation of graduate students, across the human disciplines, encountered new interpretative theories (ethnomethodology, phenomenology, critical theory, feminism). They were drawn to qualitative research practices that would let them give a voice to society's underclass" (Denzin and Lincoln, 2000, p.13).

Third moment

By the beginning of the *blurred genres* stage (1970-1986) qualitative researchers had a full complement of paradigms, methods, and strategies to employ in their research. Applied qualitative research was gaining in stature, and the politics and ethics of qualitative research were issues of considerable debate. Research strategies ranged from grounded theory to the case study, to methods of historical, biographical, ethnographic action and clinical · research. Diverse ways of collecting and analysing empirical materials were also available, including qualitative interviewing (open-ended and quasi-structured and observational, visual, personal experience, and documentary methods). Computers were entering the situation, to be fully developed in the next decade, along with narrative, content, and semiotic methods of reading interviews and cultural texts (1998). Several qualitative journals were in place by the end of the 1970s (Sparkes, 2002).

Fourth moment

The mid-1980s saw a *crisis of representation* where research and writing became more reflexive and called into question the issues of gender, class and race. "New models of truth and method were sought ... Issues such as validity and reliability, and objectivity, which had been settled in earlier phases, are once more problematic. Interpretative theories, as opposed to

grounded theories, are now more common, as writers continue to challenge older models of truth and meaning" (Denzin & Lincoln, 1997, p.19).

The Fifth moment

The fifth moment struggled to make sense of the crises associated with representation, legitimation and praxis. Denzin and Lincoln (2000) signalled this period as beginning in the early 1990s.

Sixth and Seventh moments

The sixth *(postexperimental)* and seventh *(future)* moments are currently occurring:

> "Fictional ethnographies, ethnographic poetry, and multimedia texts are today taken for granted. Postexperimental writers seek to connect their writings to the needs of a free and democratic society. The demands of a moral and sacred qualitative social science are actively explored by a host of new writers from many different disciplines." (Denzin and Lincoln, 2000, p.17).

Thus, the social sciences have seen an epistemological movement that has resulted in researchers being able to call upon a range of epistemological and methodological frameworks to answer their research questions. Other disciplines have also been experiencing this change in research direction, although not to the same extent, including information systems, and psychology.

2.1.2. Information Systems

In 1983, the Harvard Business School/ Management Information Systems (MIS) group conducted a colloquium on the state of MIS as a field of study. The Committee identified five subject areas, one of which 'Methodology' attempted to identify and clarify the role of different research methodologies built around five major research methods: qualitative research, experimental research, survey research, mathematical models and software systems demonstrations (Cash & Lawrence, 1989). It is possible that the publication of the output of this colloquium marked the transition of the paradigm debate similar to the second to third moments that occurred in the social sciences twenty years earlier. It can also be noted that this attempt to differentiate

between the different research methods may have stifled the movement through the moments as it also gives the impression that the methods are distinct and incompatible from each other.

However, the publication of a special issue on qualitative research by the Journal of Information Technology in 1998 shows that paradigm debate is ongoing in the Information Systems field. Fitzgerald and Howcroft's (1998) paper from that issue conclude by arguing that it would be more appropriate to recast the debate at a macro level in order to accommodate different research agenda and recognise the strengths within each tradition. These arguments could be seen as similar to those in the third to forth moments described above.

The Information Systems debate is currently centering on resolution strategies that may be grouped into four overall categories, namely, supremacism, isolationism, integrationism, and pluralism (Fitzgerald & Howcroft, 1998, p.12-16):

The **supremacist strategy** seeks to establish one research paradigm as universally applicable and 'best' in all situations, very much in line with the tenets of the positivist tradition. However, if it was possible to establish any research approach to a position of supremacy, it would have been done so long ago, and the paradigm debate would have been resolved well before now. Similar debates on the merits of the different approaches have been conducted, *without* resolution, in other social science fields, for example, marketing (Kavanagh, 1994), and educational inquiry (J. Smith & Heshusius, 1986).

Researchers following an **isolationist strategy** would treat each paradigm as incommensurable and operate strictly according to a particular paradigm, ignoring other alternatives, thus opting for paradigm closure.

An **integrationist** strategy would seek to integrate alternative approaches into a single coherent mode of analysis. Lee (1991) proposes integrating positivism and interpretivism into a single framework consisting of three levels of understanding: subjective, interpretive and positivist. These are seen as inter-related and arranged in a cyclical progression, and Lee

describes how each of these levels of understanding are achieved and influence each other. He also provides a number of examples of research which would satisfy the conditions of the framework.

However, the specific integrationist strategy proposed by Lee has also been questioned (Walsham, 1995). It could be argued that his framework is inherently positivist, albeit indirectly. In the three levels of understanding proposed, the intermediate level of interpretation cannot be bypassed, even by positivist researchers who may view interpretation as a contaminant. Thus, the model may in fact be merely a more accurate reflection of the positivist model. However, interpretivist researchers would not seek to go beyond the interpretivist level of understanding to achieve a positivist understanding anyway.

The remaining alternative is a **pluralist strategy** that would allow for different paradigms to be applied in a research situation. It would also allow for a contingent tool-box approach where different methods with complementary strengths could be used as appropriate. However, not all researchers appear to have converged on a similar definition of pluralism (in fact, somewhat ironically, pluralist definitions of pluralism exist).

The extent to which pluralism has been proposed as a default option also merits consideration, for, if this were the case, there might be little impetus to ensure the strategy is actually viable. Certainly, some forms of pluralism bear a strong resemblance to triangulation which has very definite positivist overtones. In this sense, pluralism does not really depart from the somewhat apologetic and defensive proposal of equivalents of positivist canons (Fitzgerald & Howcroft, 1998).

2.1.3. Psychology

The paradigm revolution in psychology has taken a slightly different route to those observed in the social sciences and information systems disciplines. Psychology is almost going full circle: "Qualitative research in psychology is not new. In psychology's early years it was commonplace: a trawl through the

psychological journals of the 1920s and 1930s reveals many papers which discuss personal experiences as freely as statistical data" (Hayes, 1997, p.1).

Hayes (1997) explains that this position changed with the advent of the behaviourist revolution, which dominated both American and British psychology for many years. Following a somewhat idealised version of physical science, behaviourism emphasised a reductionist approach. Although behaviourism as such was rejected with the advent of the 'cognitive revolution' in the 1970s and 1980s, its methodology, and in particular its emphasis on controlled experimentalism, was retained.

Thus, the insistence on reliability of research findings negated the study of unusual or one-off experiences, while the search for generalisable rules produced an emphasis on normative methods, which, in its turn, negated the study of human experiences that were unique and personal. The outcome was a scientific community in which qualitative research was viewed with deep suspicion.

In recent years, however, another paradigm shift has become apparent as the discipline once again embraces qualitative approaches. An increasing number of psychological conference papers and research projects are incorporating qualitative analyses to augment and enrich quantitative information, and some have eschewed quantitative techniques altogether. "A growing concern about problems of artificiality in research data, together with an equally growing interest in 'ecological validity' and research which is relevant to the problems of society, have produced a realisation that qualitative techniques may have a great deal to offer" (Hayes, 1997, p.2).

Thus, psychology has had its own 'moments' that could be likened to those experienced in the social sciences. Each phase of psychology's history has left its mark on its methodology, ranging from the quantitative surveys and experimental techniques of the behaviourist school, to the clinical interviews which was the legacy of Piaget in the 1950s and the ethological methods which evolved in developmental and comparative psychology during the 1960s. Hayes (1997) concludes that it is too soon to label the present period, but the growth of interest in qualitative research is strong.

2.1.4. Sport and Exercise Psychology

Sparkes (2002) examined the moments described by Denzin and Lincoln and concluded that the time span of these is difficult to apply to sport and physical activity, as qualitative forms of inquiry remain relatively 'new kids on the block'. He gives the example that the third moment (blurred genres) between 1970 and 1986 encompasses the period in the 1980s when debates about qualitative research first began to emerge and qualitative articles first began to get published in journals associated with sport and physical activity.

The issue is further confounded by the fact that qualitative research within the various subdisciplines of sport and physical activity has developed at different rates. Sparkes (2002) gives the example that, in terms of the issue of validity, qualitative researchers in sport psychology, during the late 1990s were operating in what Denzin and Lincoln (1994; 2000) describe as the second (modernist) moment, and that the moments of blurred genres and the crisis of representation had yet to make their mark. In contrast, in sport sociology and physical education, there are signs that during the early 1990s the forth moment, which heralded the crisis of representation and legitimation along with the influences of postmodernism, began to touch these subdisciplines and has continued to touch them with increasing urgency in recent years.

It could be argued that exercise psychology has now moved towards the third moment (blurred genres), particularly with the publication of new journals and the increasing acceptance of qualitative papers in established journals. Biddle's editorial of the new journal, Psychology of Sport and Exercise, in 2000 pleas for diverse forms of research illustrates this movement:

> "Cross-sectional surveys have their place, and some will be
> published in PSE. However, if we want to establish a credible bank
> of evidence on which to base effective interventions, we need to
> move towards more diversity in research methods, including
> randomised controlled trials, large-scale meta-analyses, and in-
> depth qualitative studies." (S. J. H. Biddle, 2000, p.3)

Thus, the exercise psychology journey through the paradigms has mirrored the sociological one documented by Denzin and Lincoln (2000) to some

extent, although it has lagged behind. It has also been paralleled, although untouched, by the debates taking place in the business disciplines and has been clearly affected by the movements in psychological research. The incorporation of many sociology-based ideas into exercise psychology research has led to many researchers experimenting with different qualitative methods. Denzin and Lincoln (2000) claim that the sixth moment, the postexperimental, is already with us in the disciplines they speak of, the fictional ethnographies, ethnographic poetry, and multimedia texts are today taken for granted, however, Sparkes argues that this is not the case in sport and physical activity; "Indeed, if it were, there would be little point in my writing this book!" (Sparkes, 2002, p.7).

The good news for qualitative researchers in the sport and exercise disciplines is that the social sciences have already done the hard work, thus the moments described are occurring more rapidly, although at different rates within the sub-disciplines. Exercise psychology, in particular, appears to have had a 'split personality' as it struggles to find its own identity within either the social sciences and/or psychology. The domination of 'hard' research methods have shown a preferred leaning towards psychology although exercise psychology has struggled to be recognised as a discipline in its own right. Indeed, the British Psychological Society have only recently re-designated sport and exercise psychology as a division in its own right (British Psychological Society, 2004). The emergence of social psychology as a separate discipline has opened doors for new exercise researchers to merge ideas from sociology and psychology, although, as described above, the different routes each discipline has taken over the decades have resulted them being in different places now methodologically.

However, some researchers are attempting to integrate the different factions of the sport and exercise sciences and the publication of books such as Sparkes' (2002) qualitative journey through the representational tales and the organisation of conferences such as the First International Conference for Qualitative Research in Sport and Exercise in Liverpool, UK, in 2004 indicate this. However, it may be several years before cross-referencing occurs between major disciplines such as sociology, psychology and management

46

as a new generation of researchers seek to reap the benefits of lessons others have already learned in other fields of research.

2.2. The subsequent methodological debate

The above section dealt with the *epistemological* debate, i.e. the issues surrounding assumptions about the basis for knowledge. This is often confused with the *methodological* debate, which deals with the theoretical analyses defining a research problem and how that research should proceed, which again should not be confused with issues concerning the *methods*, that is, the strategy or technique that is actually adopted (Henwood, 1996). This section discusses the methodological debate that exists in exercise psychology and leads to a discussion of the main method used in this thesis.

Bryman (1988) described the quantity-quality debate as the 'technical' and the 'epistemological' respectively. This summary of the methodological and epistemological debates is summarised in Figure 2.1. The technical (methodological) version of the debate involves the choice of numerical methods, such as questionnaires, or non-numerical methods, such as interviews, based purely on pragmatic considerations, such as the availability of time and resources. The epistemological version of the debate, however, considers data collection, analysis and interpretation to be carried out within some broader understanding of what constitutes legitimate enquiry and warrantable knowledge. This latter version leads to the two paradigm positions: the quantitative view (experimental, hypothetico-deductive, positivist and realist) and the qualitative view (naturalist, contextual, interpretative and constructionist) (Henwood, 1996).

47
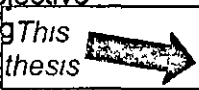
Figure 2.1. Technical and epistemological versions of the quantity-quality debate (after Bryman, 1988).
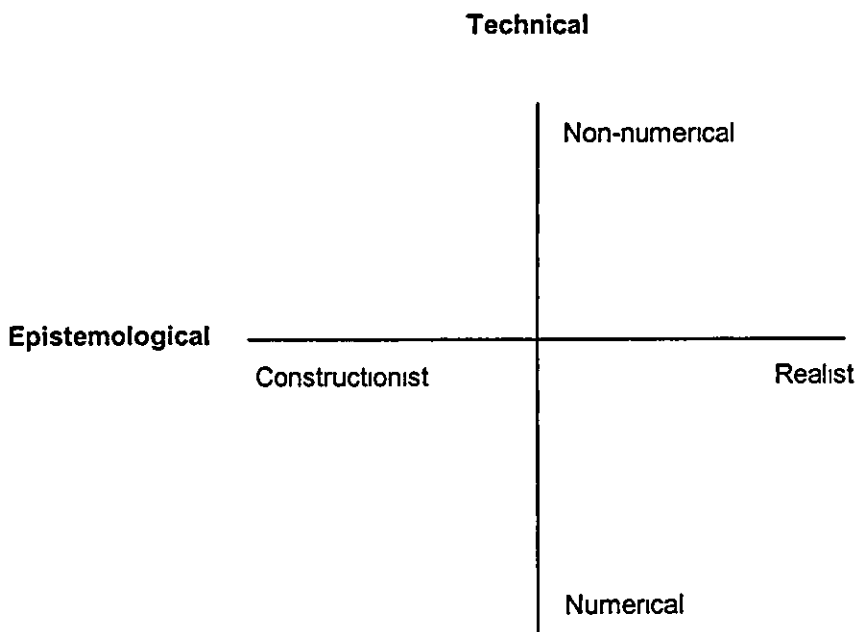
However, the methodological debate is not simply qualitative versus quantitative. Just as quantitative researchers would resist the charge that they are all 'positivists', there is no agreed doctrine underlying all qualitative social research. Instead there are many 'isms' that appear to lie behind qualitative research methods: for example, interactionism, feminism, post-modernism and ethnomethodology (Denzin & Lincoln, 1994). This means that qualitative research can cover a vast range of research styles (Silverman, 1997).

Henwood (1996) identified three different strands within qualitative psychology, shown in Table 2.2. Each of the rows represents a paradigmatically linked strand of inquiry, whilst column one shows how each of these strands justifies qualitative research, column two traces shifts in epistemological position from empiricism to contextualism to constructionism, and the third column shows the way that research questions and analytical principles are related.

Table 2.2. Three strands of qualitative enquiry (after Henwood, 1996).

Broad strand	Epistemology	Methodological principles	Methods and examples
Strand I Reliability and validity	Empiricism	Discovery of valid representations(using induction)	'Data display' model (Miles & Huberman, 1984) Content analysis (Krippendorf, 1980) Protocol analysis (Ericsson & Simon, 1980)
Strand II Generativity	Contextualism	Construction of intersubjective meaning *This thesis* →	Grounded Theory (Glaser & Strauss, 1967) Ethogenics (Harre & Secord, 1972)
Strand III Discursive and reflexive	Constructivism	Interpretative analysis (highlighting deconstruction of texts)	Discourse analysis (Edwards & Potter, 1992; Potter & Wetherall, 1987) Narrative analysis (Gergen, 1985)

Strand I appraises research by means of standardised analogues of the criteria of reliability and validity, strand II is research that aims to generate new theory that is as the same time firmly grounded in the participants' own accounts and in substantive domains, whilst strand III represents research that focuses analytically on the reflexive functions of language, which construct representations of 'objects' in the world and which have material-discursive effects (Henwood & Pidgeon, 1992). This thesis established an epistemological position that is based in strand II but that has leaning towards strand III (see Table 2.2) as it uses a Straussian approach to grounded theory but also includes an autoethnographic account of the research process.

The qualitative methodologies shown in Table 2.2 have a number of similarities: they tend to be concerned with meaning, i.e. they are interested in how people make sense of the world and how they experience events.

However, Kidder and Fine (Kidder & Fine, 1987) distinguished between two types of qualitative research: 'Big Q' refers to open ended, inductive research methodologies that are concerned with theory generation and the exploration of meanings, whilst 'little q' is the incorporation of non-numerical data collection techniques into otherwise quantitative designs, such as open-ended questions in a structured questionnaire. 'Little q' works 'top-down', i.e. researchers using this method start with a hypothesis and pre-defined categories and check off their qualitative findings against this using content analysis. 'Big Q' is bottom up where researchers seek to engage with the data in order to gain new insights into the ways in which participants construct their experiences and meanings. Much of the early qualitative research in exercise psychology was 'little q', but this has paved the way for more 'Big Q' methods to be experimented with, such as this thesis.

Although chapter one began with a critique of the domination of quantitative methods in exercise psychology research, the author does not wish to dismiss quantitative methods. As Silverman (1997, p.14) explains, "It is inaccurate to assume that quantitative and qualitative research are polar opposites...there are no principled grounds to be either qualitative or quantitative in approach, it all depends upon what you are trying to do. Indeed, often one will want to combine both approaches". The current position in exercise psychology appears to mirror that of Information Systems and related disciplines that are calling for a pluralist approach to research, rather than pitting theories and methods against each other (Fitzgerald and Howcroft, 1998).

2.3. Grounded Theory

The current research used an exploratory qualitative design that analysed the data using grounded theory methodology, of which a 'Straussian' interpretation (Strauss & Corbin, 1998) was adopted. The following section outlines a brief history of the origin of the methodology used and details its application in the research analysis.

Two sociologists in the 1960s, namely Barney Glaser and Anselm Strauss, first developed grounded theory (Glaser & Strauss, 1967). They felt that methods available at that time did not allow for theory generation via interplay from data to theory and that excessive reliance was placed on the quantitative testing of hypotheses derived from a small number of grand theories, typically using surveys and other statistical approaches that, they argued, led to empirically poor abstract theories (Henwood & Pidgeon, 2003). Thus, they developed their own method of analysis that sought to close the 'embarrassing gap between theory and empirical research' (Glaser & Strauss, 1967, p.viii).

In developing grounded theory, Glaser and Strauss (1967) formalised a range of principles, methods and tactics in a systematic method for shaping 'ill-structured' qualitative data, although they may also be applied to quantitative data. The theory given allows experienced and new researchers to conduct qualitative research efficiently and effectively as it helps structure and organise data collection and analysis, although critics have said it to be too vague and imprecise for new researchers to use effectively (Charmaz, 1995). The name grounded theory was chosen to express the idea of a theory that is generated by (or grounded in) an iterative process (Pidgeon, 1996).

When Glaser and Strauss parted company in the late 1980s they took the method in different directions and researchers now have the option of a Glaserian or a Straussian interpretation (or indeed their own) (Charmaz, 2000). This thesis has adopted a Straussian approach.

The Straussian interpretation of the grounded theory method involves the systematic collection, sorting and making sense of unstructured material through a series of steps (Strauss & Corbin, 1997). Initially the researcher works through the data developing an open-ended indexing system of codes that refer to both low-level concepts and to more abstract *categories* and *themes*. Categories are the grouping together of instances that share central features or characteristics, for example, references to 'enjoyment', 'fear' and 'anxiety' could be grouped together under a category heading of 'emotions'. As the analysis progresses, the researcher will identify categories at a higher

level where the categories are analytic rather than descriptive (Charmaz, 1995). For example, references to having little free time, to having other hobbies and interests, and to exercise being potentially harmful could be categorised as 'excuses' if they appear to be being used to justify participants' inactivity.

Categories are identified by *codes* that are produced in the early stages of analysis when descriptive labels are attached to discrete instances of phenomena. This tends to produce a large amount of low-level categories at first, which can be systematically integrated into meaningful units as the research process progresses to a more analytical stage (Henwood & Pidgeon, 2003). It is advised (Strauss & Corbin, 1998) that categories be grounded in the data by using *in vivo* labels, i.e. they should use words and phrases used by the participants themselves. This will help prevent the researcher importing existing theory into the analysis (Willig, 2001) (An example of the preliminary coding and subsequent paradigm models are shown in Appendix F).

A concurrent stage of analysis is that of *constant comparison*, which is the principal analytic task of continually sifting and comparing elements, such as basic data instances, new categories and theoretical ideas, throughout the project to sensitise the researcher to similarities and differences in the data (Pidgeon & Henwood, 1996). The ultimate goal of constant comparison is to link and integrate the categories so that all instances of variation are captured by the emerging theory (known as 'saturation') (Willig, 2001).

Another way grounded theory develops the emerging theory is to look for *negative cases*. Instances that do not fit, are equally important for qualification and enhancement of the theory. For example, analysis is also moved from the descriptive to an analytical level via *theoretical sensitivity*, where the researcher asks questions of the data, makes comparisons and looks for opposites in order to fully interact with and understand the data (Strauss & Corbin, 1998).

Depth and density of the theory are two goals of grounded theory, thus *theoretical sampling* is advised. This is where the researcher returns to the

field to collect further data in light of findings that have emerged from the analysis (for example, Appendix D shows the changes in the interview schedules between research phases). This allows them to check emergent theory against observed reality by sampling incidents that may challenge or enhance the ideas. Data collection and analysis are intended to be an ongoing, dynamic process throughout the project and are a critical part of the whole approach. Ideally, the above process ceases when *theoretical saturation* has been achieved, i.e. no new categories can be identified and variations between existing categories no longer emerge (Pidgeon & Henwood, 1996, 1997; Willig, 2001).

Charmaz (1995) summarises the main features of grounded theory as: 1) simultaneous involvement in data collection and analysis, 2) creation of analytic codes and categories developed from that data, not from preconceived hypotheses, 3) the development of middle-range theories to explain behaviour and processes, 4) memo-making, i.e. writing analytic notes to explain and fill out categories (this is a crucial step between coding data and drafting reports), 5) theoretical sampling designed for theory construction rather than to be representative of a population, and to check and refine the analyst's emerging theory, and 6) delay of the literature review until after analysis is complete to avoid 'contamination' of the research process and an imposition of existing theories onto the data.

The above description of the method is just a summary of the procedures listed, however, it is not intended to be prescriptive. As more studies have been published using grounded theory it has become apparent that the method can be interpreted and applied in a number of different ways. Indeed, even the creators of the approach parted ways after disagreeing on the nature of grounded theory and how it ought to be practised. Thus, a number of versions of the method have emerged, although they are still referred to as 'grounded theory', therefore it is important to bear in mind that 'grounded theory' has become an umbrella term for a number of interpretations of the analytical technique (Willig, 2001; Charmaz, 1995; 2000).

Grounded theory provided a systematic, but malleable method of analysis for qualitative research. The grounded theory approach is qualitative in relation

to Bryman's technical numeric/non-numeric distinction. However, Pidgeon and Henwood (1997) argue that the approach also sits comfortably upon a positivist epistemology as it implies that a "set of social or psychological relationships exist objectively in the world, are reflected in qualitative data, and are therefore to be 'captured' by any researcher who chances to pass by!" (1997, p.254). This comment requires criticism from any researcher who has 'chanced to pass by' a set of data and has attempted to analyse it using a grounded theory method as it is not such a simple task. As Glaser (2002) argued, in his response to constructivist revisions of grounded theory (see section 2.3.1),:

> "GT is a perspective based methodology and people's perspectives vary ... Multiple perspectives among participants is often the case and then the GT researcher comes along and raises these perspectives to the abstract level of conceptualisation hoping to see the underlying or latent pattern, another perspective. This becomes complex, which core variable analysis organizes to reduce the confusion to an integrated complexity." (para 6)

However, the Straussian form of Grounded Theory, that this thesis adopted, has been outlined in a useful book (that Glaser objected to) (Strauss & Corbin, 1998). This 'manual', although rejecting the positivist position that theories are simply waiting to be discovered, does provide a tool to help researchers construct theory from their interpretations of the data (Strauss & Corbin, 1994). Thus, despite its sociological roots, grounded theory has become popular in other fields, including psychology and business.

Willig (2001) questions its suitability for such research as she points out that the method was developed to study social processes, thus she argues,

> "... when applied to the nature of experience, as opposed to the unfolding of social processes, the Grounded Theory method is reduced to a technique for systematic categorisation ... the result is a systematic map of concepts and categories used by the respondents to make sense of their experience. While such a map may provide us with a better understanding of the structure of our participants' experiences, it does not, in fact, constitute a *theory*" (p.46).

She concludes that this descriptive, rather than explanatory exercise demonstrates that research questions about the nature of experience may be

more appropriately addressed using phenomenological methods, such as participant observation, whilst grounded theory techniques should be used for the study of social psychological processes. However, Willig appears to be referring largely to Glaserian Grounded Theory in her critique of the method, which is not used in this thesis (although she is not explicit). Glaser (Glaser, 2002) refutes this assessment and argues that his method of grounded theory is not descriptive as the unfolding is emergent from the constant comparative method and theoretical sampling. He states that these are not story making, rather, they are generating a theory by careful application of all the grounded theory procedures.

Willig's opinion can also be opposed as grounded theory, as outlined by Strauss and Corbin (Strauss & Corbin, 1994), uncovers the *processes* behind the participants' experiences, both social and psychological, where relevant. Thus, the analysis can indeed explain experience rather than just describe it. Grounded theory, as described above, can also be categorised as a phenomenological method so again her opinion can be questioned. Once again, the appropriateness of the method chosen and its application must be related to the question being asked of the data and the nature of that data, rather than the academic discipline the question was born in.

Grounded theory has also been criticised as it describes concepts and categories as *emerging* from the data whilst the researcher is encouraged to approach the data with an open mind, no preconceived ideas, in order to produce a theory that is truly grounded in the data (Henwood & Pidgeon, 1996; 1997). Grounded theory was originally described as involving the discovery of theory from data. Willig (2001), amongst others, points out that the use of the term 'discovery' suggests that the researcher uncovers something that is already there. Thus, the role of the researcher is played down The concept of 'emergence' of categories and theory also plays down the creative role of the researcher during the research process. However, Glaser (2002) argues that these statements are "unbelievably wrong" (para 12), he explains, "categories, which are concepts, are not wondrous gifts, they come from the tedium of the constant comparative method linked with sensitive theoretical sampling and are constantly fitted to the data (para 12).

Nonetheless, Henwood and Pidgeon (1996; 1992; 2003) prefer the term 'theory generation' to describe the constant interplay between data and the researcher's developing ideas. Thus, several researchers (Charmaz, 2000, Henwood & Pidgeon, 2003; Willig, 2001) have addressed the problem of lack of reflexivity in the method and have argued for a constructionist revision of grounded theory.

2.3.1. A Constructionist revision of Grounded Theory

A contructionist revision of grounded theory allows the researcher to "create an explication, organisation and presentation *of* the data rather than discovering order *within* the data" (Charmaz, 1990, p.1169). This version seeks to capture the creative and dynamic character of the research process. Here, the researcher's decisions, the questions they ask of the data and the way they use the method are considered, as well as their own philosophical stance, personal experiences, priorities and values.

Pidgeon and Henwood (1997) recommend researchers using this method should thoroughly document each phase of the research process in order to increase reflexivity to demonstrate how the researcher's thoughts and actions have shaped the research. Pidgeon (1996) also alerts us to a practical criticism of grounded theory, that is the difficulties some researchers face in theorising beyond the everyday phenomenal worlds and local interactional contexts of their data and research question. He argues that a constructionist revision shows the researcher that the data should *guide* but not *limit* theorising.

Charmaz (2000) explains that objectivist grounded theory accepts the positivistic assumption of an external world that can be described, analysed, explained and predicted, although an objectivist grounded theory is modifiable as conditions change. It assumes that different observers will discover this world and describe it in similar ways. She agrees to some extent, "to the extent that subjects have comparable experiences (e.g. people with different chronic illnesses may experience uncertainty, intrusive regimens, medical dominance) and viewers bring similar questions,

perspectives, methods, and subsequently concepts to analyse those experiences" (2000, p 524). However, she also points out that objectivist grounded theorists often share assumptions with their research participants and argues that it is perhaps more likely, they *assume* that respondents share their meaning.

However, Glaser (2002) has dismissed the view that the contructivists' revision corrects the objectivist, positivist leaning of most grounded theory studies, stating that it actually only remodels the grounded theory position and 'corrects nothing that needs correcting' (para 33). Glaser also explains that constructivism depends on the data and is more applicable to studies using structured interviews to provide their data. He feels that advocates of this revision of his method miss the fact that the grounded theory focus is on the conceptualisation of latent patterns in the multiple participants words. Glaser concludes that Charmaz et al.'s understandings of "abstractions involved in theoretical coding, substantive coding, delimiting, theoretical sampling, etc, etc, are missed, neglected or quashed in favour of qualitative data analysis methods and descriptive capture" (para 9).

However, rather than dive into an argument over 'which is best', Ashworth (2003) points out that the distinction between a *perceptual* and a *constructionist* outlook is not absolute. He states that qualitative psychology may regard language use either as something which reveals the lifeworld (the perceptual tendency) or as something to be investigated in its own right (the constructionist tendency). However, he also argues that although the *perceptual* and the *social constructionist* tendencies seem rather distinct in their understanding of the human condition and the purpose of qualitative research, in fact there are overlaps. Once again, the object should be to use the appropriate method to uncover the processes behind the observed phenomena (the data) rather than to use one method over another because it is considered to be 'better'.

Social constructionist versions of grounded theory are a relatively recent development and it is not yet clear whether they will require more than a recognition of the active role of the researcher in the research process. Pidgeon (1996) suggests that the revision implies a move towards a more

discursive form of analysis (e.g. Potter & Wetherall, 1987) where certain elements of grounded theory, such as constant comparison, may serve as a vehicle for a form of deconstructive analysis. Willig (2001) agrees that this constructionist perspective may have to theorise the role of language in the construction of categories, which, in turn, would mean engaging with the role of 'discourse'. However, whether this would mean a transformation of the method such that it is no longer recognisable as a version of grounded theory remains to be seen.

This thesis was carried out using a Straussian interpretation of grounded theory, but acknowledged the need for the author's own experiences, biases, character etc, to be outlined, as expressed by the Constructivists above. Thus, this thesis provides a rare combination of two research styles that also required different forms of presentation that at first was quite problematic.

2.4. Crisis of representation

Like Denzin and Lincoln's (1997) fourth moment, this thesis saw its own 'crisis of representation' in attempting to depict the research findings in a satisfactory style, but also in combining two different writing styles. The compromise chosen incorporates both a realist and confessional tale told side by side that complement, rather than contradict, one another. This is currently an unusual step in sport and exercise psychology research although the present movement towards an increasing repertoire of research and writing styles has made this possible.

2.4.1. Realist tales

The written reports of qualitative research take a variety of forms across the disciplines. However, the most common one in exercise psychology is that of a *realist tale* (Sparkes, 2002), where the author takes a position of authority and are absent from much, if not all, of the text (Glesne & Peshkin, 1992; Van Maanen, 1988). These tales are characterised by extensive, closely edited quotations that are used to convey to the reader that the views

expressed are authentic and representative remarks of the participants lifted directly from the transcripts, as opposed to the views of the researcher.

One criticism of realist tales is that when attempts are made to represent multiple participants, the text tends to portray people as 'flat', unidimensional, highly stable and predictable characters, rather than multidimensional 'rounded' characters (Sparkes, 2002). This thesis acknowledges this and has attempted to minimise this by the presentation of examples of individual cases in the appendices (Appendix E). However, Sparkes (2002) also suggests that realist tales connect theory to data in a way that creates space for participants voices to be heard in a coherent text. "When well constructed, data-rich realist tales can provide compelling, detailed, and complex depictions of a social world" (2002, p.55).

The main body of this thesis is told as a realist tale that is largely author evacuated and uses the participants' voices to illustrate the observed phenomena and to explain the processes behind their exercise behaviours.

2.4.2. Confessional tales

In contrast to the realist tale told in the main body of this thesis, a *confessional tale* is also present as a subplot for the main text. Whilst the realist tale hints at the author's presence, their stance, their ethics and own agenda, the confessional tale foregrounds the voice and concerns of the author and takes the reader behind the scenes of the methodological discussion provided in the realist tale (Sparkes, 2002). The author in a confessional tale portray themselves as a human being who makes mistakes, but who eventually 'learns the rules' (Glesne & Peshkin, 1992). As Van Maanen (1988) states: "Accompanying the confessional tale is the simple assertion that even though there are flaws and problems in one's work, when all is said and done it still remains adequate" (1988, p.79). The intention of this tale is to provide transparency for the reader about the entire research process and decisions made during that process. Although the confessional and realist tales contrast one another, they also complement each other, as

the research process is unmasked, thereby making it easier for other researchers to replicate or advance the research presented.

2.5. Chapter summary

The prevalence of qualitative research has grown significantly over the last few decades in many research disciplines such as the social sciences, business and psychology. So much so that some have labelled it a 'revolution' (Denzin and Lincoln, 1997; Sparkes, 2002). This revolution has also affected the sport and exercise sub-disciplines that are seeing an upsurge in qualitative research publications and conference presentations but at different rates.

This thesis takes a contextual empirical stance but has leanings towards constructivism as it acknowledges the presence of the author throughout the research process. The grounded theory method adopted by this thesis sits comfortably with more 'traditional' positivist ideals of exercise psychology, as it has empiricist roots (Glaser & Strauss, 1967) and has been adapted to provide rigorous systematic analysis (Strauss and Corbin, 1998), but also embraces a qualitative epistemology that allows for interpretative analysis and a reflexive position of the author (Pidgeon, 1996). In other words, grounded theory, although it can be prescriptive, can also be adapted to the researcher's own epistemological perspective as long as that perspective is transparent in the presentation of that research.

To acknowledge recent calls for methodological pluralism in exercise research (S. J. H. Biddle, 2000; S. J. H. Biddle & Mutrie, 2001; Sparkes, 2002 etc.) this thesis has also experimented with a less traditional confessional tale to complement the realist tale that tells of the grounded theory process and outcomes. These two tales, told side by side, give the reader a complete picture of the research process, the decisions made and the conclusions drawn. It is hoped that the honest presentation of 'both sides of the story' will allow other researchers to take equally bold steps in the presentation of their own research, and ultimately to advance the field of exercise participation research.

2.6. Ethnocomment: Self and epistemological reflection and discovery

After conducting several interviews I found that if interviewing is the "fun part" then transcription is the price to be paid. The bane of a researcher's life is data entry and endless hours of deciphering others' speech whilst cringing at your own dulcet tones transmitting from headphones is enough to make anyone question their career path. Nevertheless many hours later, I was rewarded with a pile of transcriptions, a head buzzing with ideas and a load of rich data.

Initial plans were to use a form of content analysis (Maycut & Morehouse, 1994) to inform the questionnaire design, as I had done in my masters' project. Time pressures encouraged me to analyse as I went and I began searching through the transcriptions of the first exerciser focus groups before the final non-exerciser groups were even arranged.

Although I was aware I was lacking in skills in this area of qualitative analysis, just re-reading through the scripts and picking out recurring themes through basic coding suggested to me that this data should not be treated as lightly as it was being. The more I read, the more I learned about these people; the more I learned, the more I wanted to learn; and the more my enthusiasm for their stories grew, the more reluctant I became to condense it all down to a few key points, file the rest and begin the questionnaire design. I began to realise that my ambitions for the project were changing, and with it my own ambitions as a researcher were changing too. Like a confused teenager experimenting with different styles but not knowing where she fits in, I was going through a paradigm debate. Eventually I would have to face the reality of 'coming out' as a qualitative researcher in an otherwise quantitative group, but for now I remained confused as I sought the answers that would relieve my angst.

So, I had a pile of data, a bunch of codes and reams of questions about it all but little clue as to what I was going to do with it. Confusion reigned. By

now I had begun to consider myself a researcher, or at least I wanted to be one and not be exposed as the fraud I was still afraid I might be (although less so than previously), so I took solace in the library and after a few well-spent hours trawling the qualitative 'how-to' texts, I settled on Strauss and Corbin's (Strauss & Corbin, 1998) guide through the grounded theory method. Here was a book that provided a step-by-step tool that, with a little perseverance, could be accomplished, if not mastered, relatively effectively by a novice such as myself. I began to get excited. I was standing on the edge of an adventure into qualitative research. I never had been turned on by numbers – too many excluded outliers and boundaries. How can 95% confidence be something worth reporting but 94% not? How can you control for this and that variable, normalise your data, exclude this because it confounds the results and then present your analysis as truth? It never sat well with me. I've never trusted statisticians, accountants or anyone else that lives their lives by numbers - too much room for manipulation in my opinion; changing the data to fit the theory. Going through my own paradigm debate in this way was like a wave of relief. I was discovering my own research orientation.

Throughout my limited time spent as a researcher (three years to this point) it had seemed unnatural to me to study and describe people the same way a physical scientist would describe atoms and molecules. People are not objects, we are not predictable and as I continued with my reading I repeatedly found myself being frustrated with the apparent reliance on generalised surveys, experimental designs that never asked the participants how they actually felt, the studies that turned people into numbers, stripped individuals of their identities, emotions and peculiarities and seemed to dehumanise the participants. Now, feelings, emotions and opinions, expressed by words, that I could get my teeth into. Everyone knows I talk too much - words are my thing! I did, of course, face the problem of coming out to my supervisor. How would he feel about my preferred research design? Would I be outcast? Told to change my ways, that it was just a passing fad? I had to come up with a strategy. I decided

the best plan was to educate him, to make him see how serious and passionate I was about this methodology.

2.6.1."Coming out" as a qualitative researcher

I took my textbooks and my exerciser transcripts and codes and set to work. It really wasn't as easy as Strauss and Corbin would have me believe. My early attempts resulted in a development of exerciser 'types'. I didn't know why these people behaved differently but I could see definite distinctions in perceptions and attitudes between those that exercised often and a little, those that loved it and those that did it because they had to, those that wanted to and those that didn't. I ended up with what could be described as a sort of qualitative cluster analysis. It was this that I took to my supervisor.

It worked! A few neat, symmetrical diagrams and the argument that the chosen method (Grounded Theory - GT) had its roots in positivism to an extent and provided a structured framework and set of rules for me to follow settled his caution towards qualitative techniques. I like to think that my enthusiasm for the richness of the data and my stubbornness to not let it go (along with a healthy disdain for questionnaires) also persuaded him that Grounded Theory was the right way forward, for me and my project anyway. However, although sympathetic and pleased to offer practical advice and support, he admitted to having little practical knowledge or understanding of my research orientation and so our relationship changed at this point and as time passed he distanced himself from me methodologically.

My fears had been realised. I had outcast myself from the group, our branch of it anyway. I found little in the way of expertise to help me in this journey – the psychologists swore by their anonymous statistics and the sociologists used far too many long words. Each had their own agenda and power of 'their knowledge' that I couldn't relate to, so it was back to the office, back to the books and back to moving coloured bits of paper around the floor.

My journey into the different qualitative methods has continued throughout the course of my research, and will probably dominate my career. I read countless papers, have experimented with different writing styles, went to several workshops and talked to anyone that would listen. Each time I would be inspired by new (to me) ideas, full of enthusiasm and determined to incorporate each idea into my research and each time I would return to earth with a bump as I returned to the positivist surroundings of my office with all their talk of multi-level statistical analyses and communicated in languages I no longer understood. At least this kept my feet on the ground and I was able to distance myself and decide which methods were more appropriate for my needs. It was all useful stuff but a very confusing time for me.

My breakthrough came at the end of my second year when my Director of Research pointed me to the thesis of a former PhD student of his. Dr Mike Waring's doctorate had developed Straussian Grounded Theory and developed a helix model to describe the process. I still found this confusing so traipsed up the other end of the country to meet with him as he kindly agreed to give up a couple of hours of his time for a perplexed PhD student from his old institution.

The meeting was invaluable to me as I went away with one key word ringing in my ears - 'process'. Mike had quickly deduced that the analysis I had done so far focussed too much on outcomes - the what, rather than the processes that caused those outcomes - the why. This meeting proved a turning point in my analysis and I was further rewarded when Mike joined the staff at Loughborough and agreed to join Stuart as a supervisor for my thesis.

The following months saw me really get my head around my data using Straussian Grounded Theory. Using a combination of qualitative software to manage my data, coloured post-it notes and an A2 notepad for brainstorming and creating ideas, my analysis really took shape until it reached the 'final' stage presented in chapter four.

However, my reading did not stop there. My discovery of Charmaz (Charmaz, 1995) and Henwood and Pidgeon's (Henwood, 1996; Henwood & Pidgeon, 2003; Pidgeon & Henwood, 1996, 1997) theories on Contructivist approaches to GT led me to further explore ideas of reflexivity and interpretative elements of analysis. I had kept a 'rough' research diary throughout my study, more for personal interest at first, and it was this that I returned to now in order to explore my own interests and biases and what impact that may have had on my research. My evolution from gym manager/quantitative novice to fledgling Grounded Theorist has been a fascinating journey, one I hope to continue to evolve for many years.

"Nobody who followed the scientific method ever discovered anything interesting"
Paul Weiss, Biologist (1898-1989)

Chapter Three: Method

Chapter two established the epistemological position and method adopted in this thesis and explored the analytical style used. This chapter details the research procedure, in chronological order, and outlines changes in approach taken as the research question demanded a re-direction of the initial strategy.

3.1. Design

Focus group interviews were the main method of data collection. These were chosen initially to give an overview of the basic issues concerning this age group to be addressed by the subsequent research. Focus groups are considered more appropriate to elicit responses that better reflect the social reality of the participants (Patton, 1990). They are also low cost, rich in data and can stimulate the participants and lead beyond the answers of a single interviewee (Flick, 2002), thus they were selected as a useful way to explore a new research area.

The interview guide was flexible and the choices given to participants were not restricted to the interviewers framework, viewpoint and beliefs (Madriz, 2000), to allow the participants to dictate the important areas of discussion. However, focus group interviews do have the limitations that willing participants can be difficult to find (particularly people that have no interest in the subject area) and that time constraints restrict the number of questions and subjects it is possible to address. Note-taking and/or recording can also cause logistical and ethical problems such as unreliable equipment, difficulties in distinguishing voices and confidentiality issues.

3.2. Participants

Figure 3.1 summarises the data collection techniques and the number and type of participants involved. Participants were selected using a convenience

purposive sampling strategy, recruited from health clubs, places of work and through social groups. Participants were considered as 'Exercisers', 'Relapsers' or 'Inactives':

- 'High users', were regular users of a private health club and had been for at least six months previously, who exercised (gym/classes/sport/swim) at least three times a week for a minimum of 20 minutes a session.

- 'Low users' were members of a private health club but had used the club no more than once or twice per week in the previous six months.

- 'Over 50s' were regular attendees of an over 50s exercise class and also took part in other forms of exercise and physical activity during the week, meeting the minimum exercise guidelines (American College of Sports Medicine, 1990).

- 'Relapsers' were former health club users that had left the club at least six months previously and had not been engaged in any other regular exercise since.

- 'Inactives' took no regular structured exercise (i.e. gym/running/cycling) but may have engaged in occasional activities such as walking short distances to work or sporadic leisure activities.

The definition of non-exercisers (Relapsers and Inactives) is problematic as this thesis was concerned only with structured exercise. Therefore, it is possible that these participants were sufficiently active for health through daily activity (although none had particularly active jobs and did not claim to be active). It is also possible that these participants had an active identity due to occasional hobbies such as mountain climbing or skiing that were not performed sufficiently enough to qualify them as an exerciser but that significantly influenced their perceptions about exercise behaviours.

The data collected on the over 50s class participants was included in this study, despite falling outside of the 45-55 year criteria as these participants provided useful information about perceptions of aging, perceptions of

specific exercise classes and exercise formats in general for older adults and for social factors, such as social support from classmates. It is possible that including this data may have affected the overall results of the younger adults but the author feels that this data enriched, rather than skewed the resultant theory.

Figure 3.1. Summary of entire research process

Preparation

- Preliminary reading
- Devised initial research topic
- Designed interview schedule using Sallis & Hovell's (1990) model

Phase One

Data collection

18 focus group interviews with 70 participants:

12 Exerciser groups.
- 6 High users (n=23)
- 3 Low users (n=13)
- 3 Over 50s (n=14)

3 Relapser groups (n=9)

3 Inactive groups (n=11)

Data analysis
Initial content analysis and coding to uncover key themes and issues for further exploration
Intention at this stage was to devise a questionnaire based on findings

Phase Two

- Revision of research question using analysis from phase one
- Revision of interview guide

Data analysis
Further coding and theme building using Strauss & Corbin's (1998) framework

Data collection
9 individual interviews with non-exercisers
5 Inactives
4 Relapsers

Data analysis
Final revision of research question and confirmation of necessary method to answer that question (i e Grounded Theory)

81 participants in total.
Male female = 30 51, mean age = 62 3 (49 8 excluding over 50s groups)

Phase Three

Data analysis

- Review and recode of *all* data using Strass & Corbin's (1998) framework
- Testing of emergent theories
- Searching for missed categories
- Analysis – theory development
- Key category identified
- Analysis – testing of revised theory
- Theory confirmation using original data
- Further literature review and application to findings

- Writing of enthnocommentary from research diaries

- Write up

70

Figure 3.1 depicts the data collection and analysis as carried out in stages. These will be presented in the rest of this chapter as distinct stages for clarity of explanation, however, the process was more cyclical than this and stages of data collection and analysis were often carried out concurrently and, therefore, often influenced each other. The resultant findings presented in chapter four are the outcome of all of the analyses carried out in the three phases.

3.3. Phase One

The initial aim of the research was to carry out a mixed methods study designed to explore the exercise behaviours of middle-aged adults. Phase one consisted of 18 focus groups involving 70 participants across the categories described above at various locations throughout the UK. These focus groups were intended to inform a quantitative research design, however, the research questions brought up by the participants necessitated a different research design to eventually be adopted in phases two and three. This chapter will outline the (rather unorthodox) research path taken.

3.3.1. Procedure

Using a purposive sampling strategy (see Silverman (Silverman, 2000) for further discussion) to identify participants in each of the above categories, potential participants were either identified from the health club databases, canvassed at the exercise venues or responded to requests for participants among inter-company emails. These different strategies resulted in different types of respondents, such as individuals or couples that didn't know the other participants at the health clubs and groups of colleagues at the workplaces, who did know each other. Each focus group had its own dynamics, which were difficult to predict, however, it was considered more important that each was a lively discussion and produced interesting data (Oates, 2000).

Participants were invited to participate by letter and follow-up phone call. All participants were told the nature of the research when they were initially asked to take part. This may have given them a preconceived idea about what the research was about, what questions they may be expected to ask and even what kind of experience they were likely to have, however, participants claimed they had no such preconceived ideas before interview.

A 16-item questionnaire was sent out to all participants prior to the focus group discussion (Appendix B). The items included were also based on Sallis and Hovell's (1990) model of exercise determinants and were intended to assess personal and demographic variables such as body mass index (BMI) and education level as well as health behaviours such as smoking status. This also set the scene for the interview and allowed participants to consider some subjects beforehand, although it may also have given them concerns about the nature of the questions (many people joked about how honest they were regarding how much alcohol they consumed per week?). The results of the questionnaire are shown in Appendix C and demonstrate the demographic and self-perceived health profiles of the participants.

All focus group interviews took place in suitable locations (i.e. quiet, comfortable and convenient (Oates, 2000)). However, the location of the interviews may have affected both the researcher's experience of the interview and the participants' reaction to her and the interview situation. Exercisers and relapsed exercisers were interviewed mainly in the participants (former) health clubs, whilst non-exercisers were interviewed either in their place of work or their home. This affected the content of the interview as interviews in health clubs focussed on the specifics of that club and discussion about exercise tended to be referring only to exercise carried out at such a club. Interviews in places of work were more formal and respondents referred to work as the main barrier to exercise as it was the salient identity operating on them at that time. Interviews in respondents' homes were more relaxed and they often referred more to their families, as it is the salient identity in the home environment.

The focus groups lasted between 45 and 90 minutes and were, with permission, audiotaped and transcribed verbatim. Each focus group

contained between three and six participants, were held at different locations and discussions were allowed to develop their own direction. It is acknowledged that these factors meant that each group had very different dynamics and that this could have affected the data collected, although this is regarded as an advantage.

Although the group dynamics may have differed between single-sex, strangers, friends, married couples etc. and data collected may have been different if the focus groups had combined exercisers and non-exercisers in the same groups, the focus groups did provide a forum for debate. "Focus groups are useful when it comes to investigating *what* participants think, but they excel at uncovering *why* participants think as they do" (Morgan, 1988). Morgan explains that they achieve this because the participants, not only discuss their views and experiences about the topic, but also clarify to the other members of the group why they hold those views. However, Oates (2000) cautions that focus groups are artificial situations and that the data gained are not completely natural as the groups are deliberately constructed for the purpose of gathering that data. Some members of the groups were dominant, whilst others remained quieter. The researcher tried to get everyone to speak but some people appeared to feel intimidated. More in-depth information may have been obtained from individual interviews and more rapport may have been built with people individually.

There were more exercisers than non-exercisers interviewed as they were more willing to participate. As well as data from the health clubs that confirmed the number of visits to the club, self-reported activity levels were used to distinguish between exercisers and non-exercisers. Concern has been expressed about self-reports (Ainsworth, Montoye, & Leon, 1994; Armstrong & Welsman, 1997) as these may not have been accurate as people are often not as honest (deliberately or otherwise) as they could be, or are misleading as the interviews referred to structured exercise, not everyday activity, such as walking to work, which some people may not consider to be 'exercise' per se

Inactive participants were difficult to access and were the most likely to feel they were being judged. Some took part because they thought they might be

inspired or be given the opportunity to get fit, some did it as a favour to the researcher or to a friend, some for money. It is possibly that these motives for participation affected the type of people that took part and the quality of the data gathered.

3.3.2. Development of Interview Guides

The interview guide was designed using variables from Sallis and Hovell's (1990) Model of Exercise Determinants based on Bandura's (1977) Social Learning Theory. This use of the literature in guiding the research question and design is encouraged by Strauss and Corbin (1998) who, whilst discouraging the researcher from being "so steeped in the literature that he or she is constrained or even stifled by it" (p.49), state that a researcher can turn to the literature to formulate questions that demonstrate the overall intent of the research, although new areas will emerge.

Initial topics covered were based on the framework provided by two major literature reviews (Buckworth, 2000; Sallis & Hovell, 1990) namely person characteristics, such as psychological, cognitive and emotional factors, self-efficacy, attitudes and self-presentation, environmental determinants including the human environment (social influences) and the physical environment (e.g. facilities) and physical activity characteristics (such as the preferred type of exercise). Participants were also asked about their perceptions of the terms 'exercise', 'physical activity' and 'sport'. These were added given the initial nature of the project and the original sponsors who were keen to explore these terms that are often used in health club marketing and health promotion strategies to determine what images these terms conjure and which, if any, may attract or repel participants from taking part.

The discussions were semi-structured and, thus, questions varied from group to group according to the participants' responses. Broad, open-ended questions were used along with further questions to clarify or probe. The interview guide is shown in Appendix D. However, initial conversation was encouraged before recording took place to 'break the ice' and the first

questions asked were non-threatening and general to allow participants to 'warm' into the discussion before more in-depth questions were asked.

The researcher's own experiences, values and interests may also have guided the questions asked during the focus groups. Jones (Jones, 1988) states that "an interview is a complicated shifting, social *process* occurring between .. individual human beings, which can never be exactly replicated" (p.48). She also explains that interviewers use their 'bias' creatively and contingently to develop relationships with particular people so that they can tell them about their world and be understood. Thus, the researcher is used as a research instrument as they try to empathise with other human beings. No other research instrument can do this. Jones (1988) also emphasises that it is crucial that researchers choose their actions with a self-conscious awareness of why they are making them, what effects are likely to be upon that relationship and whether their own theories and values are affecting the understanding of the respondents.

Thus, in the interest of transparency, it should be noted that the researcher was previously a fitness manager and has seen people relapse from exercise many times. She has also seen people go to the gym but not actually do much, leaning on a machine chatting for an hour but leaving thinking that they could go and sit for the rest of the day and eat what they liked. This led her to question the effectiveness of the modern health club as a health promotion facility. Her experiences whilst working at health clubs also led her to believe that many modern clubs are motivated much more for profit and actually seek to have members that do not use the facilities, rather than providing a good service that will retain members She often encountered resistance to member-retention strategies from the club management as they were considered too expensive or time-consuming The researcher was acutely aware of these opinions during the research process and worked hard to remain objective whilst analysing the data but did allow her experiences to influence the data collection.

Pilot group

The background questionnaire and interview guides were tested during a pilot focus group of six High Users, which resulted in the decision that the wording and length of each was appropriate. Concurrent with a grounded theory method, the interview schedule did change over the course of the study as focus groups introduced new topics and ideas, and as each group differed in its dynamics, which were then explored in subsequent groups. The pilot also allowed the interviewer to develop her interview skills, which undoubtedly improved throughout the course of the study and may have affected the quality of the data gained from early interviews. The data obtained from this pilot were rich and have been included in the analyses reported here.

3.3.3. Analysis

Analyses were conducted using principles of the grounded theory approach described by Strauss and Corbin (1998). At this stage all analysis was done by hand. Transcripts were initially coded, which involved extracting abstract concepts from each line of transcripts and grouping them by preliminary codes. Grounded theory involves 'constant comparison' of the data, which requires the researcher to ask questions about the data and to make comparisons between the codes. This leads to an emergent set of themes, which are then identified within the data, refined and related to one another until saturation of themes is achieved. Eventually a key theme is created to which all other categories could be related. This allows the development of a theoretical account of the phenomenon being studied that is empirically grounded in the data. These themes provide the structure for the analysis and interpretation of data (Strauss & Corbin, 1998).

The researcher's personal values and beliefs may also have affected the analysis of the data and therefore must be acknowledged. Strauss and Corbin (1998) emphasise that it is impossible to be completely free of bias, but it is important to recognise when our own biases or beliefs are intruding into the analysis. The researcher brought many personal beliefs to the

76

project, including a belief that exercise is important for health and happiness, a belief that people who don't exercise often find socially acceptable 'excuses' to justify their inactivity and a belief that being thin does not equal being fit.

3.3.4. Trustworthiness

Lincoln and Guba (1985) argue that establishing trustworthiness of the research lies at the heart of the conventional positivist criterion of validity and reliability. They list the four questions traditionally asked of such research as truth value (internal validity), applicability (external validity), consistency (reliability) and neutrality (objectivity) and go on to criticise qualitative methodologists that attempt to sustain a commitment to the criteria (LeCompte & Goetz, 1982) since they depend on the axioms of 'naive realism and linear causality' (1985, p.294). Instead, Lincoln and Guba propose their own four-point criterion for naturalistic researchers shown in Table 3.1.

Table 3.1. Lincoln and Guba's translation of terms (from Seale, 1999, p.45)

Conventional Inquiry	Naturalistic Inquiry
Truth value (Internal validity)	Credibility
Applicability (External validity)	Transferability
Consistency (Reliability)	Dependability
Neutrality (Objectivity)	Confirmability

Credibility

Credibility was achieved in this project through the large number and variety of participants interviewed, through constant review by academic peers of the analysis and reports generated, and through the search for negative cases that challenged and demanded reformulation of the emerging hypotheses.

Finally, credibility was ensured through 'member checks' (Seale, 1999) where a sample of participants were given summaries of the preliminary findings to comment on and were asked to apply the suggested model (see chapter four) to themselves. The exercise types (see chapter four) they gave themselves matched those given by the researchers.

Transferability

In grounded theory studies, the theory developed is designed to have 'explanatory power' (Strauss & Corbin, 1998), which means 'predictive ability', that is the ability to explain what might happen in a given situation, in this case exercise behaviour of the middle-age group. However, as discussed in chapter two, a grounded theory also aims to provide a set of hypotheses and concepts that can provide a framework for other researchers. Qualitative researchers (and indeed many quantitative researchers) should not generalise from their data to the wider world (Charmaz, 1995), rather, the data is related *to* the wider world. Thus, the substantive theory offered in this thesis does not have the explanatory power of a larger, more general theory but provides a starting point for further studies to develop their own substantive theories and the subsequent merging of theories to generate a larger, general theory.

Dependability

An audit trail was created at each stage of the coding process that included memos containing the developing ideas to enable other researchers to see how interpretations have been made and why and to understand the role of the researchers in the interpretation of the data. This was regularly examined throughout the research process by academic peers.

Confirmability

The audit trail also helped establish confirmability as it provided the reflexive element to the study. This reflexivity is shown in both the current chapter as an explanation of procedure and the ethnocommentary that runs parallel with the main presentation of the research. It is almost impossible for a researcher to remain completely neutral, objective and 'trustworthy' (Sparkes, 2002). However, this transparency conveys to the reader the researcher's own

experiences, opinions and preconceptions prior to and throughout the research, and also to allow the reader to understand the decisions and choices made throughout the research process.

3.3.5. Ethical considerations

The ethical issues in this project were twofold: Firstly the practical issues listed by the British Psychological Society's code of conduct, ethical principles and guidelines (2000) of competence, consent, confidentiality, and personal conduct were addressed as participants were informed of the clear nature of the research and what their participation would entail prior to agreeing to take part. The university ethical clearance checklist was also completed and logged. Participants were sent an informed consent form (Appendix A) along with a detailed letter instructing them of their right to withdraw and assuring confidentiality. Permission to audiotape the interviews was requested prior to beginning and participants were reminded at the start of each interview of their right to withdraw, review the tape afterwards or request comments be removed. At the end of each interview the researcher supplied her contact details and invited requests to see the final report prior to publication. The purpose of the research was also often discussed at this time as interviewees tended to be interested. Personal information, such as age, weight and health behaviours, were obtained on an optional questionnaire that was completed prior to interview.

However, initial procedure for gaining access to the participants was called into question as the health club involved provided the researcher with a list of their relevant member's contact details. This was felt to be a breach of the data protection act by some members and so procedure was changed accordingly whereby members contacted the researcher voluntarily in response to a mailing or personal invite from the health club staff.

The second type of ethical issue concerns the worthiness and content of the research and its effect on the participants (Miles & Huberman, 1994). The researcher was clear about the aims of the research (the study of middle-aged adults exercise behaviours and perceptions) and participants tended to

agree that this was a worthwhile topic. Many felt that theirs was a neglected age group and were glad of the opportunity to voice their opinions and concerns. However, many of the focus group discussions with members and ex-members of the health clubs had more of an emphasis on the club itself, it's advantages and disadvantages and many participants were of the opinion that it was an opportunity for them to change the club. Although the researcher made it clear that she did not work for the club and could only provide recommendations to the management (which were provided in the form of a report), it is possible that participants were disappointed later on if their suggestions and complaints had not been addressed by the health club itself.

Although the participants were aware of the purpose of the research, it was impossible to forewarn them about the content of the interviews, as this could not be anticipated. Each interview was different and new topics often arose. Although the intended subject matter was not considered too personal, some participants did choose to reveal intimate details about previous experiences such as medical operations and family details. It was considered that as the participant had brought these topics up that they must have felt comfortable discussing them and these points have been included in the presentation of the findings where relevant.

The benefits of taking part in the research varied between participants. Some were rewarded financially, others with refreshments. However, there were also personal benefits for some who discussed gaining a personal insight into their own perceptions and behaviours, demonstrated by the quote, "now I know why I come, because I enjoy it!" *(P, female High User, aged 54)*. Some participants were clearly glad of the opportunity to be listened to and appeared to enjoy sharing tales of previous successes, discussing their children or simply to seek a sympathetic ear for an unfortunate plight. Some focus group participants mentioned using the group as a way of meeting like-minded people and expanding their social group. Some of the females invited others to join them at a particular class or at least said that they would now have someone else to say hello to. The researcher hoped that for some, if

not all, participants, the effort invested in taking part was reciprocated either physically or psychologically, although this would be very difficult to measure.

Finally, issues of honesty and trust (Miles & Huberman, 1994) were addressed as the researcher was open about her own background and professional interests. However, she did choose not to disclose her professional experience of being a fitness instructor to inactive participants, as she did not want them to feel they were being 'judged'. Trust issues also arose when writing up the analysis and presenting verbatim quotes. The researcher attempted to present each quote in the context it was originally said, although it is acknowledged that each reader may interpret each quote differently. When presenting the results of the research, the researcher found it useful to imagine the participants involved and to anticipate their response to the writing. Again, member validation assisted with this.

Thus, the ethical considerations of a study of this nature are wide and far-reaching. It was impossible to predict each one beforehand but the researcher attempted to avoid discomfort by being as empathetic as possible to the participants and by being as open and upfront as possible during data collection, analysis and presentation.

3.4. Phase Two

The initial analysis had suggested a definite research area of exploration which, it was felt, could not be satisfactorily covered using a quantitative approach. Thus, once preliminary ideas had been developed using the above procedures, a second phase of data collection and analysis was carried out to test the ideas generated from the initial phase, to add richness to the data and to refine the research question.

3.4.1. Participants

Eleven individual interviews were carried out with relapsed exercisers and Inactive participants (as described above).

3.4.2. Procedure

Participants were obtained through advertisements on company websites and newsletters and through word of mouth from the researcher's contacts. Other procedures, including recruitment and informed consent were as described in section 3.3.1.

Individual interviews were chosen, rather than focus groups, for this phase to allow for more in-depth questioning of each participant to explore ideas generated from phase one and to glean new topics for exploration that may not have arisen in a group discussion. The problems of location were the same as for the focus groups. The individual interviews took place in either the meeting room next to the researchers office (i.e. her 'territory'), the participant's office or their home (i.e. their 'territory'). Again this may have affected their comfort with the interview situation and the responses they gave given the visual cues and the role identity that was salient at that time.

Each interview lasted between 25 and 50 minutes and was, with permission, audiotaped and transcribed verbatim. Again, issues of rapport and atmosphere must be noted as they affect the data collected: Participants were only interviewed once for a limited amount of time so there was no real chance to build rapport. Charmaz (2000) criticised one-shot interviewing stating that it lends itself to a partial, sanitised view of experience. She also explains that the very structure of an interview may preclude the participants' private thoughts and feelings from emerging and believes that researchers' sustained involvement with participants lessens these problems.

Although an important point, the researcher found that her interview experience differed greatly between participants. She felt that she 'clicked' with some interviewees very early on in the interview, others took twenty minutes or so to 'warm up', whilst others remained distant the entire time. With the latter group, the researcher felt that many repeat interviews would have been necessary in order to alter this distanced, professional relationship that occurred in the first interview, if indeed it would have altered at all. It must be noted that the chemistry between two people is different in each case and with some participants the researcher may never have built a

rapport, whilst with others, it was almost instantaneous. This is a feature, but not necessarily a drawback, of all qualitative methods that involve human interaction in this way (Willig, 2001).

3.4.3. Development of Interview Guides

As stated, the interview guide changed throughout the course of the study and with each interview carried out. The altered interview guide is shown in Appendix D. Phase two interviews focussed on similar issues to phase one but the emphasis was more on perceptions and attitudes towards exercise and physical activity and the notion of 'identity', i.e. what it's like to be an exerciser or a non-exerciser. Concordant with early analysis, the issue of aging and perceptions of being 'middle-aged' were also explored in these interviews.

3.4.4. Analysis

Initial analysis of the individual interviews was carried out by hand using the same procedures as those described in section 3.3.3. The codes generated from this were then contrasted and compared to those generated from the non-exercisers interviewed in phase one and further ideas were developed for testing in phase three

3.4.5. Trustworthiness

See section 3.3.4.

3.5. Phase three

The final research phase utilised the data and analysis previously carried out to explore the refined research question using the grounded theory framework described. Initial analyses had been descriptive and had allowed the researcher to observe the exercise behaviours and beliefs of the participants. The subsequent analysis of phase three aimed to uncover the

processes behind these observations. The results of both the descriptive and explanatory analyses are presented in chapter four.

3.5.1. Analysis

The analysis in this phase focussed on the re-organisation of all of the data in new ways and the compilation of a comprehensive list of codes and categories that assisted in the development and testing of the final theory. Whereas initial analysis had examined exercisers, ex-exercisers and non-exercisers individually to explore the data thoroughly, the final analysis looked at the data as a whole to uncover the processes behind the participants' meanings, attitudes and experiences in order to refine the theory being generated. An example of the coding procedure and resultant paradigm models is given in Appendix F.

Charmaz's (1990) version of grounded theory encourages the researcher to view the data afresh again and again as they develop new ideas. The researcher can code and recode data numerous times and pose new questions to the data resulting in new analytic points. This is the approach taken with this study.

3.5.2. Trustworthiness

The trustworthiness process was similar to the procedure outlined in section 3.3.5, although the audit trail from this phase is clearer as some of the memos and coding were provided by and stored in the software package NVIVO, which allowed for a more organised record of the analytic journey taken.

3.5.2.1. The use of CAQDAS programmes in qualitative analysis

Qualitative analysis is a slow, arduous process involving painstaking line-by-line analysis of the data. The rise in popularity of qualitative research methods has led to the emergence of a number of software packages that are specifically designed for qualitative analysis. Packages, such as NVIVO,

84

automate some of the 'cut and paste' tasks involved in qualitative analysis. Instead of cutting chunks of text and sticking it onto index cards (a preferred method for many researchers), a 'sort' facility allocates codes to chunks of text. Codes can be allocated to texts and the software will pull out every instance of a particular code and display them and the corresponding chunks of text alongside each other. This can be useful in dealing with large amounts of data and can be much more time efficient than the manual method. It may also be more preferable for the disorganised, untidy researcher! (J. A. Smith, 1995).

Thus, computer packages can speed up the process of data exploration and can keep ideas and data well organised. They can also assist with idea generation as memos can be attached electronically to the files and are stored with the corresponding codes to allow the researcher and others to track exactly how the ideas have progressed throughout the course of the analysis. However, although these packages can be useful, many writers point out that it is important to see them as a tool to *aid* the analysis rather than as a tool to *do* the analysis for you (J.A. Smith, 1996; Willig, 2001).

The use of computers in qualitative analysis provide the advantage that they can potentially save time (if the researcher is familiar with the software and the data set is fairly large), the formal properties of the categories may be checked and formally described and, as Legeiwe points out in his memo in Strauss and Corbin's (1998) book, "by a few mouse clicks, even the most abstract concept of a theory can be easily connected with all its indicators within the data, thus *testing its groundedness*" (p,278).

However, a number of concerns have been raised about the use of computers. Firstly, software does not do the analysis for the researcher; interpretative analysis is a complex and dynamic activity that must be carried out by a human. Second, each software package differs in the number of tasks they can perform and in how they carry them out (J. A. Smith, 1996). Thus, the researcher may spend more time trying out different packages or getting frustrated with one rather than actually doing the analysis. Smith (1996) concludes that software can be of enormous benefit to qualitative researchers but its importance should not be exaggerated. He recommends

that researchers should consider using software packages only after they have had some experience of carrying out qualitative analysis in the traditional, manual way. This research used the software as a data-management tool, not an analytical one.

3.6. Chapter summary

A total of 81 participants took part in 18 focus groups and 11 individual interviews using a semi-structured interview schedule that was continually revised throughout the data collection phases. Ethical considerations from both the British Psychological Society's guidelines and other authors' presentation of more personal issues (Miles and Huberman, 1994; Wolcott, 2002) were considered in the design, implementation and presentation of the research.

A grounded theory methodology was adopted, which resulted in three overlapping stages of data collection and analysis being carried out with Lincoln and Guba's (1985) four trustworthiness criterion of credibility, transferability, dependability and confirmability being addressed. An audit trail of the entire research process has been generated and clearly reveals how the ideas were developed and what decisions and conclusions led to the generation of the final theory.

3.7. Ethnocomment: Learning about the data

Early in my first year, I had dug out some key literature on general exercise determinants to design a flexible interview schedule based on Sallis and Hovell's (Sallis & Hovell, 1990) model of exercise determinants based on social learning theory (Bandura, 1977) papers. This seemed a good place to start as the idea was to let the groups discuss issues surrounding exercise participation openly and to see what happened. As an inexperienced researcher I found the prospect of this nerve-wracking but exciting.

The sponsoring health club (after much badgering) supplied me with details of regular users of their clubs in the age groups and many hundreds of phone calls and letters later I set off for my first round of focus group interviews, tape recorder at the ready.

The pilot focus group brings back fond memories. It took place in the conference room of a fairly new club in Friern Barnet, North London. The six participants were friendly and open but all very different people. Interviewing is not something that comes naturally to me. I am much more of a talker than a listener! I had spent many hours reading up on interviewing techniques prior to my arrival but was very nervous beforehand and extremely relieved to find such nice people turn up. The group, particularly Gillian and James, a married couple of teachers, were very supportive, and almost parental in their attitude towards me as I was almost the same age as their children (Gillian even allowed me to send my initial findings to her for comment). The interview went particularly well. The club provided some excellent food and I left feeling happy, confident and with a tape I believed to be full of rich data.

The following weeks saw me charging up and down the country interviewing members and ex-members of the sponsors' health clubs. My experiences were very varied, from lively, chatty meetings to interviews where no one turned up. The regular users of the clubs wanted to tell me how great they were and the ex-members of the clubs, that didn't exercise anymore, wanted to tell me how great the clubs weren't.

3.7.1. Evolution of a qualitative researcher (Learning about me)

I could feel my skill as an interviewer improving with each focus group. As someone that prefers to give opinions rather than hear them, interviewing did not come naturally to me, but I soon learned how to bite my lip and listen to the participants. It frustrated me that as I transcribed each interview I would hear occasions when I had butted in too early or asked a new question without fully exploring the last point or picking up on interesting comments because I had been too preoccupied with thinking about my next question to listen closely to the answers to the previous one. I probably always will have instances where I do this, but I hope that with increasing experience these will become rarer.

One problem remained, organising focus groups with non-exercisers. These people could not be reached through any database and so were the hardest to find. I eventually managed to persuade a group of staff at the university, some staff at a nearby company and a church group that the parents of a girl I met at a workshop belonged to (in return, she interviewed my teenage sister and friends for her project on birth control method use and awareness in teenagers). Eventually I talked to 70 people in 18 focus groups over a six-month period.

"To be idle requires a strong sense of personal identity"

Robert Louis Stevenson, Author (1850-1894)

Chapter Four: Analysis and Discussion

4.1. Background data.

Demographic and health behaviour information was collected from the study population via a background questionnaire (Appendix B), prior to interview. This avoided asking personal questions during the interviews that may have been time-consuming and possibly uncomfortable for the participants. The results are shown in Table 4.1 and in more depth in Appendix C.

Table 4.1. Background questionnaire results

	High users	Low users	Over 50s Exercisers	Relapsers	Inactives
Male	39.1%	38.5%	7.1%	40.0%	56.3%
Female	60.9%	61.5%	92.9%	60.0%	43.8%
Age (mean)	47.4	49.6	63.9	50.6	51.4
BMI (mean)	23.7	25.0	26.5	27.2	28.8
Non-smoker	97.6%	100.0%	100.0%	100.0%	100 0%
Ever smoked?	38.1%	45.5%	26.1%	13.3%	55.6%
Length of time quit (mean)	2-30 years (17.5 years)	1-29 years (29 years)	1 - 30 years (20.4 years)	18 & 30 years (24 years)	4 months - 30 years (5.1 years)

4.1.1. Demographics

Of the 81 participants who took part in the study 30 were men and 51 were women. They had a mean age of 53 years. Education level, measured by the highest qualification obtained, was higher than would be expected for the general population (Department of Health, 1997) with the majority of Exercisers having at least a degree (62 6% respectively), whilst 51.8% of Inactives had a postgraduate qualification. The majority of over 50s Exercisers, however, had no qualifications (56.5%).

4.1.2. Health behaviours

Mean BMIs ranged from 23.7 for High users to 28.8 for Inactives. No High users had BMIs over 30 whilst only one Low user was considered obese (BMI >30). However 13 Inactives had BMIs of 30-35 whilst three Relapsers and four over 50s Exercisers had BMIs of 35-40. Although these findings repeat other findings that exercisers tend to have lower BMIs than non-exercisers (Bernstein, Costanza, & Morabia, 2004; Lindstrom, Isacsson, & Merlo, 2003; Petersen, Schnohr, & Sorensen, 2004), these latter participants were the older participants who often tend to have higher levels of body fat due to a decline in resting metabolic rate although this may be regulated by regular exercise (Bernstein et al., 2004; Fukagawa, Bandini, & Young, 1990; Poehlman, Melby, & Badylak, 1991).

Alcohol consumption varied slightly from group to group with High users and Relapsers having the largest consumption with most reporting consuming between 17 to 24 units a week, whilst the majority of Low users, Over 50s Exercisers and Inactives claimed to consume between 9 – 16 units of alcohol per week. Only one participant was a smoker, however, 35.7% had smoked previously, ceasing between four months and 30 years ago (mean = 19.2 years). Perceived diet status data were incomplete but the majority of all groups considered their diets to be very or fairly healthy with only a handful of Relapsers and Inactives admitting to fairly unhealthy diets.

Thus, it could be concluded that the sample of middle aged people used in this study were reasonably health conscious to begin with in relation to the average citizen, regardless of whether they exercised or not. It may also be the case that most people this age consider themselves to live healthfully even when they do not.

4.2. Key categories

The findings presented in this chapter were developed from a grounded theory analysis (phase three) of the data collected from 29 interviews with the 81 middle-aged adults described above. The analysis revealed a number of interactive processes which impacted on their exercise behaviours.

The categories were derived from initial line by line coding, which produced 'open codes', which were then compacted and arranged into groups according to second order codes given group labels. Each of these groups were then ordered into higher order themes that are the key categories discussed in this thesis. Each of these themes was studied in depth in relation to the original transcripts as the properties and dimensions of each were teased out and paradigm models for each were completed that provided the detail required to identify the core category, and ultimately the entire (re)viewing myself process. This process is illustrated in Appendix F that shows some example sample coding and paradigm models.

Fundamentally the issue is one of 'Being Normal', stemming from an assessment of the self and of significant others and which resulted in a continuous effort to maintain an equilibrium between 'who I am' and 'who I want to be'. Figure 4.1 illustrates this '(re)viewing who I am' process.

The (re)viewing myself process will be outlined in relation to each main stage of that process:

- Who am I? (self-assessment)

- Conflict resolution - Change strategies

- Behavioural outcomes

The first stage is very much concerned with the question of self-assessment, and the rejection or acceptance of that self; i.e. self questioning around, who am I? and who do I want to be? If a conflict between the actual and ideal self is identified, then a resolution to the conflict will be sought through various change strategies (an absence of a satisfactory resolution at this stage may return the individual back to the beginning to re-assess themselves and their situation). The final section identifies the behavioural outcomes that result from the overall process of '(re)viewing who I am'.

Figure 4.1. (Re)viewing who I am

SELF-ASSESSMENT

Normality continuum

Identity conflict

-ve   +ve

Self-rejection Self-acceptance

CONFLICT RESOLUTION

Control issues

Change strategies

OUTCOMES

Exercise cube

Re-review?
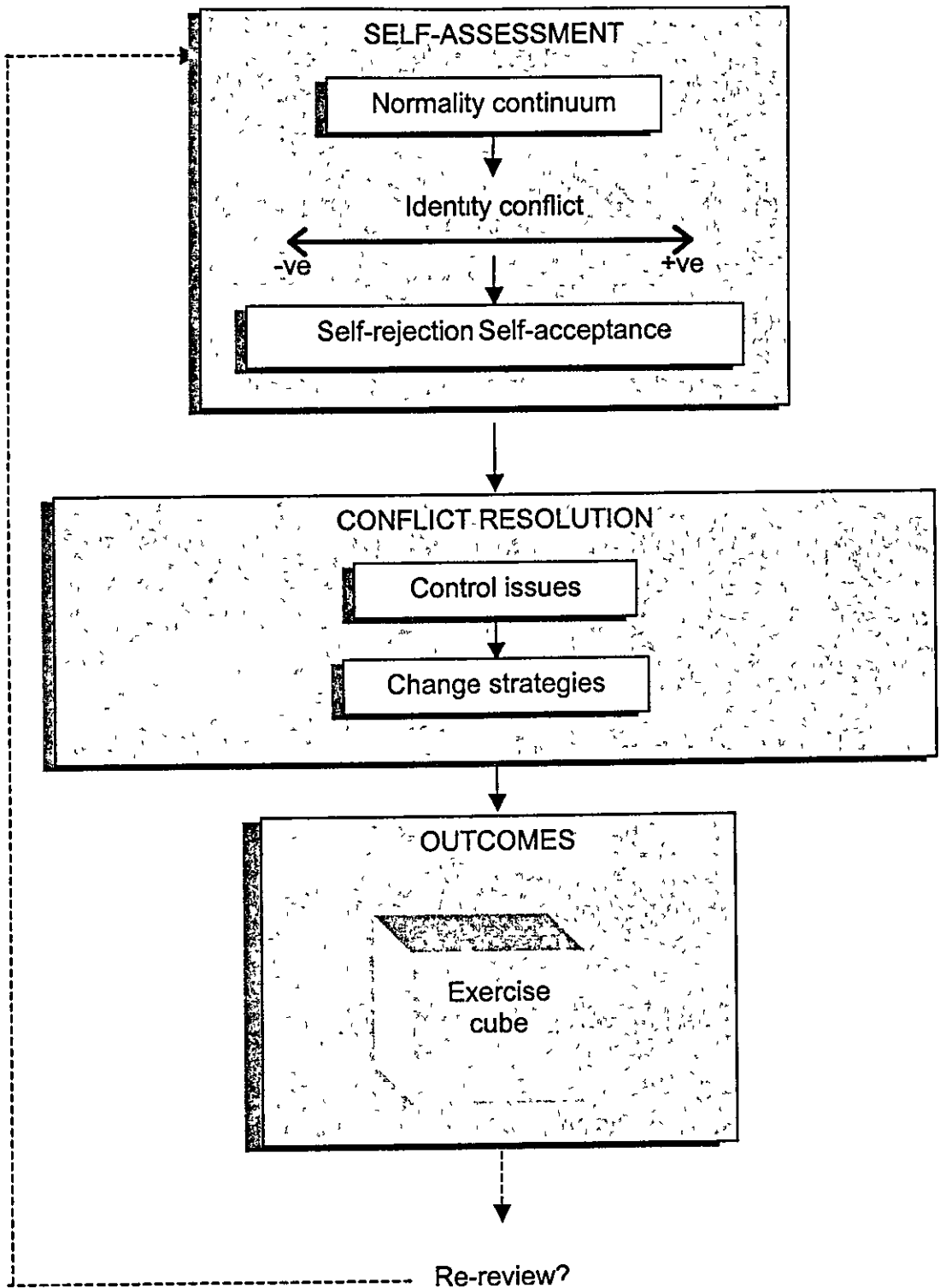
4.2.1. Self-assessment

The journey towards exercise behaviour starts with a simple question:

'who am I?'

Answering this question in the context of exercise behaviour is based around the self-assessment process illustrated in Figure 4.2. The process involves a look at oneself in relation to not only how one used to be:

> "it's kind of disappointing in as much that I'd always been really fit and always been quite proud of the fact that I could run up a flight of stairs or whatever and it wouldn't bother me; now I can't walk up without huffing and puffing." *(T, female Relapser, aged 46)*

but how one is seen by others and how others in one's reference group are seen to be:

> "I think I'm probably almost as fit as a lot of the people who I, in my circle of friends if you like, and probably as well as some of the people I work with." *(C, male Relapser, aged 54)*

> "I think for 45 I am okay! I look okay...to be honest, to look quite, not as a top model but be normal in looking good. Even some people are of the opinion that it doesn't matter how they look ... but I think the looking is the first impression when you are in front of someone and this can be good or worse and if you don't like the look, even if someone is very beautiful. I suppose it is good to look at least in a normal way." *(R, female Inactive, aged 46)*

These comparisons of the self with the former self, the ideal self and others lead to a conclusion that the self is considered by them to be either 'normal' or 'different'.

However, Beres (1981) argues that on a conscious level the individual always knows *who* he or she is. Identity to that extent is clear. What may not be 'known', unconsciously, is *'what* am I?' Thus, he concludes, "it is important, then, to deal with the problem of identity, not only in terms of the conscious question 'who am I?' but in terms of its unconscious meaning to the individual" (p.525).

Analysis of the present data revealed 'who am I' to be a key category that was explored further using Strauss and Corbin's (1998) paradigm model. The concept of 'who I am' came from the social category of 'where do I fit in?' and

94

the personal category, 'being who I want to be'. The contexts and intervening conditions, interaction strategies and consequences will be discussed later and are also related to current literature on identity theories as the category 'who I am' led the researcher to explore this literature in order to inform and inspire subsequent data collection and analysis. Thus, this thesis uses the term 'identity' interchangeably with the category 'who I am', although the former refers to published ideas and the latter to the grounded core category of the current research.

Figure 4.2. Self-assessment stage
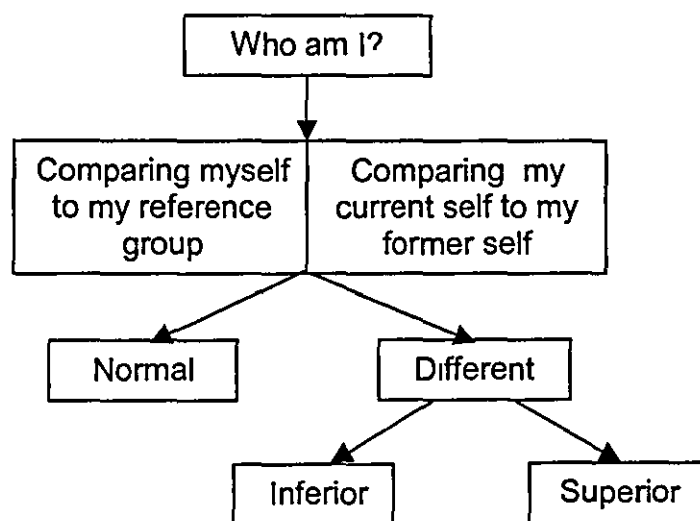
4.2.1.1. Comparing myself to my reference group & to my former self

The first part of the self-assessment process requires the comparison of the self with others and with the former self. In comparing themselves with others, peers' behaviour and related outcomes were examined and participants were either reassured that they behaved like themselves, or alternatively, were concerned that their behaviour and/or outcomes were inappropriately different. In situations where the participants' reference group were seen to be more active, the participants were commonly approving of such behaviour:

> "Lots of friends belong to gyms yes. Here or wherever they live up and down the country and lots of people I work with belong to gyms in various locations." *(S, female High user, aged 52)*

or threatened by it:

> "My brother's fit, you know keep fit, the body beautiful. I call them the fit family, you know his wife at the gym, a lot of body building … I feel a little bit threatened, you know, because they're such fit things, they're at the extreme end and they make you feel like you're really unfit" *(P, female Relapser, aged 46)*

Thus the notion of 'being different' is felt in both the above situations. Participants with active reference groups were more aware of the outcomes of exercise and thus were motivated towards or away from exercise according to the perceptions and beliefs related to their former selves. Simons (2000) argued that a combination of perceived instrumentality (perceived future consequences of a task or action) and goal orientation (extrinsic vs. intrinsic) affects motivation levels; i.e. perceived positive personal future consequences of a task, even when extrinsically motivated, enhanced their task orientation. Thus, the participants' perception of exercise was affected by both their perception of peers' exercise outcomes and any personal outcomes previously experienced.

Peers that were outside of the participants' reference group did not contribute significantly to their notion of being 'normal' or 'different':

> "…the average runner, I think it's great if people have the motivation to do it, it's excellent, but I don't." *(G, male Inactive, aged 46)*

If less active peers that were in the participants' reference group, then they either related to them and reassured themselves that their own low activity level was acceptable, confirming their notion of 'being normal':

> "The secret of feeling fit is to only mix with people who are older and more knackered than you!" *(J, male Inactive, aged 56)*

or they felt that their peers ought to become more active, like them, and may try to encourage them to exercise more in order to feel more 'normal' and less 'different' to their reference group:

> "My family are lazy! I tried to get my daughter here because she's getting a little bit heavy. I would not say that to her, I daren't say that but, I mean, I've always carried weight since I was little and she takes after me a bit." (C, male Relapser, aged 50)

Other conditions that lead to answering 'who am I?' come directly from peers, and not just by observation of them. Many of the middle-aged adults discussed being the age now that their parents were when they started to appear old or ill to them. This led to one of two reactions: inspiration to avoid the ills of old age:

> "I think when I gave up work I'd got more time, and my mother had had a stroke, I thought I don't want anything like that to ever happen to me and so I thought I'm going to get myself fit and I have done by coming here." (Linda, female High user, aged 51)

> "I've always kind of dabbled in exercise and then I had a problem with my back about four years ago and couldn't do anything and really needed to do something and my mum had circulation problems and actually died of a heart attack so I certainly didn't want to end up like that, she was quite young" (Rose, female High user, aged 53)

or as inspiration to take it easy and accept the inevitable:

> "I have a relative, it was an auntie, who died of hypertrophic cardiomyopathy and the idea of sport, I mean they tell you to exercise until you're feeling breathless and I just daren't." (C, female Inactive aged 49)

Other people were inspired by their perceived fit, active elderly parents and often responded by attempting to emulate their behaviour in order to benefit from the same physical and mental results:

> "Yeah well my father's 80 and apart from a little bit of a flutter in his heart he's really really fit so that is my goal. If I ever get to 80 if I ever feel anywhere near what he feels. He gardens all the time, he's out, he'll be out on days like today in the garden" (S, female High user, aged 50)

"My father was active and he got me active playing sport." *(Andy, male High user, aged 54)*

"Well, my father I'm thinking of particularly, who is 87 and actually yeah he does belong to a gym. Yeah he goes swimming occasionally." *(Sue, female High user, aged 49)*

"I mean my mum at 87 was still walking from Chilwell to Beeston to draw her pension! 'I'm not catching the bus while I can walk'. That sort of attitude I think rubs off. My father was a great walker as well." *(Betty, female over 50s user, aged 72)*

How others see me

Receiving positive comments and encouragement from peers either reinforced or raised doubt over the participants' actions. Participants that had previously been told they looked young and/or fit were proud of that achievement and wished to maintain their behaviour in order to maintain that public image:

"Not jealous but they say, 'oh come down the pub instead' but then they actually see that you're looking better and looking healthier and fitter, to start with they start taking the mick but then after a few months they look at you and think 'oh, he's actually looking better, he's doing well' they start thinking about themselves then. 'Oh maybe that's not a bad idea, I'll give it a go'." *(M, male High user, aged 46)*

"Other people at school, they do admire you. They say 'oh, you're really good going to the gym'. They don't think that they could go but they do say that." *(Gillian, female High user, aged 49)*

"I know that it makes a difference. A couple of my friends have started and another colleague and she says 'oh I've got to do it, 'cause you do', I says 'can you tell the difference?' 'cause I don't think, I mean some people come every day don't they? And I might only go in there once a week, but she said 'oh crikey, yes'. She said you could tell within weeks. I was astonished."
(Catherine, female Low user, aged 54)

Similarly, unkind remarks from family members or friends concerning weight gain or an inability to keep up during a family holiday or social gathering involving physical exertion, inspired the participants to reconsider their own opinion of their physical status:

"Yes especially my youngest daughter. Sort of abuse about weight and not going as often as you should. She always says oh yes,

you could do with losing some weight so oh yes, they can be quite cheeky! But I just ignore them." *(Janet, female High user, aged 51)*

Thus, participants' identity arose from an assessment of 'who I am' and 'how I'm seen' based on a comparison with their reference group and with their former self. This is summarised by the graph in Figure 4.3. that shows that this comparison of the self with others resulted in the participants considering themselves to either be 'normal' (represented by the origin of each axis), or 'different'. Being different was either positive or negative as participants described being inferior to others and/or their past selves:

"it's kind of disappointing in as much as I'd always been really fit and always been quite proud of the fact that I could run up a flight of stairs or whatever and it wouldn't bother me, now I can't walk up without huffing and puffing." *(T, female Relapser, aged 46)*

"I would say I'm less fit than most. I mean I know people 30 years older than me who are far fitter than I am." *(C, female Inactive, aged 49)*

or superior to others and/or their past selves:

"It's positive, it does feel a lot better. You notice the difference, not just in the way that you can move around, I couldn't run for a bus and yet last week I had to get the train fairly rapidly and I astounded myself that I could actually run the distance that I did at the pace that I did in the time that I did. I'd never have made anything like that a year ago." *(James, male High user, aged 48)*

"I would say I'm fitter (than others) to be quite honest. Even though I've been injured – with a small i – they do nothing and have done nothing, where at least I've had a life of, I was going to say adventure, which is true, but I've had a life of adventure and exercise." *(G, male Relapser, aged 53)*

The way others see us also affects the way we see ourselves. Social identity theory is concerned with the specific implications for intergroup behaviour and assumes that individuals seek positive self-esteem through intergroup social comparisons (Abrams, 1992). When people define and evaluate themselves in terms of a self-inclusive category (e.g. sex, class, team), two processes come into play: categorisation, which perceptually accentuates differences between in-group and out-group, and similarities among in-group members (including self) and self-enhancement which seeks behaviourally

Figure 4.3. Outcome of the self-assessment process – establishing the normality score
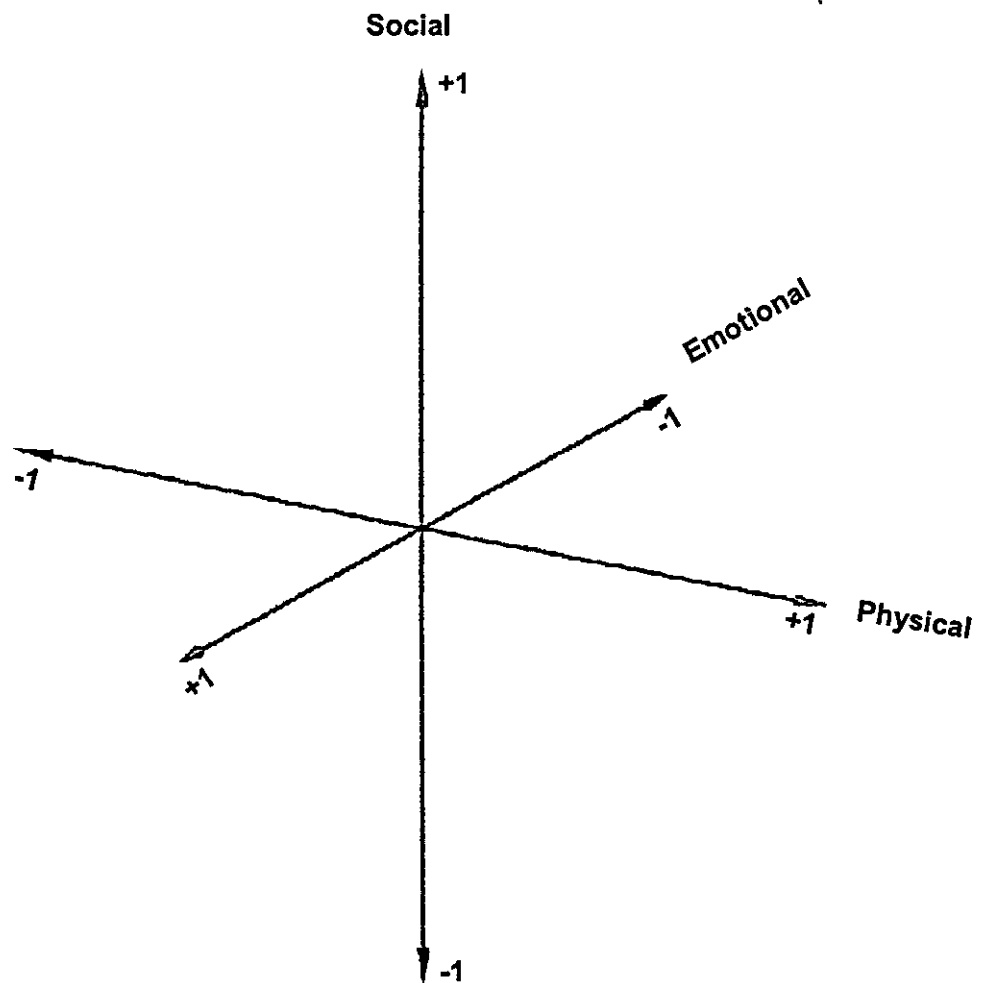
(Axes X and Z are perpendicular to each other)

Key:
Origin = Normal
 +1 = Different / Superior
 -1 = Different / Inferior

and perceptually to favour the in-group over the out-group. Members will interpret the beliefs, attitudes, feelings and behaviours that are expected of them as a member of the in-group and will seek to minimise in-group differences and maximise intergroup differences (Terry, Hogg, & White, 1999). Thus, participants sought to be more like the in-group (i.e. be 'normal') and either changed their behaviour to conform with that group, or attempted

to change the behaviours and attitudes of that group to conform with their own ideals. This concept of identity theory and its relation to the current findings is discussed further in chapter five.

However, the self-assessment process is complicated by the fact that it occurs on three levels, hence the three axes. At the <u>physical level</u>, the self is assessed by physical changes, appearance, capability and health. Some participants described being normal in terms of their declining physical health and/or capabilities with age:

> "I think perhaps with our age group we need a little more encouragement." *(Anne, female Low user, aged 48)*

> "I'm as unfit as most other people my age." *(Alan, male Inactive, aged 55)*

> "if you look at the whole spectrum of, say late forties, I would say I'm about average. I'm certainly not fit anymore but I'm not massively overweight and totally unfit so I'm probably round about the middle, you know, I struggle, I would struggle to run for a bus and run up a flight of stairs, but I don't think that's unusual for someone of my age." *(Terry, female Relapser, aged 46)*

Other participants discussed feeling superior as they looked or performed better than others their age, or even younger:

> "sometimes I meet people and I think, you know, I think they're about 55, 60 and you find out they're 45 and your sort of age and you think gosh!" *(Alison, female High user, aged 46)*

> "I mean I'm probably fitter than a lot of people half my age, particularly looking at the shape of a lot of them!" *(Susan, female High user, aged 52)*

> "I enjoy the fact that I work with people 10, 15 years younger than me and they look 10, 15 years older than me. That's what I really like" *(Malcolm, male High user, aged 46)*

Others talked about being physically inferior, often in relation to physical conditions, which they felt were outside of their control:

> "I've got arthritis on my spine and I've got what's called osteospondelitis. I've got some calcification on some parts of my spine ... It's not that I can't do any of the exercise, although as things have gone on. I had a hysterectomy when I was 38, my bladder's got a bit weaker since then, so if I was to do any jogging

I'd probably want the toilet all the time." *(J, female Inactive, aged 49)*

"When I went to University I started wearing glasses for the first time and as a result of that mentally I had the attitude that it was going to be much more difficult for me and I sort of started to withdraw from sports." *(G, male Inactive, aged 45)*

At the <u>social level</u>, participants discussed their normality or differences in terms of their social roles. It was considered normal by most to have children, to be married and to be employed; all of which were considered drains on time and thus potential barriers to exercise. Those who's situation differed from these or who felt their lives were more flexible than most often believed they were in a fortunate situation:

"I think generally we're time poor aren't we? It's a scarce resource, we've got lots of pressures on our time and lots of things we'd like to do and it's a question of prioritising things, and also the degree of control you have over what happens in your lifestyle. To an extent I'm fortunate in that I work for myself so I can dictate what happens in my day to fit around my priorities, but not everyone's in that position. It is all about scarcity of time and allocating your priorities across the choices in all parts of your life." *(Phil, male High user, aged 45)*

"I'm actually lucky in that I'm self-employed so I can come when I, I know what times to come. 9 o'clock in the morning here is really lovely. You probably get half a dozen people here." *(Janet, female Low user, aged 51)*

"No you have to do what is right for you. I mean I don't have children, I've never had children, I've always had my time for me and I've got a husband that's big into sport, plays football four times a week etc, etc, so we're both of the same mindset, so it's easy for me to say I get up every morning and go to the gym at 6 o'clock. There's nobody to tell me I can't do that and I've nobody to say to me 'you can't get up at 6 o'clock" *(Jane, female High user, aged 51)*

The social level can be related to theories on role identities. Role identities have been defined as the character and the role that an individual devises as an occupant of a particular social position (McCall & Simmons, 1966). These authors go on to indicate that a role identity has a 'conventional' dimension, i.e. the *role* of role identity that relates to the expectations tied to social positions, and an 'idiosyncratic' dimension, where the *identity* of role identity

102

relates to the unique interpretations individuals bring to their roles. Stets and Burke (2003) argue that identity and behaviour are linked through a common system of meaning, therefore in order to predict how an individual will behave, it is necessary to first identify the meaning of the role identity for that individual. The internalised sense of that role or role identity is then tied to behaviours that correspond to the individual's self-meaning.

Thus, for the current active participants, the role identity would be that of being 'an exerciser' or a 'gym goer'. However, what it means to the individual to have these identities depends on their interpretation of that role. Therefore, identities have implications for how one behaves and how one's behaviour confirms one's identity.

The <u>emotional level</u> deals with the participants' sense of well-being and comfort with themselves:

> "I don't really mind whether I'm fitter than anybody else, it doesn't bother me, I do my own thing." *(Edward, male Inactive, aged 54)*

> "I tend to exercise in the mornings, just because it suits my day better, and I know for the next 2 or 3 hours after that I'm just on a real high. I just feel really great; and that's the psychological benefits. *(Phil, male High user, aged 45)*

> "I've come up here many a time, especially just after my husband died, I was so low I couldn't tell anybody how I felt and I'd go out of here a different person really." *(Betty, female Over 50s exerciser, aged 73)*

Many participants discussed aging. For some, reaching middle-age was a non-event, for others it was a very significant event:

> "I try to think that this middle-age thing is a myth" *(J, female Relapser, aged 56)*

> "I just think, very soon I'm going to be 50 and my God am I going to dig my heels in all the way 'cause I don't want to be." *(J, female High user, aged ?)*

The issue of aging came up frequently during the interviews and clearly affected participants at both the physical and emotional levels. Most participants described the changes their bodies were going through with age:

> " Well I don't think that anyone gives you a book that says the differences that will hit you between 40 and 50! The difference between being 42 and 47, 48 big difference." *(Martin, Low user, aged 47)*

> " I used to play a lot of badminton, competitive badminton, long time ago, I can't do it now my ankles would never stand it" *(A, male Inactive, aged 55)*

but how they perceived these changes differed between those that felt that being middle-aged and the associated changes were something to be fought with:

> "A means of staving off the inevitable aging process. It keeps me as fit as I possibly can be and helps me to prevent gaining weight, so I'm afraid with me it's pure vanity. I'll go kicking and screaming all the way to old age and retirement I'm afraid. It helps me do that. Makes me feel good as well." *(J, female High user, aged ?)*

and those that view them as inevitable:

> "I've just accepted that I'm, if you like, over 45 ... I just don't push myself anymore.'" *(T, female Relapser, aged 46)*

> "Occasionally I've been invited to go and do something, which I would, and in the years gone past I would have gone happily to have done it but now I stop and think well I'm not really fit enough to do this." *(C, female Inactive, aged 49)*

Many active participants acknowledged that their body was changing with age but, rather than denying them or using those changes as a reason to stop, they simply changed their level or type of activity to one they felt was more appropriate for their changing abilities or to an activity they believed was more socially acceptable for their age group:

> "I used to play tennis just 'cause I enjoyed it and as my life's progressed I've changed according to my lifestyle" *(G, female High user, aged ?)*

> "I used to play netball and then that got too active for me as I got older so I just sort of carried on and I've always been involved in swimming" *(Janet, female Low user, aged 50)*

Participants' opinions of the aging process was influenced, in part, by the presence or absence of health issues, both of themselves or their peers,

104

whilst their ownership of their own health influenced whether or not they felt they could avoid 'the ills of old age':

> "more recently I've started getting knee injuries. I've got, well I've been diagnosed with arthritis in my knees, whether I've actually got that or not I don't know, and that has really caused me problems; so that stops you even going to the gym, doing, you know bending down and doing that sort of stuff. So I guess it's injuries that's really striking me off the list." *(G, male Relapser, aged 53)*

> "Yeah it's funny, I have to watch one of my knees and some things I'd like to do and I can't, like step, that would just kill it. But sometimes you get aches and pains that you didn't get years ago so if I've not been for a while I just work my way in gradually and not try and overdo it 'cause I'm just going to struggle at my age! (laughs)" *(Janet, female High user, aged 51)*

> "I had a heart attack when I was 60 and I nearly gave everything up because before that I used to run, go orienteering and everything. But I've been walking for nearly ten years now." *(Maurice, male over 50s exerciser, aged 69)*

Thus, in terms of getting older, there is comparison of themselves with others, assessing their potential future and whether it is in their control and concluding with acceptance of the aging process:

"I just think that I'm too old now, it wouldn't happen." *(T, female Relapser, aged 46)*

which could be reluctance:

> "I think as you do get older I think I find it harder to actually keep fit. I find it harder to get myself going and try and keep to a regular regime of a couple times a week exercising." *(Janet, female Low user, aged 51)*

or contentment:

> "I would say I'm alright for how old I am!" *(Elaine, female Low user, aged 53)*

or they could have decided to reject the aging process:

> "it just creeps up on you, you think 'oh I'm getting older, I'd better do something'. Partly 'cause you don't want to get old, you want to
> - keep that personal appearance thing." *(Malcolm, male High user, aged 46)*

"A negative stereotype image of aging is common in Western societies, the effect being that "growing old" is so negatively valued that many adults will try, often desperately, to preserve at least the look of youth – dyeing their hair, dressing like teenagers, or romancing those young enough to be their children." (Schaie & Willis, 2002, p.18). Thus, acceptance (be it reluctantly or contentment) or rejection of being middle-aged was a factor in the self-assessment processes and ultimately in explaining the exercise behaviour of participants in this study. However, what is it that triggers the acceptance or rejection? Schaie and Willis (2002) explain that being middle-aged occurs at different times to different people, often varying with social class as blue collar workers often consider themselves to be middle-aged at 40, having peaked and begun holding on to their achievements, whilst upper-middle-class professionals may not reach their professional peak until their 50s.

Such differences in behaviour exhibited explains why some people may be seen as middle-aged by the age of 35, whilst others are involved in normative tasks of young adulthood (such as childbearing) after 40. Modell (1989) states that "middle-aged, then, is a state of mind. Some individuals seem always to have been middle-aged, whereas others remain adolescents until they are overtaken by old age" (p.19). He goes on to say that "middle-age is a time of coming to terms with the limitations of one's self, of one's loved ones, and finally of reality." (p,20). Schaie and Willis (2002) agree that some people seem very old at 50, whilst some 65 year olds look and behave and have the attitudes of someone a decade or two younger. Indeed, the study population regularly commented on 'not wanting to look my age' and cited exercise as a tool to 'keep young and attractive':

> "I've always done sport all my life, I mean I'm 53 now and it's been, I think, you know, I might not look that good but I feel pretty good, so it's done me proud." *(Mike, male High user, aged 53)*

Those that reject their middle-aged status go to lengths to be perceived as being younger. This behaviour can be interpreted by others as a 'mid-life crisis', a term first coined by Jaques (Jaques, 1965). The existence, or not, of 'midlife crises' has been a topic of debate among researchers since the term's emergence in the 1960s and 1970s in the social science literature

106

(Rosenberg, Rosenberg, & Farrell, 1999). A true midlife crisis is said to be a crisis of identity, particularly among males, and so "midlife has frequently been portrayed as a time of dramatic personality change and life review" (Rosenberg et al , 1999, p.49). Some view midlife crises as being commonly precipitated by the growing awareness of one's own mortality that typically occurs in midlife. Levinson (1986) conceptualised the life course as divided into four eras: childhood and adolescence, early adulthood, middle adulthood and late adulthood. He believed that bordering each era are times of instability and developmental crisis. Other writers believe that progression across the life course is seen as more predictable and orderly and that there is a socially defined timetable for the age at which men and women are expected to marry, raise children, retire etc (Schaie & Willis, 2002).

Whether a mid-life or identity 'crisis' was experienced or not, the participants in this study without exception had definite perceptions of what it meant to be middle-aged, be them positive or negative. The nature of the study asked participants to reflect on their lifestyle choices, and consequently their role identities were discussed. The concept of an identity 'crisis' is not considered by this project, however, the process of self-review presented by the analysis suggested that the participants were either currently experiencing, or had previously experienced a time of self-reflection and a review of their self, their social norms and priorities. It is unreasonable to suggest that each participant was or had experienced a 'mid-life crisis' but certainly a consideration of their age and their role in society had taken place and a conclusion about those had been drawn.

Acceptance or rejection of being 'middle aged' depended, in part, on the social norms of the individual, gained from the comparison of the self with others (how they are expected to behave):

> "particularly as I'm getting older and I'm taking more, I'm looking
> more at older people and what life might have in front of me and
> you just know that those people who are perhaps in there 60s and
> 70s who've done a fair amount of exercise and kept themselves fit,
> just seem to have a much better quality of life. And I've looked
> around and seen my own family and what's happened to them and
> the ones who have done things and the ones that haven't. And
> you see it on campus as well, the guys and the girls, the ladies in

their 60s and stuff and you can see some of them can't even go up the stairs and others are out there jogging and the difference is enormous. I just think the quality of life would be enormously different if you maintain a reasonable amount of fitness and exercise." *(R, male Inactive, aged 49)*

"I'm determined when I retire I'm going to join a rambling group because that way I could get lots of walking but you'd be with a group so you wouldn't feel vulnerable. My friend actually does it. She's 70 but she's very fit, you would never think she was 70 and she goes rambling about twice a week with a group and I thought when I retire I'm going to join a rambling group and go at least once a week on an organised walk." *(S, female Inactive, aged 54)*

and their life stage (e.g. having young or older children):

"I'm a bit different, my children are younger ... The twins are only 11 and my daughter's 12..." *(P, female Relapser, aged 46)*

Their interpretation of being middle aged will also affect their behaviour, such as feeling they should be providing for their family (acceptance):

"it's fitting it into your daily routine isn't it? I suppose it depends what you do. I mean I work full time and I've got a family at home and everything, so by the time I get home it's gone 6, then I've got to cook a dinner and I've got a pile of ironing or something like that, then it's bed time." *(L, female Inactive, aged 54)*

"being a single parent doesn't help when you've got a family at home that wants you to get home and cook." *(J, female Inactive, aged 49)*

or throwing themselves into hobbies and making themselves look and feel younger (rejection):

"It's 'cause I'm narcissistic, use the word, yeah, because I just think very soon I'm going to be 50 and my god am I going to dig my heels in all the way 'cause I don't want to be." *(J, female Inactive, aged ?)*

"there's no point sitting at home being fed up ... You age so quick and you're under that ground too long!" *(Jeanette, over 50s exerciser, aged 63)*

Of course these are extreme ends of a continuum and, whilst not uncommon, a middle stage does appear to exist where the individual accepts that they are 'middle-aged' but rejects the stereotypes associated with that of slowing down and getting old and still strives to be the best that they can be:

108

> "There's things you can't do than when you were 20 isn't there? I mean, you know, I mean I've got bad knees now, my knees aren't what they were when I was 20. But the rest of me, I feel fine, I mean, I know how old I am, it doesn't matter how old I feel. When I come here I go skipping out of here like a 20 year old some days, other days I go out of here feeling about 70! I don't think that matters. You know what your own capabilities are don't you"
> *(Malcolm, male exerciser, aged 46)*

For these 'generators', finding a balance between the young and the old self is important. Feeling good may take priority over looking good, teenage children may be expected to provide for themselves more, allowing their parents more time for outside interests. Exercise, if taken, will not be seen as a way of testing themselves, of proving that they've 'still got it', but will be gentler and be a way of simply prolonging good health and socialising with friends.

Thus, the self-assessment process, carried out at the three levels of the comparison of the physical, social and emotional self compared to participants' reference groups and how that self is perceived by others resulted in each participant gaining an opinion as to their own 'normality'; in other words, they gained a 'normality score'.

4.2 1 2. Being normal

Being normal was a category that was particularly applicable to non-exercisers:

> "I'm normal and at 51 everybody around me is doing about the same thing as me. It's not something that is unusual. I'm not a fitness freak and there don't seem to be many in our age group that are now!" *(L, female Inactive, aged 51)*

The participants' concept of normality depends on the discussions of the participants' perception of their age, their physical health and well-being and their perceptions of their peers. It was always believed that it was normal to be less active the older an individual got In addition many participants discussed being 'okay as I am':

> "Looking at my neighbours, they're all, we're all about the same age, it's one of those estates where everybody moved in together and everybody had children together and there's nobody I can, apart from one who's part of the running club, but no. When you get to our age a night out's a night down the pub isn't it?" *(L, female Inactive, aged 51)*

> "I'm as unfit as most other people my age." *(A, male Inactive, aged 55)*

> "I know a lot of people that's five or six years younger than me that don't do anything, don't do exercise, don't do anything at all and I wouldn't say I was fitter or they were fitter than me. I don't really know anybody my age that actually does anything." *(J, female Inactive, aged 49)*

Interestingly, no comments were made about it being normal to be a 40 year old exerciser. This suggests that the participants belonged to a culture that dictated that people of a certain age are entitled to, or even encouraged, to slow down and be less active.

Non-exercisers' comments about the normality of being inactive often culminated in a discussion of how 'abnormal' people are if they exercise regularly . Derogatory remarks such as fitness 'fanatics' or 'freaks' were frequently used, confirming or reinforcing the participants' place in the inactive in-group:

> "I think the fitness enthusiasts are probably a minority but they make a lot more noise."*(E, male Inactive, aged 54)*

> "I think they're abnormal!" *(A, male Inactive, aged 55)*

> "I wouldn't want to be that fanatical" *(T, female Relapser, aged 46)*

Many non-exercise focus group participants mentioned, at the end of the interview, that the discussion had reassured them that their inactivity was normal behaviour:

> "I tend to think 'god I'm the only lazy git around'" *(T, female Relapser, aged 46)*

> "I'm somewhat reassured that there's other people that don't take exercise but I think we're all aware of the need for a certain amount." *(Edward, male Inactive, aged 54)*

Thus, 'being normal' was generally seen as accepting the inevitable aging process and gradually losing the fitness and abilities of youth. Exercise was not seen as 'normal' behaviour by either inactive participants, who considered exercisers to be abnormal, or by participants that did exercise, who agreed that they were abnormal but that expressed this abnormality in much more positive terms.

4 2.1.3. Self-acceptance or rejection

The perception of the self and where that self fits into the social norm, leads to the next question, 'am I happy with who I am?'; put another way:

'am I who I want to be?'

The normality score gained from the self-assessment process (inferior / normal / superior) is contrasted against the ideal self (Figure 4.4). If the actual self corresponds to the ideal self (difference = 0 - +1) then the individual is likely to accept that self and maintain their current behaviour. This is most likely to occur when the participants consider themselves to be 'normal' or 'superior':

> "I think for 45 I am okay! I look okay" *(R, female Inactive, aged 45)*

> "I always have, except for a couple of year, exercised. You see it almost seems strange to me to call it exercise. I've never really thought of it as exercise per se…. When I stopped I found that I didn't feel right so I just carried on doing it. It makes me feel better and at the end of the day that's what it's all about. *(M, male High user, aged 55)*

However, if a negative (≤ -1) difference is found between the actual and ideal self then a conflict exists. The resultant rejection of 'self' leads to the next stage, conflict resolution:

> "what I don't like now is 'cause I do feel very unfit" *(P, female Relapser, aged 52)*

> "I joke about it and say 'oh I'm fat and forty, I don't care', it's not strictly true. I'm fat and forty and not at all happy, and not at all happy that I'm not doing anything about it either." *(T, female Relapser, aged 46)*

111

Figure 4.4. Comparison of Actual self vs Ideal self
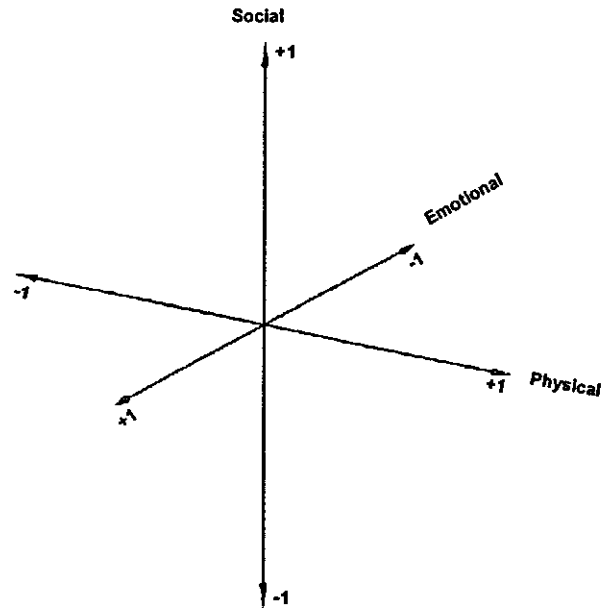
Who am I?   ⊤   Who do I want to be?   = -1 ⟶ +1
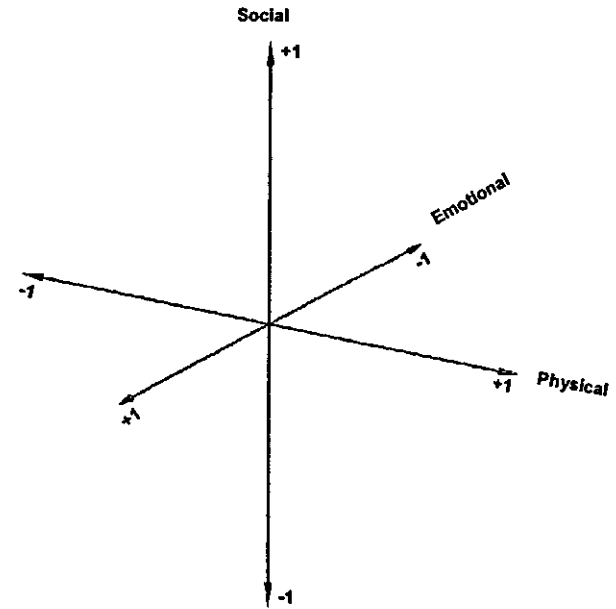
Key:
Origin = Normal
  +1   = Different / Superior
  -1   = Different / Inferior

4.2.2. Identity conflict and resolution

Identity conflicts occur in two ways: the first occurs when the actual and ideal self differ. The second occurs when the self differ to the comparison with the reference group. Thus, identity conflicts may exist in the participants' individual identity, their social identity, or both.

In order to understand this notion of identity conflict, identity theory needs to be reviewed. The term identity has been used to refer essentially to the culture of a people, for example ethnicity, and is also used to denote common identification with a collectivity of social category as in Social Identity Theory (Tajfel, 1982), whilst others have used it with reference to parts of a self composed of the meanings attached by persons to the multiple roles they typically play in society (Identity Theory) (Stryker & Burke, 2000).

The existence of two schools of identity theorists posed an initial problem in relating the current findings to the literature, however, further investigation revealed several papers (notably (Stets & Burke, 2000) that called for an integration of the two theories. It should be noted, however, that Hogg et al. (1995) have argued against this, stating that although the theories have similarities, the differences in the roots of the two theories (microsociological vs psychological) has led to marked dissimiliarities between the theories in terms of their level of analysis, the role of intergroup behaviour, the relationships between roles and groups and the salience of social context and identity. They feel that, "identity theory may be more effective in dealing with chronic identities and interpersonal social interactions, whilst social identity theory may be more useful in exploring intergroup dimensions and in specifying the sociocognitive generative details of identity dynamics" (Hogg et al., 1995, p.255).

However, Stets and Burke (2000) disagree; their argument being that, although differences exist between the two theories, these differences are more in emphasis than in kind. They feel that linking the two theories could establish a more fully integrative view of the self. They link the two theories in three areas:

1. The different bases of identity i.e. *categories or groups* for social identity theory and *roles* for identity theory. They also relate the issue of *person* identities here;

2. The activation of identities and the concept of *salience*;

3. The core processes that arise once an identity is activated i.e. the cognitive processes of *depersonalisation* (social identity theory) and *self-verification* (identity theory) and the motivational processes of *self-esteem* (social identity theory) and *self-efficacy* (identity theory):

> "In general, one's identities are composed of the self-views that emerge from the reflexive activity of self-categorization or identification in terms of membership in particular *groups* or *roles*. Thus, although the basis of self-classification is different in the two theories (group/category versus role), theorists in both traditions recognise that individuals view themselves in terms of meanings imparted by a structured society" (Stets & Burke, 2000, p.227).

Stets and Burke (2003) explain that people are tied organically to their groups through social identities and are tied mechanically to their role identities within groups. They construe that a full understanding of society must incorporate both the organic/group and the mechanic/role forms as they are distinct aspects of society that link to individual identities in separate but related ways. They go on to say that not only are group and role identities interrelated, but it is difficult to separate the group and role identity from the person identity. However, they acknowledge that, whilst both social identity theorists and identity theorists have discussed the person identity, they have largely failed to examine how it might be incorporated into their theories. Thus, they conclude that establishing a general theory of the self (and consequently an explanation of behaviour) must understand how group, role and person identities are interrelated.

Burke et al. (Burke, Owens, Serpe, & Thoits, 2003) add that when an individual identifies with the social categories that structure society and behaves according to the expectations tied to their identification, they are acting in the context of, referring to, and reaffirming social structure. Thus, they conclude that a combination of the two theories recognises that the self exists both within society and is influenced by society because socially

defined shared meanings are incorporated into one's prototype or identity standard They also state that it would recognise that the self influences society, because individual agents act by changing social arrangements to bring the self into line with the abstract identity standard. This has implications for exercise behaviour research that asks whether individual's behaviour shapes society or whether society, particularly social norms, shapes individual behaviour.

Stets and Burke (2000) also believe that an integration of the theories would allow for investigation into the degree to which some identities are more malleable than others. They cite the example that:

> "people may be more likely to adjust their person identities to adapt to situations than to modify more structurally constrained role or group identities. We also can explore the direction of influence of the different identities. For example, person identities may influence role and group identities when they are first taken on. Once a role or group identity becomes established, however, person identities may have little impact" (Stets & Burke, 2000, p.230).

Burke and colleagues (Burke et al , 2003) have developed their work to incorporate identity as having three bases: members of groups (social identities), having certain roles (role identities), or being a unique biological entity (personal identity). For example, a person could be a policewoman (social identity), a mother (role identity), and a person who is good at table tennis (personal identity). These three bases can coexist or conflict, rather than being extreme ends of a continuum (as in social identity theory).

Multiple identities suggest either a mechanism for 'switching' from one to another or a way that different identities coexist simultaneously with each other. However, the possible coexistence of conflicting identities is unclear. For example, a 50 year old woman may have a 'middle-aged' identity which proposes that she should 'take it easy' and accept her reducing physical capabilities, however, she may have been a keen hockey player for most of her life and have younger friends that invite her to join them in a game. How does she resolve any possible conflicts that may arise between being a proficient, enthusiastic hockey player with a social circle made up of younger

women with similar skills, interests and abilities, with being an older woman who's colleagues and family feel she is too old to be running round a hockey pitch and feel she should be slowing down, like them, and taking part in activities that are considered more appropriate for someone of her age?

Conflict resolution strategies differ depending on whether the participant accepts or rejects their self and on their perceptions of control (Figure 4.5).

Figure 4.5. Resolving the conflict between actual and ideal self:
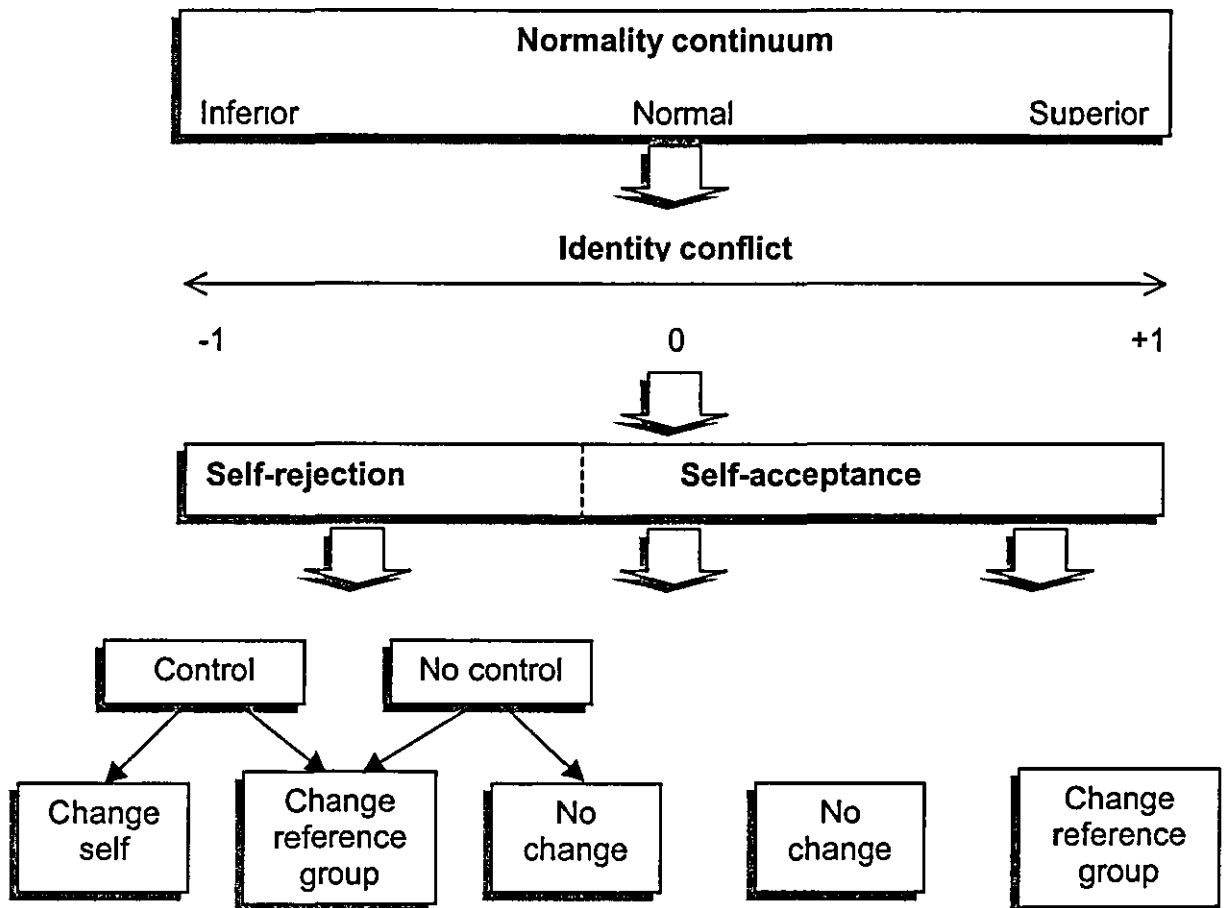
4 2.2.1. Control issues

For those participants that expressed dissatisfaction with themselves, issues of control over their health and activity levels were salient. Participants could

be divided into those that 'owned' their own health and those that didn't. Almost all participants described the physical and psychological changes that were associated with aging and many described having physical conditions themselves or having peers or relatives that were affected by illness or injury. However, it was their perception of those physical conditions that was of particular interest. Many active participants described using exercise to 'ward off the ills of old age':

> "To ward off the ills of old age. There you go!" *(Gillian, female High user, aged 49)*

> Gillian: "To keep, to maintain a level of fitness. As you get older, I mean, the body does slow down, it does wear out so you need to keep your fitness level up. Things like osteoporosis and all these things, so that means, yes, it's keeping fit and healthy."

> "there's a difference, yes your heart, your heart, your lungs. Your joints if you can. And if you can't then you swim because it's great for all the people with arthritis. I don't have any but there are lots of ladies who do the aquaerobics who've got lots of joint problems and it's good for them" *(Pat, female High user, aged 55)*

Although several acknowledged that keeping fit became progressively harder with age:

> "It's getting that balance between wanting to stay fit but also wanting to stay in reasonable shape for, well when you're younger for instance, but also that it is more difficult as one gets older to maintain a level of fitness and yeah, I think, I live on my own and so it's very important to be fit because I have to do all the physical things around the house as well, you know, get the wood in and decorate and things like that so it's important from that point of view." *(Susan, female High user, aged 52)*

> "I think as you do get older I think I find it harder to actually keep fit. I find it harder to get myself going and try and keep to a regular regime of a couple times a week exercising." *(Janet, female Low user, aged 51)*

Some participants that considered themselves to be 'different' because they had physical conditions (such as health problems or poor eyesight) believed that exercise was important for them to overcome, or at least minimise, the effect the condition had on their lives:

> "I've got, sort of this arthritis in my neck and I've got to do something, I don't want it all over, ten years down the line, so I really *need* to get back..." *(K, female Relapser, aged 52)*

> "In my 50s and 60s I ran half marathons and did a lot of orienteering, then I had a heart attack when I was 60 and for 2 years I virtually did nothing because I was obviously worried about the effects but then I decided that I couldn't go on like that so then I started the aerobics which I've been doing for nearly 8 years and also walking 15, 20 miles a week for the fast exercise, it's fast walking. Not just rambling. At least three times a week, five to seven miles at a time. I feel better today than I have for a long time!" *(Maurice, over 50s exerciser, aged 69)*

Many participants discussed believing exercise was important for health and of having every intention and desire to do more but did not actually change their behaviour. These people often owned their own health but were almost in denial of that. They believed deep down that they could be fitter and healthier if they wanted to, but preferred to either deny that they were unfit, or use excuses to procrastinate. These will be discussed further below.

Other participants described their health status as something that was almost a separate entity. To them, good health was something that fortune gave, rather than lifestyle. Possibly the most extreme participant that demonstrated a complete lack of ownership of her own health was Janet, a 49-year-old inactive female. She spent her entire interview listing her health problems and explaining why she was overweight:

> "It's as if I had a hysterectomy and all my, my metabolism stopped. I blamed it on HRT, which I have to have, but over the years I've reduced that and initially, last summer, when I'd stopped taking it for three months I lost at least 10lb in a month, just by stopping taking the HRT. But I can't survive without it because in the menopausal symptoms ... you know, I'd sooner take it and feel healthier but now I'm using, obviously I'm using inhalers ..."

> "So it is very important. If you haven't got a back problem I think everyone should go to it. But my back, honestly, I don't use it as an excuse by no means, but I can be very restricted by it. I don't want to go to a class and then end up taking pain killers for the rest of the week before I can attend the next one."

Three-quarters of the way through the interview, Janet admitted that her GP had actually told her to exercise more:

> "The doctor did say I ought to walk to work but, it's not the distance or the problem with walking, although in saying that when she mentioned it at the time I thought well it's alright walking to work but when you've been there nine and a half hours you're shattered, you just want to get in the car".

However, she justified ignoring the doctors' advice in two ways. Firstly she emphasised yet more health problems, then she described having colleagues that did exercise but that (in her opinion) got no benefit from being active:

> "I don't really understand if you've got arthritis, if there's not so much lubrication as there was when I was younger, how do I know I'm not aggravating it? I want to be able to keep supple and not end up crippled as I get older but again I don't want to aggravate anything."

> "I see people round me who come to work on bikes and things and they're no fitter than what I am... my assistant, she bikes, she comes in in the morning totally out of breathe, huffing and puffing and she's just turned 40 and she's, it probably tones up your legs and keeps you toned and it probably makes your heart beat better, I don't really know, but you can look at people that do bike, they're the only two people I know that bike, apart from an overweight cleaner, she's always biked and she's never gone slim. So I wouldn't say coming to work on a bike is actually beneficial."

Although Janet is an extreme example, other inactive participants also questioned whether exercise was actually beneficial for health:

> "Thing is that theory is only a recent phenomenon because, how often did you hear about exercise from say pre-1970 or whatever? I mean going back in history the healthiest person was the fattest one 'cause they were the rich people who could afford to eat as much as they wanted and they were considered healthy, it never crossed their minds that it was unhealthy to be fat. So it's only in the last half century and there again we're only believing what we're told by so-called experts and being sort of brainwashed by it on TV all the time." *(J, male Inactive, aged 56)*

> "I don't know what the truth is. It's probably some exercise that is genuinely regarded as exercise. I wonder whether there's a sort of placebo effect, you know, that you could do exercise that wasn't really exercise but because you thought it was exercise you think it's doing you good so you feel good. Or you feel better. I don't know." *(A, male Inactive, aged 55)*

These, and others, also often stated that they would only exercise if they really had to, i.e. they felt that health problems were something to be dealt with as they arose, rather than avoided:

> "Apart from a medical emergency or necessity, I don't know. I can't think of any other way of encouraging me to take up a lot of physical exercise." *(D, male Inactive, aged 51)*

> "I wouldn't say I was an active person, I'm only active when I *have* to be. If there's a choice then I'll lounge around. And I'm good at it!" *(J, male Inactive, aged 56)*

> "I mean the only way I'd use something like that is if the doctor said 'you need to exercise, your hearts going to give out, you need to exercise so you've got to go and do these things', and I might do it because I have to but out of choice definitely not." *(A, male Inactive, aged 55)*

Thus, issues of ownership of health were divided between participants that felt responsible for their own health status, who could be subdivided between those that actively sought prevention of illness and age-related decline and those that preferred to wait until there was something to cure, and participants that felt that their health was not their responsibility but something that was either good or bad, through no fault of their own.

This relates directly to the construct 'locus of control' (Rotter, 1966). Health locus of control was originally viewed as a bipolar construct ranging from external causes, where the individual believes their behaviour is guided by fate, luck, or other external circumstances, to internal causes where the individual believes their behaviour is guided by their personal decisions and efforts. However, this theory has been extended to a multidimensional model and a specific multidimensional health locus of control construct has been developed (Wallston, Wallston, & DeVellis, 1978) that contains three subscales that measure an individual's tendency to believe that health outcomes are due mainly to one's own behaviour (internal), to others such as medical professionals or family (powerful others), or to chance. The latter subscales are classified as "external beliefs" and the former "internal".

The multidimensional health locus of control scale (MHCL) has been investigated widely using a number of health behaviours including exercise (Brown, 1999; Calnan, 1989; Slenker, Price, & O'Connell, 1985). Many of

these have found a modest relationship between lower socio-economic status and higher "external" scores and high socio-economic status with higher "internal" scores. However, these correlations have tended to be weak and can be confounded with age. Thus, although this thesis refers to internal and external control, it is acknowledged that these simplistic terms are demonstrably more complex and only contribute to a small proportion of the behavioural outcomes.

4.2 2.2. Change strategies

Figure 4.5 illustrates how participants that had rejected their actual self and demonstrated an internal locus of control over their health behaviour discussed a desire to 'change me':

> "I started last year basically because I'd reached that age where perhaps things ... well I suppose I was starting to put a bit of weight on. I've never carried weight and then suddenly you hit a certain age and you start to put a bit of weight on and I didn't like it really. I prefer not have to think about what I eat so I thought maybe exercise would help." *(Female Relapser, aged 48)*

> "I was quite conscious that I wasn't as healthy in terms of how I felt as I possibly potentially could be and still could be and so decided that I'd join a club and made an effort to come on a regular basis and do feel better than I did before so that was my main motivator, I suppose, was to actually feel better. Not 'cause of other people or anything like that but just, you know, things that I was doing in my own work and thinking 'God I'm knackered, I feel like a 60 year old!' and I wasn't." *(Alison, female High user, aged 46)*

> "Well between the ages of 25 and 45 very little because obviously I moved into lecturing and the amount of time I'd got available for exercise was minimal. But after 45 I had a nervous breakdown and decided I'd got to change. So that's when I took up jogging, 1977, and at the age of 50 ran my first marathon!" *(Maurice, male over 50s exerciser, aged 69)*

Participants that rejected themselves but perceived an external locus of control over their health (usually chance), often resulted in a desire to change others (i.e. to discourage their peers from being active, being an 'opponent'):

> "my brother-in-law used to go long distance running and he's had ops on both knees in his 40s so I smile and say I've done nothing and I'm alright now!" *(Edward, male Inactive, aged 54)*

or to change their reference group ('hang around with people fatter than you'!):

> "The secret of feeling fit is to only mix with people who are older and more knackered than you!" *(J, male Inactive, aged 56)*

> "There's that lovely card you can get: 'Lord if I cannot be slim, please make all my friends fatter than me!" *(A, male Inactive, aged 55)*

Some participants that rejected themselves and expressed a desire to change combined both change strategies and attempted to get their less active peers to join them in a behaviour change:

> "I used to come with my daughter. Michelle would phone me 'are you going up the gym?' and I would think oh really? (laughter) Are we going, are we sure we're going? Alright then, we'll go. And that's how we used to do it." *(M, female Relapser, aged 52)*

Participants that accepted themselves but still recognised a social identity conflict also resolved this by changing others. This was achieved either by encouraging peers to be more active (being a 'Crusader')·

> "my wife, she'd never done any exercise until we decided to join here and now she's as keen as I am so she's come from not doing anything to one who will come regularly 3 or 4 times a week." *(Andy, male High user, aged 54)*

> "I've got friends that come. Yeah I've got friends that I actually introduced." *(G, female High user, aged ?)*

Others simply gave up on their inactive peers and changed their reference group by making new, active friends:

> "I enjoy it socially as well really. I meet some great people." *(Pat, female High user, aged 55)*

> "I joined with a friend here because we joined Cannons first then we moved here and if I've seen her twice here in the whole of the 2 years that's all because we never arrange to come together and I just never bump into her. It doesn't worry me now though because I think, I go to yoga and you recognise people and even though, you pass the time of day, you may not know all names but you do pass the time of day. You get your own little clique don't you?" *(Sue, female High user, aged 45)*

The issue of change is thus divided into three strategies: to change oneself, to change others or to maintain oneself. This is, however, simply an intention. The actual behavioural outcome depends on the addition of factors such as a positive or negative perception of exercise, the desire to exercise and the salience of being an 'exerciser' in the individual's hierarchy of role identities.

The presence of competing role and social identities, introduced above, provides an explanation of the observed phenomena that an intention to change does not always lead to an actual behaviour change. As identity theories have shown, the multiplicity of role identities means that roles can either complement or compete with one another. This has led to the notion of identity salience. If identities are seen as cognitive schema (internally stored information and meanings serving as frameworks for interpreting experience), they are cognitive bases for defining situations and receptivity for certain cues for behaviour. Thus, Identity Theory hypothesises that the higher the salience of an identity relative to other identities, the higher the probability of behavioural choices attached to that identity (Stryker & Burke, 2000).

Role identities are thus organised hierarchically in the self-concept. The prominence of an identity depends upon the degree to which one: 1. gets support from others for an identity, 2. is committed to the identity, and 3. receives extrinsic and intrinsic rewards from the role identity. The more prominent the role identity, the more likely it will be performed in a situation (Stets & Burke, 2003).

To relate this to the current research, a person is likely to have 'exerciser' as one of their role identities if they have a social network in which exercise is relevant, for example friends and family that play sport or go to a gym regularly. This can be past or present. However, that role identity will interact with others, such as being a parent, spouse, employee etc. These roles will vary in salience at different times, e.g. from 9am to 5pm employee may be most prominent, whereas being a parent may take over after work whilst picking children up from school and completing domestic matters such as shopping, cooking, etc. The importance the person places on each of these

identities depends on their commitment to that identity; this, in turn, will influence the behaviour of the individual towards that identity. For example, a women may have a role identity related to an aerobics class she attends twice a week with a friend, however, she is also a mother, a wife and a keen bridge player. These role identities may conflict if her husband falls ill, her children need to be taken to an activity or if an important bridge event arises on the same evening she is scheduled to go to her aerobics class. Each scenario affects a different role identity and the behaviour she chooses will depend on the role identity that is most prominent in her hierarchy.

Different situations that affect an individual will activate different identities. What influences the ranking of an identity in the salience hierarchy is the degree of commitment an individual has to the identity. Stets and Burke (2003) state that commitment has two dimensions: a quantitative and qualitative aspect. The first reflects the individual's ties to the social structure where commitment reflects the number of persons that one is tied to through an identity. In the latter, the stronger or deeper the ties to others through an identity, the higher is the commitment to the identity. Thus, in the above example, the woman may feel justified cancelling her aerobics class with her friend to go to a bridge event with several members of her bridge club as she will only be letting one person down as opposed to several. However, she may also cancel an event with her bridge club because her child is ill as her ties to her child are stronger than her ties to her bridge club.

Thus, the salience of identities have important implications for how one behaves. Stryker and Serpe (1982) demonstrated that the salience of religious identities predicted time spent in religious activities, whilst Callero (1985) showed that the salience of a donor identity predicted the frequency of blood donations and that commitment to others in the blood donor community influenced the salience of the donor identity. Abbott et al. (1999) studied the salience level of sport identity (baseball) and demonstrated a significant difference in choice behaviour between the high sport salience group versus the low and the medium sport salience groups.

The presence of multiple identities, such as parent, spouse or employee, could complement or contradict an exercise identity depending on the

salience of the different identities and the commitment to each one the individual had. The contradiction between identities caused a discomfort for the individual who then sought to change their situation in order to resolve the conflict. However, Burke (Burke, 2003b), argues that given the way the identity system operates and adjustments are made, over time there should be less conflict as the identities learn to live together.

The idea of multiple identities being related to and influencing each other (such as an exerciser seeking to 'change others' by encouraging their children to be active by taking them to sporting activities ('Crusader'), thus spending 'quality time' with their child and confirming a 'good parent' identity) has been supported by Burke (personal communication, 16th April, 2003), who explains that particular combinations of identities are more influential in terms of increasing or decreasing stress or well-being when applied to voluntary, as opposed to obligatory role identities. He points out that many researchers agree that identities that have common meanings are likely to be activated together whenever those meanings are present in the situation. Deaux (1992) also suggests that identities that share many meanings are located near the top of a prominence hierarchy and may work together to control the meanings of identities lower in the hierarchy, i.e. with a lower salience.

Burke and Reitzes (1991) developed a hierarchical perceptual control theory where an individual will conceptualise a self-meaning standard for a particular identity and will behave as close to that standard as possible. If the individual feels that they are wavering from that standard, they will change their behaviour accordingly for lower identities or may even change lower level standards for higher level identities. Burke calls this the self-verification process and describes it as, "a dynamic, ongoing, continuous process of counteracting disturbances that occur in the situation. Such disturbances may be the result of others' behaviour in the situation, one's own behaviour in the situation, or ongoing physical processes in the situation" (Burke, 2003b, p.198).

In other words, a person who is new to exercise may have a conflict between their family identity and their new exercise identity. This conflict will cause

stress so in order to achieve equilibrium between the identities the person will either have to change their behaviour, such as forgoing the exercise, in order to maintain the more salient family identity, or will have to change the standard for their exercise identity, possibly by only exercising twice a week, or not going to the gym or will have to incorporate the two identities by encouraging their family to join them exercising.

Burke (Burke, 2003b) argues that for all activated identities, the self-relevant meanings must be either orthogonal or aligned, they cannot remain in opposition. He states that one cannot be both good and bad or strong and weak. When different identity standards require conflicting self-meanings the system is put into an impossible situation in which one or both identity standards cannot be confirmed. When this happens the standards have to shift and people re-identify themselves, changing their self-meanings as held in their identity standards.

Thus, according to Burke's theory, having two oppositional identities activated at the same time should result in much distress. However, it should also result in change. This change may be gradual as standards shift, as suggested above, or one of the identities may become less salient, or commitment to the identity may decrease, resulting in a possible decrease in exercise behaviour. One may also avoid situations in which both identities are likely to be simultaneously activated, such as exercising during the lunch hour to avoid a conflict with family commitments.

The intention to change or to maintain oneself as a resolution to the conflict between their exercise identity and other prominent identities depends, in part, upon the salience of and their commitment to the exercise identity. The intention is transferred to an actual behaviour only if that behaviour also depends on participants having a strong desire to exercise, a predominantly internal locus of control and an ability to overcome real and perceived barriers which must be preceded by a positive perception of exercise.

4.2 2 3. Perceptions of exercise

Based on previous experiences of exercise, preconceptions about what exercise entailed and the influence of others' opinions, participants had varied perceptions of exercise ranging from good to bad, important to unnecessary for health and that it should be done at low to high levels.

Many participants discussed the physical and psychological benefits of exercise although many of the less active and inactive participants emphasised the dangers of exercise and a fear of 'overdoing it':

> "I think it is good for you but at the same time I would be fearful of pushing myself too far... I mean they tell you to exercise until you're feeling breathless and I just daren't. I mean it's a logical reason why. I mean I'll exercise by all means but I'll stop short of making myself breathless." *(C, female Inactive, aged 49)*

The term 'exercise' has a range of connotations and can frequently be interchanged with other terms such as 'physical activity', or 'sport', each of which can conjure diverse images for different people. Thus, participants were asked for their perceptions of the words 'exercise', 'physical activity' and 'sport', initially to ascertain their opinions of these terms with a view to informing the marketing strategy of the initial sponsors.

Definitions of the term 'exercise' varied slightly but almost all did not associate sport and exercise and many differentiated between exercise and physical activity (see Table 4.2).

Table 4.2. Perceptions of the term 'exercise'

Exercisers	Relapsers	Inactives
Physical benefits: Being healthy Shape, health, fitness, energy	**Physical benefits** Keeping healthy	
Psychological benefits: Relaxation Can be fun Feeling good Enjoyment		
Effort Sweating Hard work	Effort Energy	Effort Hard work Boring
Something I must do	**Something you should do**	**Something you should do but don't**
	Negatives: An artificial method of keeping fit Time consuming	

All groups described exercise as involving 'effort' and being 'hard work'. However, exercisers described many physical and psychological benefits of exercise, such as 'being healthy', 'relaxation', 'enjoyment' and 'feeling good'. Relapsers mentioned some physical benefits of exercise, such as 'keeping healthy' but neither Relapsers or Inactives associated exercise with enjoyment or positive feelings. Relapsers and Inactives also described negative associations with the term exercise such as 'time consuming', 'boring' and 'an artificial way of keeping fit':

Exercisers described exercise as 'Something I *must* do',

> "Exercise is an essential, a must-do" *(S, female High user, aged 52)*

whilst Relapsers felt exercise was 'something you *should* do':

> "Something you should do" (K, female Relapser, aged 52)

> "I do associate it with something you have to do, something you begrudgingly do." (M, female Relapser, aged 52)

Inactives added to this stating that exercise was 'something you *should* do but *don't*:

> "Something you ought to do but probably don't." *(E, male inactive, aged 54)*

Exercisers' use of the term 'I' suggesting that they relate the term 'exercise' to themselves whereas the non-exercisers use of 'you' suggests that for them exercise is something that other people do. This desire to exercise is discussed below.

Table 4.3. Perceptions of the term 'physical activity'

Exercisers	Relapsers	Inactives
Walking, running, gardening	Gardening and walking	Gardening
Benefits: De-stressing Having fun Getting results	**Benefits:** enjoyable Relaxing	
Different to exercise: less hard work less intense healthy living	**Different to exercise:** day to day activities more enjoyable/relaxing leisure time	**Different to exercise:** Desirable activities rather than compulsory Going to work
Same as exercise		
Negatives: Tiring Exhausting Time-consuming		**Negatives:** Hard work

The term 'physical activity' was generally considered to be much more positive than exercise (Table 4.3). Exercisers and Relapsers both described the benefits of physical activity as being relaxation, enjoyment and having fun. Some exercisers felt that physical activity was the same as exercise but most exercisers and all non-exercisers felt that physical activity was less hard work and more enjoyable than exercise and tended to involve day to day activities:

> "exercise to me is something you plan to do as opposed to physical activity you do in your normal day to day activities." *(C, male Relapser, aged 50)*

> "Physical activity to me is, I do a lot of gardening, I've got a big
> garden so I do a lot of gardening and heavy gardening at the
> weekends and I walk. That's physical activity. Exercise I tend to
> think of when I'm on the treadmill, when I'm lifting weights, when
> I'm rowing. That to me is what exercise is in my mind. The rest is
> leisure activity, part and parcel of everyday living for me." *(J,
> female Relapser, aged ?)*

Non-exercisers tended to feel that physical activity involved desirable
activities rather than compulsory ones:

> "It's something that you *want* to do rather than something you
> *have* to do." *(J, male Inactive, aged 56)*

Table 4.4. Perceptions of the term 'sport'

Exercisers	Relapsers	Inactives
School - netball, hockey Swimming, tennis, football		
Teams/Competitive	Competitive	Team games
Enjoyment	Fun/enjoyment	Enjoyable/sociable
Same as exercise		
Different to exercise		
Something other people do Spectator Professionals	Something other people do For professionals For younger people For watching	Something other people do For watching
	Something I used to do	Something I used to do
	You have to be fit to do sport	
		Something I hated at school
		Something I'm no good at

Most participants described sport (Table 4.4) as involving teams and
competition. Some members of each group, particularly men, described sport
as being fun and enjoyable. Exercisers that had been involved in some form
of sport for many years were more likely to consider sport and exercise to be
the same whereas most other participants, regardless of group, tended to
describe sport as 'something other people do' such as younger people and
professional athletes:

130

> "I think of sport as being much more things that other people do, not me. I exercise, I keep fit, I do not do sport. That is a completely different thing " *(Female High user, aged 51)*

> "I see sport as something different to what we do....I think professionals do all that, well athletes do, we're not athletes!" *(M, female Relapser, aged 52)*

There was a general consensus among this age group that sport was for younger people:

> "I would have thought that sport is more for younger people." *(C, male Relapser, aged 54)*

There was also a common theme in this age group that sport was something to be watched rather than participated in:

> "I'm a spectator in sport but I enjoy exercise, they're quite different." *(Female High user, aged 53)*

> "If somebody said sport I would think of watching and not participating, but that's because I don't like sports as I would think of sports." *(Female High user, aged 50)*

Many non-exercisers described sport as 'something I used to do', whilst some Inactives explained that they had hated sport at school and felt that sport was something they were no good at:

> "I hated sport at school, I was never very good at it so I didn't get involved." *(L, female Inactive, aged 51)*

> "Well if you're *made* to do it and you know you're not particularly good at it, it's a complete turn off. If you're made to do it it's an endurance test. I mean I used to think of all the different excuses to get out of PE 'cause I hated it." *(A, male Inactive, aged 55)*

> "I was never interested in it. I was never very good at it." *(R, female Inactive, aged 54)*

The word exercise was certainly more preferable to sport for women but not necessarily so for men. Physical activity may be a more preferable general term, particularly for the less active, but this term is not currently associated with structured forms of activity, such as going to a health club. Some non-exercisers commented that they preferred more 'natural' ways of keeping fit, such as walking and swimming to regimented, structured activities:

"I don't find the words physical activity off-putting" *(J, female Relapser, aged 56)*

"Exercise to me is an artificial way of keeping yourself fit really. Rather than the natural way of an active job, something like that ... exercise to me is something you plan to do as opposed to physical activity you do in you're your normal day to day activities." *(C, male Relapser, aged 50)*

"I like walking, I like the more natural activities. I think that's why I like the swimming so much." *(J, female Relapser, aged 48)*

Other conditions that affected the perceptions of exercise was their opinion of their own health status and their perceived control of their own health, as discussed earlier

"I've got diagnosed high blood pressure. I've known it for a while now; and they were worried if I started exercise." *(D, male Inactive, aged 55)*

access to / knowledge about convenient, affordable facilities·

"I say opportunity. Just where to go, what to do." *(D, male Inactive, aged 55)*

"Price, very expensive and they get more and more expensive, and then you feel guilty." *(T, female Relapser, aged 46)*

social influences, such as peers that exercise:

"My wife does and in fact yes, a lot of people we know. 5 couples that we're very friendly with are all members here and there's quite a lot of people we know." *(M, male High user, aged 53)*

"But I don't know, maybe I'm unusual. I don't think I am. I suppose because I've always played sport I find it difficult to understand people who don't. It's a concept that's alien to me, these people not playing sport because that's what you do on a Saturday. You pick your kit up and you go out and have a fight somewhere! *(laughter)* So do a lot of my friends, my age group, have played football, or they've played cricket, or they've played rugby or they've played all 3. I suppose the majority of people I know and am friendly with have participated in sport and I suppose that's why we get on, because we have an empathy. It doesn't have to be the same sport but we have an interest in sport." *(Martin, male High user, aged 55)*

being able to exercise with like-minded others (i.e. being part of the in-group and behaving in a sociably acceptable way):

"The main problem really is that you could have done with having someone to come with you. If you had someone to come with you

and you had a chat and then you come in here and have a cup of coffee together and a little bit of a chat, it becomes a social occasion as opposed to purgatory doesn't it?" *(C, male Relapser, aged 50)*

"I had a period when I didn't do that much when I got my girls when they were quite young but I made an effort and I used to have a badminton group, people in similar positions every Wednesday morning, and it got us all starting doing things again and that was quite good. It was probably about 17 years ago. So I used to play in the evenings then I joined this group that had been playing for a few years and we all used to take the children and they used to go to playgroup and it was social but we also enjoyed it and we got exercise." *(Janet, female High user, aged 51)*

"I quite enjoy some of the things where there's a bit of social, sort of connection if you like. I do the aqua, for instance, on a Tuesday and they're quite a good bunch of people and we do exercise" *(P, female High user, aged 52)*

having peer / family support for exercise.

"Yes my wife encourages my. My younger daughter says 'oh you've got to go'...In fact I joined because my wife joined." *(Martin, male High user, aged 55)*

"But they are the most important things aren't they? I mean they think it's great that I go to the gym. They go 'are you alright mum, have you had a nice time?' They ring my up and say 'have you had a nice time at the gym?'" *(Patricia, female Low user, aged 47)*

and enjoyment of the social aspect of exercise:

"I think the social side's very good as well, I really do, 'cause we're friends more than anything aren't we?" *(Betty, female over 50s exerciser, aged 72)*

"Part of my coming here is just to do something physically but also the social side of it, you know, you can meet people and you can have a chat so that's all part and parcel of it." *(Catherine, female Low user, aged 50)*

The perceptions of exercise also differed according to the *type* of activity discussed. As many of the focus group interviews took place in health clubs, participants found it difficult to broaden the discussion of exercise to activities outside of a health club environment.

Participants' views of health clubs were varied. Many regular exercisers, who were all regular members of a health club, praised the facilities of the club but were highly critical of the hygiene, policies and staff interest and expertise.

The less active tended to speak even more negatively about health clubs. Relapsed members were very critical of the club they had left, often complaining that they had felt out of place and not catered for:

> "(Health clubs are) Not the sort of place that I would be seen dead in! You tend to think of people that are bronzed Adonises and people that look well in leotards, and there's not many! And not the sort of thing that I would be involved with." *(Male Relapser, aged 50)*

> "there's nothing for older people, older customers. It's all very much about the undiscriminating. That's the point, because they know the 20 year old isn't going to be discriminating. That's why it's much easier to target that age group all the time. So yeah, it's a big disappointment really." *(P, female Relapser, aged 52)*

Relapsed participants frequently described feeling intimidated in the health club environment, a fear that was also voiced as a reason for not taking part by the Inactives:

> "I haven't been in to one of the 'new' gyms 'cause they seem to be, there's lots more new equipment, because I'm intimidated by them...They're always full of fit young things, that's the other thing."" *(S, female Inactive aged 54)*

> "The intimidation thing of going into a gym and being surrounded by fit young people would be a turn off to going in there. It would be intimidating." *(J, male Inactive, aged 56)*

Other inactive participants described simply having no interest in health clubs, believing them to be for 'different' types of people (i.e. people in the out-group):

> "Health clubs never give me that impression that it's about social activities. The impression I have is the sort of, you know, this fanatic trying to do, lifting weights or cycling. Now it might be a completely false impression but it's the one I have and I find it a big turn off. And also health clubs give me the idea that you go there and drink carrot juice, you know, or it's about beautician treatment which would be a compete turn off because it's about appearance rather than what you're like inside So that's what puts me off it because it seems to be about the body beautiful rather than actually pleasure and happiness and enjoyment. It doesn't seem to me to be focussed on that. That's what turns me off." *(A, male Inactive, aged 55)*

> "When you look through the window at health clubs, fitness clubs, whatever, that's the image you get of a big room with treadmills,

exercise bikes and weights, none of which hold any interest for me at all." *(J, male Inactive, aged 56)*

"I think of them *(health clubs)* as being hard work, quite boring and requires a lot of self-discipline to make yourself go and do it and you're putting yourself through it because you want what it offers at the end not 'cause of the enjoyment you're getting out of it." *(R, male Inactive, aged 49)*

The belief that health clubs were for younger people was also common:

"I think, probably, as you get older it gets more difficult to do something that you're not used to doing, to do something new. When you're young you try all sorts of different things that are new but as you get older you get more set in your ways and to actually go out and try something different that you've never tried before gets more difficult, which is probably why older people don't join a health club. You know, they build a health club and all the youngsters probably join it, oh great this is something new, but the older people don't because as I say as you get older you get more set in your ways." *(S, female Inactive, aged 54)*

"that's the other thing, I mean these things (health clubs) appeared when we were probably in our 40s. It's not a culture that we've grown up with so therefore it's difficult when you're in your 40s to sort of change your lifestyle and make the effort to do these things. Maybe young people, if they join when they're, well they carry on from school I suppose and graduate into these and it becomes a way of life but it's not for us 'cause it's suddenly been thrust on us in the last 20 years." *(J, male Inactive, aged 56)*

The *timing* of the activity was also a salient factor in whether participants described exercise as a positive or negative. Many participants had been for exercise in their past but were not interested now:

"I think I'm living on the benefits of what I did when I was younger. Most definitely. I think that's helped me enormously, that when I was younger, in my 20s to 30s I did a lot of exercise and 30s to 40s. I guess began to tail off when I got to 40." *(G, male Relapser, aged 53)*

or had recently taken up exercise in a bid to improve their health or appearance:

"I was quite conscious that I wasn't as healthy in terms of how I felt as I possibly potentially could be and still could be and so decided that I'd join a club and made an effort to come on a regular basis and do feel better than I did before so that was my main motivator I suppose, was to actually feel better. Not 'cause of other people

or anything like that but just, you know, things that I was doing in my own work and thinking 'God I'm knackered, I feel like a 60 year old!' and I wasn't." *(Alison, female High user, aged 46)*

"Yeah that was the sort of age again, thirties, I stopped playing netball and wasn't as active, as fit as you used to be. Puffing when you got up the stairs and thought better do something." *(J, female Low user, aged 51)*

Some participants discussed the importance of exercise as you get older but a few believed that that did not apply to them yet:

"There is a need to exercise more for women between 45 and 55. It is important but not yet, for me." *(R, female Inactive, aged 46)*

Who the discussion was about also affected the perception of the importance of exercise. Some inactive participants acknowledged that exercise was important and often encouraged others to be more active, such as their children, but did not feel it was *as* important for their own health:

"Extremely important for other people you know!" *(C, male Relapser, aged 54)*

"Oh I think it's very important. I think for the, I sound old here, but I think the younger generation nowadays" *(J, female Inactive, aged 49)*

Finally, the perception of exercise often changed when motivation issues were brought up. Exercise could change from 'important for health' and 'something you should do' to 'boring', 'too time consuming' and 'too much hassle'.

Thus, perceptions of exercise varied from 'something I must do' for the exercisers, to 'something I should do', for the ex-exercisers, and 'something I should do but don't' for the non-exercisers. Less active participants preferred the idea of 'physical activity' over structured exercise as it appeared to be more purposeful and enjoyable. Sport was considered by this age group as 'something I used to do but now watch' and is therefore not an appropriate exercise promotion term. However, the data collected on exercise perceptions was largely related to exercising at a health club, due to the nature of the research and its initial sponsors. It is possible that some of the

negative perceptions of exercise were due to this association with health clubs, rather than the notion of exercise per se. This may also have affected findings on participants' desire to exercise, which also strongly influenced their exercise behaviour.

4.2.2.4. Desire to exercise

Low users and relapsed exercisers often described being unhappy with themselves. These tended to have a positive perception of exercise, often from having had successful experiences with exercise in the past and a high perceived control of their own health. However, they still did not exercise. These adults were often struggling with the question:

'Can I be bothered?'

The issue for these participants was 'how much do I want to exercise?' and it was here that many struggled with conflicting opinions. Most believed that exercise was important for health and commented on past occasions when they had been more active and had felt better about themselves:

> "I usually felt better at the end of it. And it was quite social, it wasn't lonely thing to do, usually do swimming, whatever, walking, it's always with other people. I used to go to the gym and enjoy seeing people there." *(S, female Inactive, aged 54)*

> "I think I can believe what I'm told because when I've done exercise like swimming, even though I've found it boring and I've forced myself to do it, I've felt better afterwards because I have done it." *(J, male Inactive, aged 56)*

> "...even though my experience here was quite limited in terms of the amount of time I came here and probably what I chose to do, I still recognise that I've benefited from that short time and it was noticeable, it wasn't just noticeable to me it was noticeable to other people. I recognise that the remedy is within me. It's highlighted the importance of exercise." *(Female Relapser, aged 48)*

but this often contrasted with a belief that exercise is not an enjoyable way to spend time as it is boring, hard work, too much hassle etc:

> "a few years ago I went to an aerobics class and I found with music it was relentless. I just had to keep stopping and everybody else was carrying on. It was quite embarrassing really." *(C, female Inactive aged 49)*

"The effort, I suppose, involved" *(J, female Relapser, aged 56)*

"Well the effort. I think all this getting changed, that's a big drag. And getting changed back again." *(J, female Relapser, aged 56)*

"At the moment boring, 'cause I'm bored with it. Yes so broadly speaking boring." *(T, female Relapser, aged 46)*

"I don't like the idea that you were constantly looking at how much you'd done. I mean you set yourself 10, 15 minutes on each piece of equipment and you think, how long have I done? And oh, is that all I've done? And it was just yet another clock-watching task for me and I didn't like that at all. It was too regimented and too boring." *(J, female Relapser, aged 48)*

The participants interviewed that were active or expressed a desire to be more active spoke about the barriers that existed in their everyday lives to prevent them exercising regularly. There has been some debate over the real and perceived barriers to exercise participation (Bouchard, Shephard, Stephens, Sutton, & McPherson, 1990; Dishman, Sallis, & Orenstein, 1985; O'Brien & Vertinsky, 1991). This study found that many participants acknowledged that many of the barriers they identified, such as lack of time and other commitments, were their excuses:

"I've sort of been on my own and partly time, working full time maybe has, well, been an excuse if you like for not exercising" *(J, female Relapser, aged 56)*

"Lots of excuses as in no time but they are just excuses." *(T, female Relapser, aged 46)*

"I use that subconsciously for not doing any exercise, and yet really it's not such a good excuse because I could go to the gym and I could do something that doesn't bother the knees at all." *(G, male Relapser, aged 53)*

Thus, the main reasons for non participation among the participants that expressed a desire to exercise more was simply that exercise was not a high enough priority for them, which indicates that although they were dissatisfied with themselves, 'who they wanted to be' was not important enough for them to undertake the changes in their lives necessary to be that person:

"It's a motivation-thing again isn't it? You know, I'm sure you've heard this a thousand times, when you get to your 40s and 50s time accelerates and you do get busy doing your job and before you know it you start off, I mean today's Monday isn't it? And

before I've thought about it I know it'll be Thursday or Friday because you go to work, you do the things you want to do, you get involved and time just sort of evaporates." *(G, male Relapser, aged 53)*

"Given that I reckon the problem is about self-discipline then any little psychological barrier that you can put in the way of going you will do and one of the things is distance. And if it's more than, of it's not on your doorstep, oh I can't go this week I haven't got time." *(R, male Inactive, aged 49)*

"you can always blame time. It's your psychological barrier isn't it? Oh I don't really have the time. But you can make it if you want to. So if I didn't have to work again I'd still find excuses for not doing exercise, other things I want to do like travel the world or go and eat in fine restaurants or something." *(S, female Inactive, aged 54)*

Many participants described having other things that they would rather do with their time:

"I think it's the lack of time that prevents me. But if I'd got more time available I would fill it with other things." *(C, female Inactive, aged 49)*

"low priority you could say for me. Yes it's something I want to do but it's something I usually find other things to do instead" *(E, male Inactive, aged 54)*

"whether I'm prepared to actually make the effort to do it. I would like to be fitter and healthier and I would like to do more but again it goes back to whether I can be arsed basically!" *(T, female Relapser, aged 46)*

These inactive participants had other identities that were more salient and competed with their desire to develop an exercise identity. Thus, their resolution to the conflict between the actual and desired self was to abandon the desired self and accept the actual self, rather than change themselves. These contrasted with the active participants that also described having barriers to exercise such as distractions and lack of motivation:

"It's family, it's pressure of time and family and something happens and then that stops you coming and it's hard to get back into it again." *(W, female Low user, aged ?)*

"I think it's my lifestyle, I think it's having the children. It's alright when you haven't got commitments really, and I think that's it, with me really. I'm like a taxi service for the children and that is exactly what I am." *(P, female Low user, aged 47)*

139

"Limitations at home really. Like Martin said if it gets to 9 o'clock you think 'well shall I?' but once you come you do feel better going home, even though it's late. But that's the main reason for me, just the time. Because once I start, occasionally I've been about 4 times a week and you sort of get a bit of a buzz and you want to come more often and you get into this routine and it's really good and then something happens and you get a little backlog. I'd like to come more often but that's my problem." *(Janet, female High user, aged 51)*

but who found ways to fit exercise into their lives as being an exerciser was a more salient identity for them:

"I take my swimming costume to work in my briefcase and once it finishes I'll come down here. I always go with the intention of coming here afterwards. If I get a school parents evening or something I will have my / like tonight just in case there's time I'll bring it with me, so that's the intention. If I can't do it, it's beyond my, there's nothing I can do, it's beyond my control. So my intention is always to come so that's good." *(Gillian, female High user, aged 49)*

"Well if I'm, you know, a long way away then if I do get back in the evenings, even if I make it for sort of, almost half past seven and I could go to a class, sometimes I am just too tired. I just cannot face it. I'm based at home but I don't very often get the chance to work a day at home. If I do I can come to the half past 9 step class and work late and still do 9, 10, 11 hours or whatever and still get a class in. It's just pressure of work as much as anything and I do like to come at weekends. Saturday and Sunday mornings always without fail unless I have to go away somewhere." *(Susan, female High user, aged 52)*

"I think you have to be prepared, if you are going to be a part of it on a regular basis then you have to organise your life around that. I know it sounds a bit silly but you do don't you? ... I mean I come four nights a week" *(S, female High user, aged 50)*

Thus, participants that expressed an interest in exercise can be placed along a 'desire to exercise continuum':

Wanting to exercise ———— Ought to exercise ———— Not wanting to exercise

(exercising regularly because I enjoy it and enjoy the benefits)	*(dabbling in exercise occasionally)*	*(making myself exercise)*	*(occasionally exercising reluctantly or not exercising and making excuses/justifications)*

Active participants that spoke about wanting or needing to exercise (high exercise salience) differed between those that exercised for enjoyment:

> "It's an essential. It's a must-do. Not can't get by without it but recognise that if I don't get it I miss it." *(S, female High user, aged 46)*
>
> "I do yeah, I exercise everyday. The days I don't come here I go running. I just find my body, I get very restless if I don't. I suppose I've been doing it for so long." *(P, male High user, aged 45)*

and those that exercised mainly for the benefits it gave them, the feeling afterwards, rather than during:

> "I mean, some nights I come in here and I don't really want to be here but I make the effort; and when I walk out of here two hours later I feel really good. It's like anything else, it's making the effort to do it, then you actually enjoy it. It's like getting up in, if you don't want to get up in the morning you don't but..." *(Malcolm, male High user, aged 46)*
>
> "I feel better for it. I can't say I always enjoy it, sometimes I walk out there thinking 'why am I doing this?' but basically yes, I mean, when you've had a shower and you get home you think 'yes I do feel a lot better for that'." *(Martin, male High user, aged 55)*
>
> "The feeling that I have afterwards I think, more than anything else. I don't particularly enjoy the exercise itself ... But it's the feeling afterwards, when you've done it, you've worked hard, you've pushed your body, you've had a shower and you're ready to go again and then that's, and it gives you so much more energy. You'd think it would wear you out." *(P, female High user, aged 54)*

Less active participants often felt that exercise was something they 'ought to do' rather than something they wanted to do. These participants frequently described exercise as a chore and emphasised the lack of enjoyment they experienced whilst exercising:

> "it's more of a chore to keep the weight down, rather than something I enjoy." *(T, female Relapser, aged 46)*
>
> "That was sort of a half-hearted attempt to do something 'cause I've always had to force myself to do something because I thought I ought to, rather than I really felt, 'oh yes, I want to do it'." *(J, male Inactive, aged 56)*
>
> "you did it because you felt you ought to do something, not because you wanted to do something. I've done aerobics and things like that but I can't honestly say I enjoyed it." *(R, female Inactive, aged 54)*

These positive beliefs about the benefits of exercise, but negative perceptions as to actually participating in more exercise, identifies why

exercise was not salient enough for many of the participants who described intending to exercise but not actually getting round to it:

> "I think it's a self discipline thing. I think all of us could make the opportunity if we wanted to And we don't because it's something we're going to do next week and we just don't get round to it." *(R, male Inactive, aged 49)*

> "Motivation on my part, I think. Maybe having the willpower to set that time aside and say 'right it is Thursday afternoon and no matter what I'm going to do it', or whatever it is, like some of them do. I think in a way I'm easily sidetracked." *(J, female Relapser, aged 56)*

> "I've got lazy! Looking for easier options and options that I enjoy rather than having to force myself, you know when it's cold and wet and miserable and you really don't want to go out, now I don't." *(T, female Relapser, aged 46)*

It is possible that these participants are still at the decision-making stage (Figure 4.1). They have reached the conflict resolution stage and want to change, but are struggling with their motivation and priorities, in which case they may reassess their self-evaluation and decide that 'who I am', that is the actual self, is acceptable after all as the exercise journey required to change is too great a challenge to take up.

Thus, as Figure 4.6 summarises, there are three change strategies that exist to resolve conflicts: maintenance of self, when the self is accepted, change self, when the self has been rejected in favour of the ideal self, and change others, when others are changed, either by encouragement to be different, or by changing the reference group entirely. Figure 4.6 is shaped as a tetrahedron to demonstrate that although these strategies can occur individually, they can also occur in conjunction with one another (Figure 4.7 provides an illustration of this). For example, an exerciser may accept themselves but may have a social conflict which they seek to resolve by joining a running club (change reference group) or they may encourage their partner to accompany them to the gym (crusader); a non-exerciser may wish to become more active (change self) and may also encourage her friend to join her in a lifestyle change (change others) so they can support each other. Clearly, however, it is not possible for the maintain self and change self strategies to occur simultaneously in an exercise context.

Figure 4.6. Changing others: process and outcomes
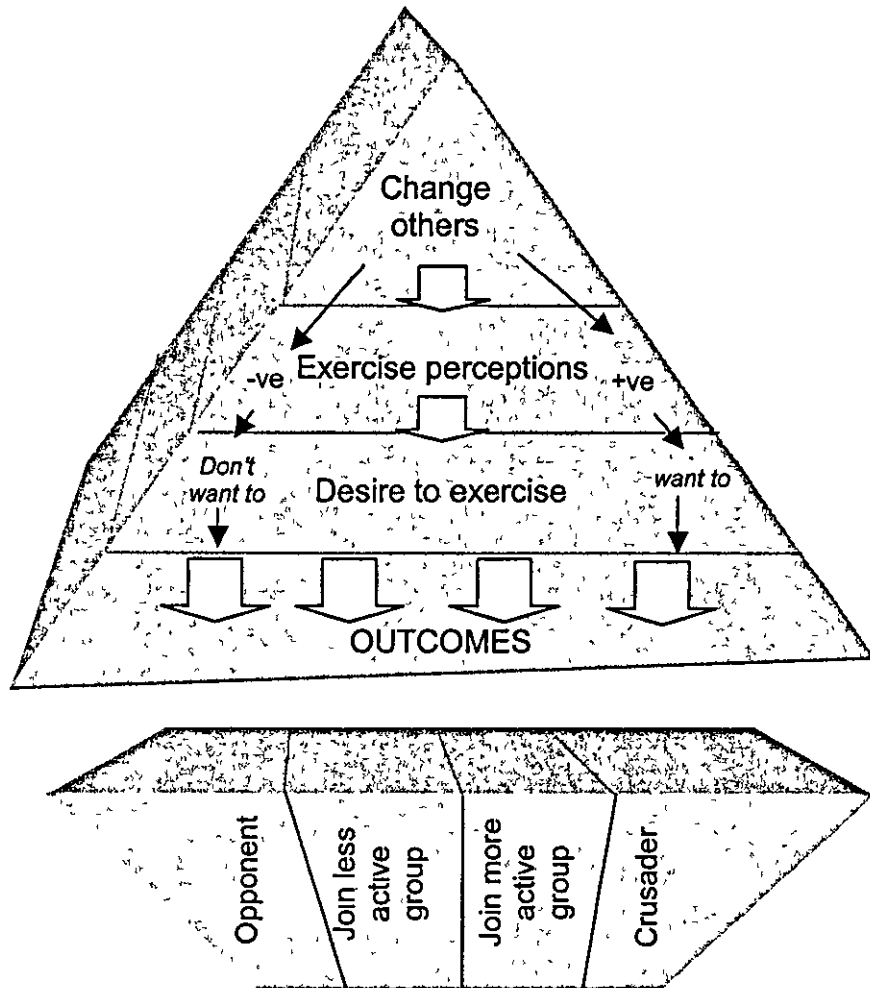
Figure 4.7. The mechanisms of change tetrahedron (showing each side)

Change self

Change others

Maintain self
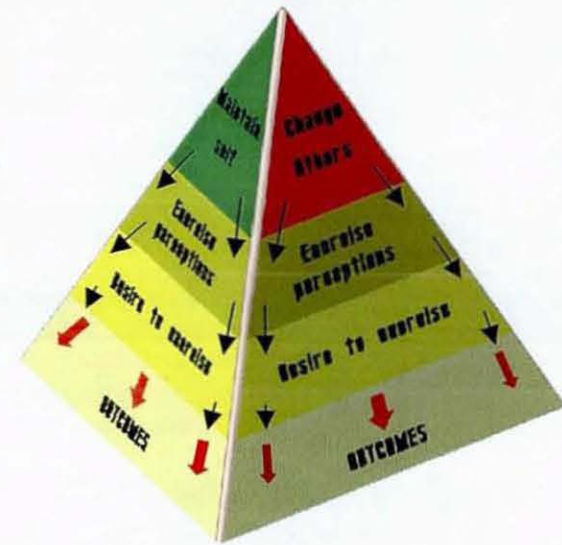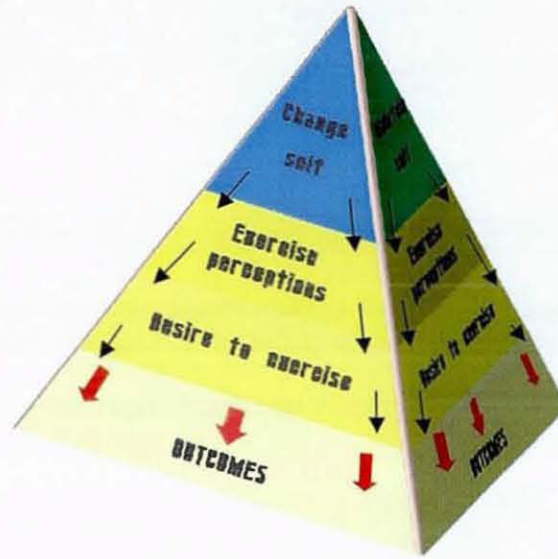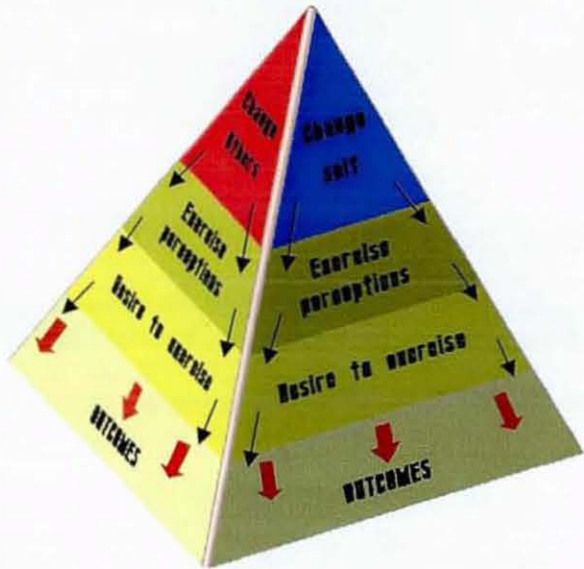
4.2.3. Behavioural Outcomes

4 2.3.1. Changing others

The 'change others' resolution strategy results in one or more of four outcomes depending on where the participant is on the perception of exercise and desire to exercise continua (Figure 4.7). When an exercise is perceived negatively and there is a low desire to exercise, the individual may become an 'opponent', i.e. they actively discourage peers in their reference group from exercising, or they may simply change their reference group to a less active one:

> "I am in a group of people who don't exercise regularly now, some in the past" *(R, female Inactive, aged 46)*

A person that views exercise in a more positive light and has a high desire to exercise may either encourage others to exercise ('crusader') or they may begin to identify with a more active peer group instead, such as new friends made at the gym.

> "I've gone along from time to time with various friends who have stayed a short while and not lasted as long as me" *(J, female Relapser, aged 56)*

> "I joined with a friend here because we joined Cannons first then we moved here and if I've seen her twice here in the whole of the two years that's all because we never arrange to come together and I just never bump into her. It doesn't worry me now though because I think, I go to yoga and,you recognise people and even though, you pass the time of day, you may not know all names but you do pass the time of day. You get your own little clique don't you?" *(S, female High User, aged 46)*

4 2 3 2. Changing or maintaining myself

Exerciser identities

Fundamentally, participants were divided into two groups: exercisers and non-exercisers These groups were extended to include high and low

exercisers, ex-exercisers (relapsed) and inactives. However, analysis of the different types of exercise and non-exercise behaviours suggested that the range of perceptions of exercise (important vs. unnecessary; enjoyable vs. a chore) and the range of desires to exercise (don't want to vs. ought to vs. want to) could be used to plot the four extreme 'types' of exerciser that emerged from the data. The resulting quadrant model used perception of exercise and desire to exercise on the axes (Figure 4.8). These will be discussed in detail later but consisted of 'Established exercisers', who had a positive perception of exercise and a high desire to exercise; these were divided into 'Peter Pans' who exercised to keep young, fit and good looking, and 'Socialisers' who exercised primarily for social reasons. 'Aspiring exercisers' had a positive perception of exercise but a low desire to exercise, 'Cautious exercisers', in contrast, had a high desire to exercise but a more negative perception of exercise and 'Reluctant exercisers' had a low desire to exercise and a negative perception of exercise. Examples of each of the exerciser 'types' taken from the participants are given in Appendix E.

This concept of an 'Exerciser Identity' has been examined in the past by Anderson and colleagues (D.F. Anderson & Cychosz, 1994, 1995; D F. Anderson, Cychosz, & Franke, 2001). They argue that role-identities help individuals give meaning and value to their past behaviour and provide direction for future behaviour. They found in their studies of medical centre employees and college students that exercise identity increased as minutes of participation in exercise per week increased. Cardinal and Cardinal (1997) looked at Exercise Identity longitudinally using participants of an aerobic exercise class. They found that over the course of the study, experimental group participants increased both their exercise behaviour and exercise identity, a concept examined in more depth in the next chapter as the implications of this and other recent research on exercise identity formation are discussed in-depth.

This research introduces the idea that there may be different types of exercise identities based on perceptions of exercise as well as exercise behaviour. Figure 4.8 shows the 'exerciser identity model' that was constructed from the analysis of the current study. Each quadrant represents

an extreme 'exerciser type'. The x axis represents the desire to exercise continuum, whilst the y axis represents perceptions of exercise from positive to negative.

The exerciser types can be summarised as follows:

'Established exerciser' identity

A desire to improve physically plus a positive perception of exercise leads to having an 'established exerciser identity'. It is important to these individuals to remain an exerciser in future as being an exerciser is a highly salient identity:

> "I've done sport from when I was at school and I've always done it and I wouldn't know how to stop. If I stop doing it then half of life's enjoyment would cease almost. It's just natural for me to take part in sport." *(male High user, age 49)*

> "It's just part and parcel of what you do really." *(C female Low user, 54)*

Figure 4.8. Exerciser identity model

Perception of exercise

positive

'Aspiring exerciser' identity

'Established exerciser' identity

'Peter Pan'   'Socialiser'

Desire to exercise   low   high

'Reluctant exerciser' identity

'Cautious exerciser' identity

negative

147

This group can be further split up into:

'Socialisers' are keen, regular exercisers who enjoy the social aspect of exercise as well as its benefits. They also have close friends and family that exercise regularly.

> "I find it very friendly here, in the changing rooms. I only do classes but I do a wide range and there's nearly always several people in each class that I know so we always have a good chinwag, so it's nice to see people as well." *(female High user, age 52)*

> "A lot of my friends, my age group, have played football or they've played cricket or they've played rugby or they've played all three! I suppose the majority of people I know and am friendly with have participated in sport and I suppose that's why we get on, because we have an empathy It doesn't have to be the same sport but we have an interest in sport." *(male High user, age 55)*

'Peter Pan' exercisers, however, recognise the benefits of exercise and enjoy the results they have achieved, but may not actually enjoy taking part. For them the ends justify the means. Looking and feeling good is very important to this group. They know that they are getting older but are determined to 'cheat' the aging process.

> "You can compete with younger people and you can achieve as well." *(female High user)*

> "I think with people in our age group, I think I must be the oldest person in this room, 'oh god I'm twice your age but I can do that' and I think that makes you feel good. The fact that you can!" *(female High user, age 50)*

> "It's aiming for a goal and then getting the goal and doing something else and going a bit further. I enjoy that." *(male High user, age 46)*

> "I exercise to ward off the ills of old age." *(male High user, age 48)*

'Aspiring exerciser' identity

A low desire to improve plus a high positive perception of exercise leads to an 'aspiring exerciser identity'. This identity, influenced mainly by others, leads to distractions and excuses, seeking approval and support, which then results in exercise having a relatively low salience in the identity hierarchy.

Aspirers understand the importance of exercise but do not really enjoy taking part, preferring to do other activities instead. They often find excuses and reasons not to take part. Their reference group do not exercise regularly and do not really support their efforts to do so, thus they may have a personal identity conflict, a social conflict or both that undermine their exercise behaviour:

> "It's quite dutiful for me. I can't say that I enjoy it that much. I've got to lose some weight and I've got to get fit for the summer and if I'm going to continue eating like I do then I've got to do something to burn it off!" *(male Low user, age 49)*

> "My family object when I say I'm not going to make tea, I'm going to the swimming pool." *(female Low user, age 50)*

> "then another week I'll just think 'ah sod it, I can't be bothered', if there's something on telly or it's a nice day or whatever." *(male High user, age 46)*

Aspirers are commonly relapsed exercisers or 'dabblers', i.e. those that go through a regular cycle of exercise and relapse as their desire to exercise is not sufficiently salient. These individuals may frequently go through the different 'review' stages or may never reach an equilibrium between their ideal and actual identities.

'Cautious exerciser' identity

A high desire to improve plus a negative perception of exercise leads to a 'cautious-exerciser identity'. *Cautious exercisers* are aware that they are getting older and have accepted it. They understand the benefits of exercise but also the risks involved. They may have a medical condition and/or have seen parents or peers die prematurely. They do not like to push themselves too hard and recognise their limitations. They like to be supervised and have expert advice.

> "I think you're more aware aren't you of heart attacks and obviously aging and things like that." *(female Low user, age 49)*

> "I think if you try and do things that you aren't capable of doing, if you go at it hammer and tongs like some people do I think that's bad for you. I think you've got to be, you know, have a certain

amount of responsibility towards yourself." *(female Low user, age 54)*

"There's been a lot of adverse publicity for older people doing too much exercise lately hasn't there? Causing blood clots and things, overdoing it, doing too much, this kind of age group." *(female Low user, age 51)*

"The trainers need to be well aware of what the changing needs of older people are." *(male High user, age 48)*

'Reluctant exerciser' identity

A low desire to improve plus a negative perception of exercise leads to having a 'reluctant exerciser' identity. This identity leads to distractions and excuses being made which then results in exercise having a very low identity salience. *Reluctants* do not really want to exercise but are doing so for health reasons; they may have been advised or instructed to take up exercise. They do not enjoy exercise, have little or no peer support and do not really consider themselves to be 'exercisers'. They may be wary of exercise and be reluctant to push themselves.

"That 'I've just got to do that'. You do it because you should." *(female Low user, age 54)*

"I never use the machines, but nobody's ever asked me, suggested I come and try it. One of the things, I've got high blood pressure so I haven't dared go on any machine. I would need someone to tell me exactly what to do." *(female Low user, age 50)*

4.2.3 2 Non-exerciser types

For the purpose of this report, non-exercisers have been divided into Inactives (never exercised) and Relapsers (former exercisers). However, analysis of the data also suggested that, based on the perceptions of and desire to exercise, the non-exercisers could also be divided into four extreme identity types (Figure 4.9). Examples of each of these types from the participants are given in Appendix E.

Figure 4.9. Non-exerciser identity model

Perception of exercise

positive

'Delegator' identity   'Procrastinator' identity

Desire to exercise

low   high

'Indifferent' identity   'Uncertain' identity

negative
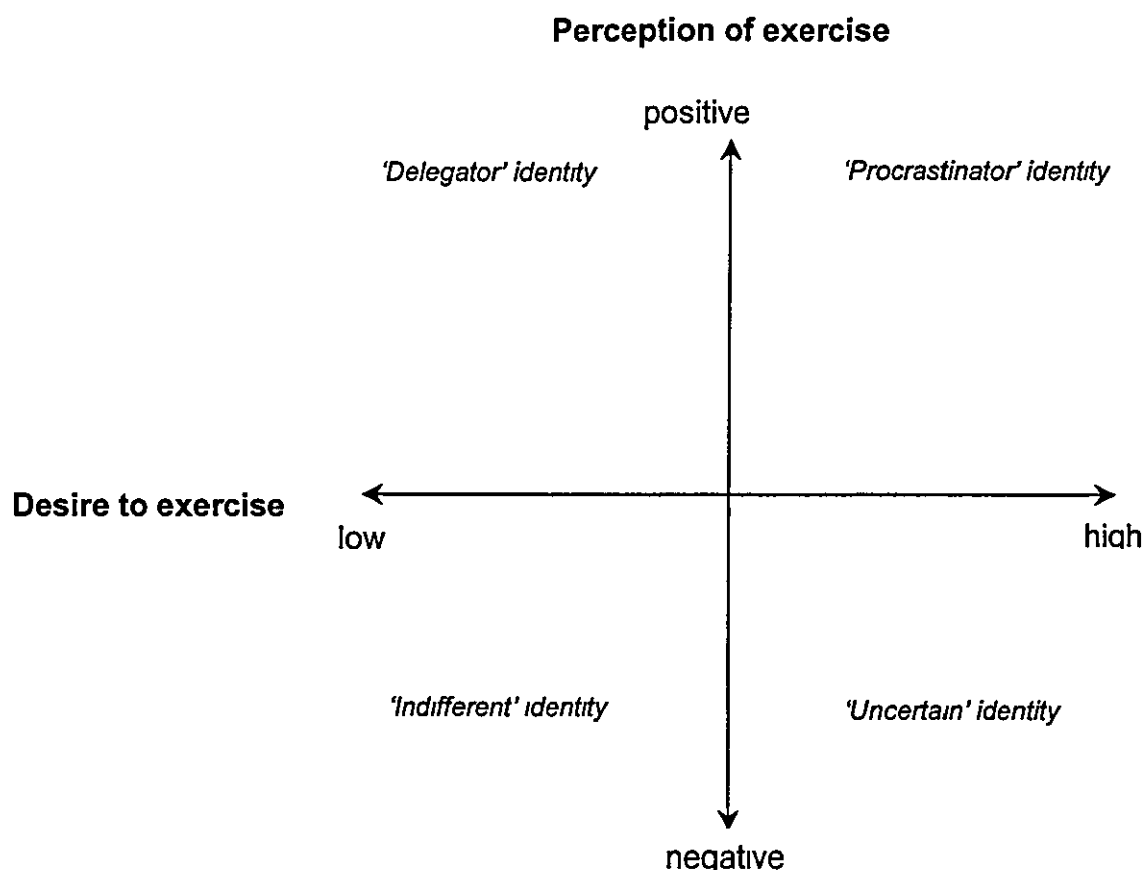
The non-exerciser types can be summarised as follows

'Procrastinator' identity:

A strong belief that exercise is beneficial, coupled with a high desire to take part in exercise leads these people to have a *Procrastinator identity.* These non-exercisers want to exercise and believe it would be beneficial to their health and their life if they did so. They probably have friends and family that exercise regularly and encourage them to do so. They often talk about exercise and may buy fitness clothes, books and magazines in an effort to become an exerciser but they do not have the motivation to actually exercise regularly. These non-exercisers would like exercise to be part of their identity but often find excuses not to exercise and always put it off until tomorrow:

> "I do intend to exercise but it's always tomorrow isn't it?" *(J, female Relapser, aged 48)*

"If I've got the ironing to do, if I've got the choice, the house has got to be done first. That's the main priority. I will come down here when the house is done, the washing's out, the garden's done. I will come down here then. I mean I know you keep saying you haven't got time but really if you prioritise your work you have got time. I had more time when I worked full time with three children that what I've got now and I'm part-time with no children. I had more time then 'cause I just kept going. Now I have time to sit with a cup of coffee and think 'shall I do that? Oh the sun's shining, I'm sat in the garden, I won't bother'" *(S, female Relapser, aged 47)*

'Delegator' identity:

A strong belief in the importance of exercise coupled with a low desire to take part leads to having a *'Delegator identity'.* These people believe exercise is a good thing, but for other people. They may have friends and family that exercise regularly and may be encouraged to join them. These non-exercisers like the idea of regular exercise but prefer other activities instead, thus exercise is not really part of their identity although a small part of them would like it to be:

> "Exercise is extremely important for other people, you know!" *(C, male Relapser, aged 54)*

Uncertain identity:

A low perception of exercise coupled with a high desire to take part leads to having an *'Uncertain identity'.* These non-exercisers may have been advised to exercise in the past or may have suffered an exercise-related injury as they would like to exercise but are worried about it, possibly not being convinced of the benefits exercise may have. They may have friends and family that exercise regularly and may feel threatened by them:

> "I have missed it but I think I needed that break because my neck's been really bad and I've been having physio. I've got arthritis in it so I really ought to do some exercise." *(K, female Relapser, aged 52)*

> "I should exercise health-wise. I'm taking medication for blood pressure and I should exercise but I have so much stress in the day it's just the inclination. I always seem to be rushing, getting nowhere fast." *(P, female Relapser, aged 46)*

<u>*Indifferent Identity:*</u>

A low perception of exercise combined with a low desire to take part leads to an *'Indifferent identity'.* These non-exercisers do not want to exercise as it is irrelevant to their lives. They do not see the point of exercising and believe they are fine the way they are. They are unlikely to have friends and family that exercise and do not receive encouragement to exercise more:

> "I don't particularly think about exercise. Exercise is not something I think of usually. I tend to think of myself as physically active." *(R, male Relapser, aged 54)*

> "For my health I feel I do enough. I walk certainly four miles a day, every day. I just couldn't fit anything more than that in really. I miss it, I do still miss it, but the dog was sort of an extra. The dog has taken up my exercise time." *(D, female Relapser, aged 49)*

4.2 3 3 The exercise cube

The emergence of the two quadrant models of exercise and non-exercise identities has led to the formulation of the 'exercise cube' (Figure 4.11 and Appendix G). The cube is a way of categorising the participants according to their behaviour, perceptions and motivations, as discussed above. The axes from the models developed for exercisers and non-exercisers (Figures 4.8 and 4.9) were combined using a z-axis to add in the behavioural dimension. Thus, Figure 4.10 shows the three axes, y = exercise perceptions, x = desire to exercise and z = exercise behaviour. Illustrating the outcomes in this way shows that all three dimensions are continua and that individuals can be plotted on any part of the graph, not just as the extreme exerciser and non-exerciser 'types' described above. As individuals in each quadrant have different exercise perceptions, desires and behaviours, they are motivated to exercise, or not, in different ways. Thus, the exercise cube provides a useful intervention tool that could be used to 'plot' the individual's needs (i.e. behaviour change or behaviour maintenance) and assess the most effective way to meet those needs.
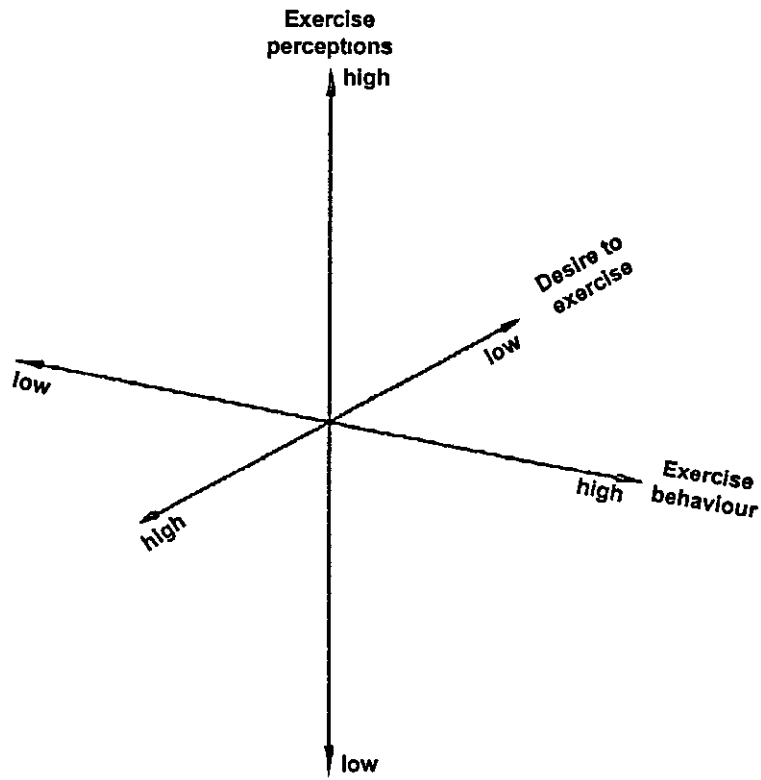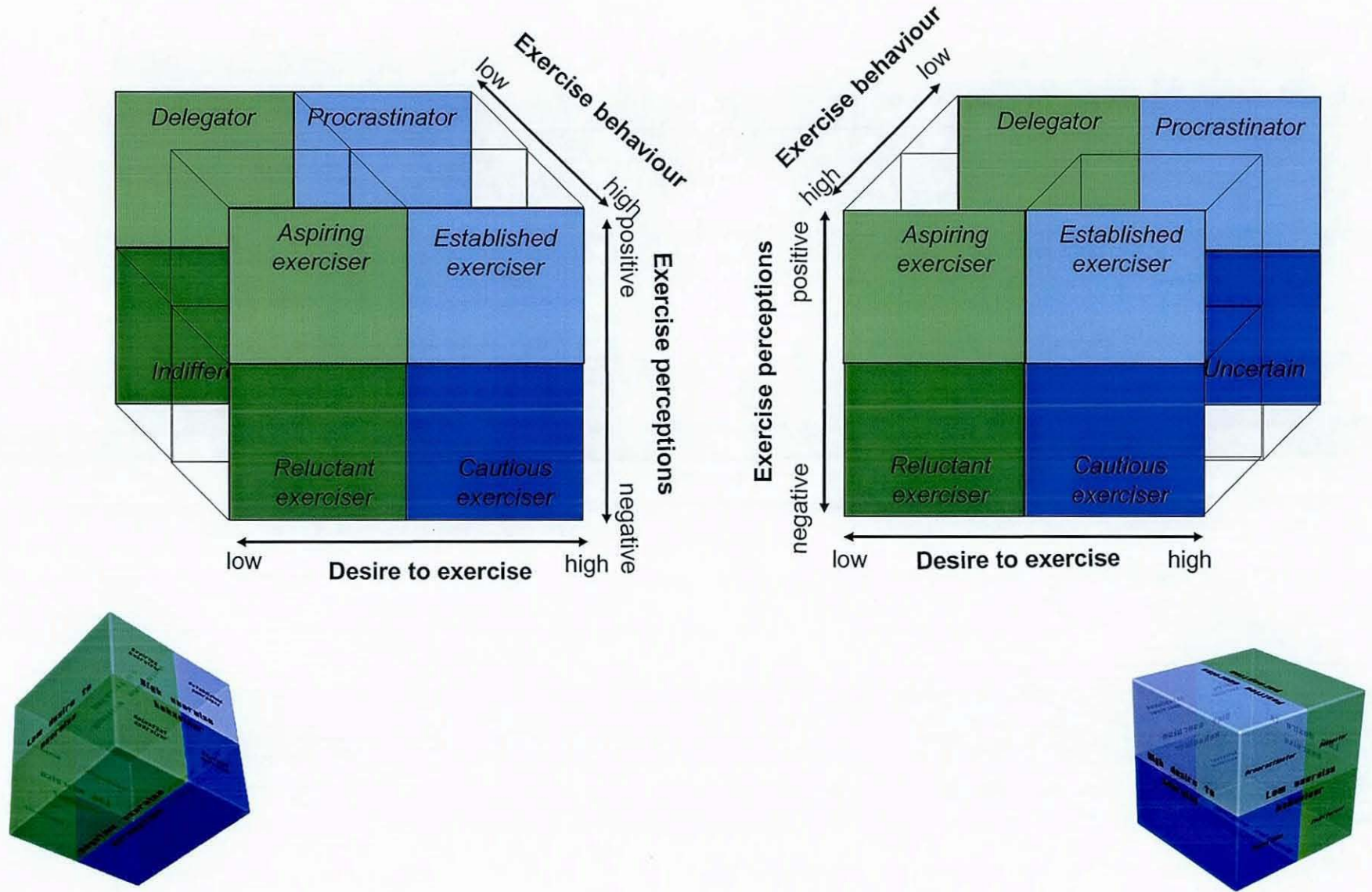
153

Figure 4.10. The exercise cube axes

Figure 4.11. The exercise cube showing all axes and positioning of each (non) exerciser 'type' (shown from two sides and in 3D)

4.2.4. Re-viewing

The final stage of the '(Re)viewing myself' process of exercise behaviour change addresses the changes in exercise behaviour that have been observed in the literature (Sallis et al., 1990). Fluctuations in exercise behaviour throughout the life stages, observed by several authors (King et al., 1992; Sallis & Hovell, 1990; Seefeldt et al., 2002), were examined in this study by the addition of relapsed exercisers to the participants interviewed.

Many relapsed participants, or current exercisers that had previously been inactive, discussed why they had become more or less active. Those that had previously been active described giving up their exercise routine due to illness or injury:

> "I think I stopped running because I got some injuries; I'm just beginning to remember now. I got some injuries and that sort of stopped me from running." *(G, male Relapser, aged 53)*

Or a change in circumstance, such as moving house or having children:

> "I suppose it sort of dropped off because your lifestyle and your priorities change." *(D, male Inactive, aged 51)*

> "I didn't do a lot of sport when I met my husband. My husband was the sporty one but the same happened with him, I mean he used to play rugby 3 or 4 times a week but when the children came along for the first years we'd stand on the touchline and watch and then after that his priorities were different 'cause he was working shifts so his weekends were time to spend with the family." *(L, female Inactive, aged 51)*

> "a change of lifestyle I suppose. I came back from overseas and did a degree when I was actually 36 so I went from sort of a fairly active, outdoor life to come back into academia to do a degree and I think I hadn't been married long so there was the, you know, the wife and a child and a house, that sort of thing, so I guess there were other factors that took priority." *(G, male Relapser, aged 53)*

Those that had recently taken up exercise, be it for the first time or after a break, differed between those that had had a definite reason for starting, such as a medical condition or a specific need:

> "I used to be very anti-gyms, very anti. I've always done a lot of walking, hill walking and climbing and gardening, been very active, and then five years a go I had pneumonia and ever since I've had

dreadful problems with my knees, arthritis in both knees and about a year and a half ago, I'd just had the second operation on my knee and I was actually desperate 'cause I could hardly walk, I bought a stick, I was at that stage, and they were talking about replacement knees and, I don't know what it was but something just made me phone up the gym. It was a special offer and I came here and spent a week here and I'm absolutely addicted to it now. I'm now reasonably fit again, I can walk miles and it's made the most enormous difference. So the last year and a half and it's been a really positive experience. I'm absolutely addicted to it now! *(Wendy, female High user, aged 46)*

"Well I did it because I had to get fit for an expedition and needed to lose weight and I needed to build up my stamina and cardiovascular fitness." *(Martin, male Low user, aged 53)*

"Slightly more specific. I played golf since I was in my teens but that was, once I started work and stopped playing rugby it was about all I did do. And then in June '94 I had an MI and then got more involved with the rehabilitation and then going on to doing more exercise. I'm actually involved with the Cardiac Rehabilitation unit in Milton Keynes." *(Nigel, male Low user, aged 51)*

and those that simply felt it was time for a change:

"Yeah that was the sort of age again, thirties, I stopped playing netball and wasn't as active, as fit as you used to be. Puffing when you got up the stairs and thought better do something." *(Female Low user, aged 51)*

"I was quite conscious that I wasn't as healthy in terms of how I felt as I possibly potentially could be and still could be and so decided that I'd join a club and made an effort to come on a regular basis and do feel better than I did before so that was my main motivator I suppose, was to actually feel better. Not 'cause of other people or anything like that but just, you know, things that I was doing in my own work and thinking 'God I'm knackered, I feel like a 60 year old!' and I wasn't." *(Alison, female High user, aged 46)*

"I joined because I was fat and hadn't got any energy." *(Simon, male High user, aged 49)*

These participants had, either consciously or sub-consciously, found a conflict between their actual and ideal selves and so had re-viewed their perception of 'who I am' and made the necessary changes in their behaviour to resolve that conflict and become 'who I want to be'.

Many of the inactive participants that had accepted themselves discussed 'needing a catalyst', such as medical advice, to make them exercise in the future:

> "I mean the only way I'd use something like that is if the doctor said 'you need to exercise', your heart's going to give out so you've got to go and do these things', and I might do it because I have to but out of choice definitely no." *(Alan, male Inactive, aged 55)*

> "I guess a fright, probably. A doctor saying to me 'you will die if you don't get your bum into gear and up into that gym." *(G, male Relapser, aged 53)*

> "I think you need a catalyst. You need something to, would certainly help, put it that way. I mean if somebody said to me, 'come on, let's have a crack at this eco-challenge, we're a couple of old farts but we've got a chance', I'd probably say, 'yeah, go on, we'll give it a go', and we'd do something. But trying to motivate yourself to do it without any external help or motivation is sometimes a bit difficult." *(George, male Relapser, aged 53)*

> I can't see exercise as being vital for me personally. I suppose to some extent I would be a difficult case to work with. I know from my experience of life and what I've told you, it would be very difficult to convince me to go out and do various things. I'd have to have very strong arguments, probably my doctor would have to tell me. That would be the only way I would be moved to exercise, if I thought that exercising might help." *(G, male Inactive, aged 45)*

4.3. Chapter summary

The participants in this study all appeared to be reasonably health conscious, with only one smoker taking part and all considering themselves to have healthy diets and lifestyles, however, as expected, exercisers had lower BMI's than non-exercisers.

The findings of this research have been represented by the process of '(re)viewing who I am' that is composed of three separate parts:

i. Self-assessment described the process of establishing one's own identity by comparing one's reference group with one's self and the way one is perceived by others. This leads to a 'normality score' being obtained (am I normal or different?) which is contrasted against the ideal self (who I am vs. who I want to be). If a difference occurs then:

ii. an identity conflict may be present. This can be related to the existing literature on identity theories and role conflict. The conflict can be resolved using various strategies that depend, in part, on issues of control and perceived ownership of one's own health. The resolution strategies involve either a maintenance of self, a change of self and/or an attempt to change one's reference groups. However, these strategies represent only an intention to change; the actual behavioural outcome depends on other factors, such as a positive or negative perception of exercise, a desire to exercise and the salience of being an 'exerciser' in one's hierarchy of role identities.

iii. The behavioural outcomes identified involved either changing one's reference group by inspiring them to change (opponent or crusader) or by changing to a different (more or less active) reference group. This outcome is accompanied by either a change or maintenance of one's own behaviour.

Current exercise and non-exercise behaviours have been described using the 'Exercise Cube'. This model can be used to plot the different 'exercise types' (Established, Aspiring, Cautious and Reluctant) and 'non-exerciser types' (Procrastinator, Delegator, Uncertain and Indifferent) as extremes on a 3D quadrant model, the theoretical and practical implications of which are described further in Chapter five. An illustration of living examples of each of these 'types' are presented in Appendix E.

Finally, a re-review process was identified that established the '(re)viewing who I am' process as an ongoing procedure that occurs several times throughout a life course. The following chapter will consider this in more depth and will relate these findings to current theories on identity and behaviour change.

4.4. Ethnocomment: Coming to terms with it all

At the end of the first year a report was produced for the sponsors that described the various exercise perceptions and behaviours observed and a number of findings on their clubs. To be honest they weren't interested. By this time, everyone involved in the project had been dismissed, along with an entire line of middle-management due to a buy-out of the chain following financial difficulty. Needless to say, that was the last we heard of them.

A new year, new internal funding and a huge relief. No longer confined to unrealistic deadlines and a need for press releases, I could concentrate on doing the data justice. It was now that I began to take more of a personal interest in the project and began owning it. Before I had felt like a mere workhorse, dutifully carrying out the necessary tasks, now I became the researcher I wanted to be and took complete control of the data collection and analysis. As the analysis unfolded I became increasingly excited about the opportunities opening up. It was clear that this was an under-utilised method in this area of psychology and I felt I was actually doing something original and useful, rather than doing something 'old' on a new age group.

During my 'previous' analysis I had identified various exerciser and non-exerciser 'types'. However, I had no idea as to what made these people behave differently other than the fact that their perceptions of exercise and health differed. I found the temptation to relate my findings to established models and theories overwhelming and flirted briefly with self-determination theory (Deci & Ryan, 1985), amongst others, as the key to understanding my own data. I soon realised that squeezing my data into existing theories without giving them opportunity to tell me what was really going on was not going to make for the best project.

My response to this confusion was two-fold: I embarked on a second round of interviews, this time one on one encounters with inactive (never exercised and ex-exercisers) participants. These groups had been underrepresented in the focus group interview stage and I wanted to talk to

these people further. Unfortunately, it wasn't possible to speak to the same people so I had to find some more willing participants. Again this was a big problem. It's not really surprising that people that don't exercise don't want to talk about it. They either feel guilty and don't want to be judged, or they have absolutely no interest in it and can't see the point. After all, if someone wanted me to take part in an interview about darts or fly-fishing (two things I know nothing about) I don't think I'd be too quick to volunteer. There was also the issue that trying to interview people that naturally don't participate or have dropped out of something is something of a paradox. Did I really have the right to be surprised when people that had given up an exercise programme pulled out of an interview with me?

Whilst rounding up more participants I also dived once more into the literature. This time I was looking for specific topics thrown up by my first round of analysis. The main areas I delved into were the prominent social psychological theories, such as social cognitive theory (Bandura, 1986), that seems to be the staple of the exercise determinant literature and some key papers on combining these theories, as a few authors have attempted to do (Burke et al., 2003; Maddux, 1993; Stets & Burke, 2000). I did this mainly to familiarise myself with the current issues in the area but also to see where my research could be located in this literature.

As my analysis had led me to think about different 'types' of people (i.e. exercisers and non-exercisers, and established exercisers and reluctant exercisers), I also took a peak through the door of identity theory. A small number of researchers had published papers on exercise identity (D.F. Anderson & Cychosz, 1994, 1995; Kendzierski, 1988; Whaley & Ebbeck, 2002), but it didn't go very deep so I took the plunge and dived into the social psychological world of identity theory (which I soon found out consists of both identity theory based on symbolic interactionism (Stryker, 1980) *and* social identity theory, related to processual interactionism (Blumer, 1969)). My reading took me to ideas on identity change (Deaux, 1992) and identity conflicts (Abrams, 1992), which fascinated me as my participants had frequently described their own transformations from exercisers to non-exercisers and vice versa, often in connection with a life-

changing event, such as becoming a parent, a major operation or a change in career. My interest in this even led me to some useful correspondence with one of the main authors in this area, Peter Burke.

My tour through the library shelves also took me to psychological literature on 'becoming middle-aged' (Schaie & Willis, 2002). As I had been reading my transcripts I had come across many comments on 'being' or 'feeling old', or on 'feeling young'. People had told me their opinions on being middle-aged, their hopes and fears for the future and I wondered if this perception of aging (be it positive or negative) was connected to their perceptions on health, exercise and ultimately their behaviour.

I eventually emerged from my books a more educated, and more perplexed student. Again I had ideas and questions but no answers. I did, however, have a revised interview schedule (now containing questions on role identity and attitudes towards aging) and a list of willing participants. Off I went again.

4.4.1. Sympathetic friends

Year three saw a new supervisor (Mike Waring). This was the boost I needed – finally a grounded theory practitioner to put me straight. His first opinion of my efforts was that I was clearly struggling to get my head around grounded theory and that my analysis, although useful, failed to give the *process* behind what I was observing. I felt elated! A diagnosis to the problem at last - now I could find the cure.

We decided that I would re-analyse all my data, using my experiences from the last couple of phases, my reading and my newfound grasp of GT. Re-coding was arduous and I managed to get my laptop stolen during this process and lost my work *(that will teach me to back up more regularly)* but I got there in the end.

As I moved around Mike's helix model (1995; 2001) of GT, to-ing and fro-ing between the data and theory, my data started to make sense. I had many small 'aha' moments and began to look forward to meetings where I could

share my ideas. I would like to say that this was a swift, enjoyable flight through the analytical maze, but I would be lying. In truth it was a slow, exhausting drag where I hit many dead ends and frequently wondered if I would ever get out at all. I was now at the 'don't care if it changes the world, just want to get it done' stage of my PhD; just six months to go and still the light at the end was dim. During this time I contributed to rainforest destruction considerably, documenting every idea and discovery with memos, diagrams and pictures, anything that would aid the dreaded writing up process.

Eventually it all came together – the (re)viewing myself process and its outcomes, the exercise cube. The cube was a result of my analysis coming full circle back to the exercise 'types' I had identified early on in my analysis. The concept of defining behaviour and change mechanisms in 3D seemed obvious to me and I was surprised by the reaction I received from others. My supervisors were quite excited by the paper models I brought them and this has inspired me to delve deeper into the possible theoretical and practical applications the cube might have (see chapter five). However, 3D modelling is not something we often do in psychology so I had to call in favours from friends in the Engineering department to create the diagrams for me.

Once I had stopped analysing my findings I returned to the literature, particularly that on identity theory that seemed increasingly relevant. I found it difficult at first to persuade others about the idea of identity in exercise research but stuck with it regardless. This part of my journey led me to be convinced that people's individual, social and cultural identities strongly influence their everyday behaviours and that it is an area that warrants further investigation.

"Exercise is done against one's wishes and maintained only because the alternative is worse"

George Sheehan, Physicist, Author and Running Enthusiast (1918-1993)

"I believe that every human has a finite number of heart-beats. I don't intend to waste any of mine running around doing exercises"

Neil Armstrong, Astronaut (1930 -)

Chapter Five: Implications

The current research, whilst providing a framework for identifying the exercise behaviour of the participants, has thrown up many questions and observations as to how exercise participation research and practice should advance. This chapter deals with the theoretical and practical implications of the findings presented in the previous chapter, relates them to the work of other authors and suggests future directions that will bring together currently confused and competing ideas on the determinants of exercise behaviour.

5.1. The Exercise Cube – Theoretical Implications

The exercise cube described in the previous chapter is the product of the (re)viewing myself process that emerged from the data to explain the observed phenomenon. This novel idea of categorising people according to their behaviour, perceptions and attitudes provides a basis for much theoretical work and practical applications. However, in order to develop this concept into a useful tool for planning and implementing interventions, the theory behind the cube must be examined before practical implications can be discussed.

The exercise cube provides a framework for identifying exercise (non)participation. Understanding why individuals do or do not take part will enable researchers to develop effective interventions to promote future participation. However, it is not the intention of this thesis to create yet another behaviour change theory. As discussed in chapter one, researchers have devoted many decades to exercise determinants research and have examined hundreds of variables that each contribute to participation in greater or lesser ways, directly and indirectly.

5.1.1. Theories of behaviour change

Research on exercise behaviour over the last decade has focussed largely on the problems associated with lack of participation and on variables that

may improve or prevent adoption and maintenance of a regular exercise 'habit'. Unfortunately, despite extensive work in this area, researchers have so far failed to ascertain the precise reasons why a significant proportion of people are not active enough or with any tangible suggestions to promote the uptake of exercise.

Human behaviour is complex and we may never come up with a single implicit reason as to why people do or do not exercise or with one magic remedy to increase the proportion of people who take regular exercise. However, researchers have been able to narrow down the large list of variables and theories to just a few that appear to significantly influence exercise behaviour (the most notable of these are drawn from Bandura's (1986) Social Cognitive Theory).

The problem facing researchers and health practitioners appears to be that they are stuck in a cycle. Researchers are confident that variables such as self-efficacy influence exercise behaviour to a certain extent, but there is little agreement as to how all the variables fit together to give a comprehensive theory of why some people exercise and some do not. The ideal would be to establish a model that states when a certain set of conditions are in place then a person is more likely to exercise on a regular basis, whilst under a different set of conditions it is unlikely that this person witl exercise at all. However, until researchers agree on methods of measuring variables and on the theories they are derived from then an ideal model will remain elusive. The problem also remains of testing large-scales models with accuracy to provide any useful information.

One other problem confounds the issue further: there appears to be little willingness to integrate theories that are derived from the different disciplines within psychology, sociology and social psychology. Dzewaltowski (1994) expressed the concerns of many when he defended Bandura's social cognitive theory and suggested that research be carried out within one theoretical framework. However, as Biddle and Mutrie (2001) point out,

> "although Dzewaltowski is correct in saying we need to establish one language, we are not yet in a position to know what that language is. Even his own research has proposed testing one

theory *against* another (Dzewaltowksi et al., 1990), which suggests that one theory is better than another. One may well be better, but at this stage there is so much conceptual overlap that we need to test a variety of constructs and models together, not in competition, in order to better understand physical activity determinants." (Biddle and Mutrie, 2001, p.133)

Thus, many researchers appear to prefer to argue which theory is the best rather than look for common ground between different ideas. Until they can put aside their differences, the search for that one unifying theory that explains with confidence why people do or do not exercise will remain a mystery.

Many behaviour change theories have been proposed to explain exercise participation, including the Transtheoretical model (J.O. Prochaska & DiClemente, 1983), Natural History model (Sallis & Hovell, 1990), Locus of Control (Rotter, 1966), Self Determination Theory (Deci & Ryan, 1985), Self efficacy theory (Sonstroem & Morgan, 1989), Theory of Reasoned Action (Azjen & Fishbein, 1980) and Theory of Planned Behaviour (Azjen, 1988), Health belief model (Becker et al., 1977) and Protection motivation theory (Rogers, 1983) (See Biddle and Mutrie (2001) for a comprehensive review of the above models and more).

Thus, although useful in establishing the determinants of exercise behaviour, recent research can be said to be too specialised. Much has been learned over the past decade and it is now time to put that knowledge into a bigger picture that will start to explain exercise behaviour in a way that will influence future health promotions and interventions. The aim of the current research was to go 'back to basics' and identify, from a group of middle-aged adults, the main variables that influenced their exercise behaviour. The (re)viewing myself process and subsequent outcomes (the exercise cube) provided such a framework and can now be used to integrate existing theories of behaviour change into an all-encompassing tool that will explain current and possibly even predict future exercise participation. The theories that appear to relate most closely to the findings of the current research come, not from the sport and exercise determinants literature but from social psychological theories that explain behaviour through the concepts of self and identity.

5 1.1 1 A social psychology model

In 1991, Burke introduced his Identity Control System that explained the cycle of identity processes (Figure 5.1). He conceptualised a feedback loop consisting of four components: a *standard* (the set of self-meanings); an *input* from the environment or social situation, including one's reflected appraisals; a *comparator*, that is a process that compares the input with the standard; and an *output* to the environment (meaningful behaviour) that is a result of the comparison (Burke & Reitzes, 1991, p.837). The current research found appraisals from the social situation to include perceptions of others *and* our perceptions of ourselves. Burke (personal communication, 5th May, 2004) agreed:

> "I agree with your attempt to represent perceptions not only of
> what others perceive of ourselves (reflected appraisals) but also
> our own actual-self in the situation. In my own diagram ... the input
> side labelled reflected appraisals includes, in my own mind, our
> own self-perceptions. I never quite liked the label that implies only
> reflected appraisals."

This concept thereby explains behaviour in terms of one's identity control system in terms of an output (behaviour) that is modified in an attempt to change the input (feedback from others) to match the internal standard. Thus, this social psychological take on behaviour change is far more holistic in its approach than more 'traditional' models of exercise behaviour change as it acknowledges the interaction of personal factors, social factors and the environment and can also operate at different levels (micro-behaviour changes to macro-identity changes) and may provide a mechanism to explain rates of change.

Burke's recent work has further developed his ideas on identity. He explains that there are two ways in which self-meanings (that define the identity standards) can change: the strength of response along a particular dimension (where the dimension remains fixed) and the dimensions involved for a particular stimulus (Burke, under review). Most of his work concerns the former but he does acknowledge that dimensions can change over time, such as what it means to be masculine or feminine or young or old can become irrelevant or more important compared to other dimensions of

168

meaning. Thus, the change in these dimensions may affect the identity standard that holds the information of where one is located on each dimension (e.g. masculine/feminine, not very sociable, middle-aged) and behaviour will be affected as one acts to confirm these definitions (personal communication, 16th April, 2003).

Burke (under review) explains that identity change is ubiquitous and is usually small and slow, however, changes in identity standards can occur following either a change in the environment (such as the birth of a first child), or when the person has multiple identities that are related to each other and share meanings (such as role conflict). Thus, he identifies two general sources of systematic identity change: "*persistent problems with the verification of a particular identity*, and *multiple identities whose verifications require opposing meanings* to be manifest in the behaviour of the individual"* (Burke, under review). Identity change will be discussed in detail below.

Figure 5.1. The Control-System view of the Identity Process: The cycle of meaning showing possible points of interruption at A and B (After Burke, 1991, p 838).
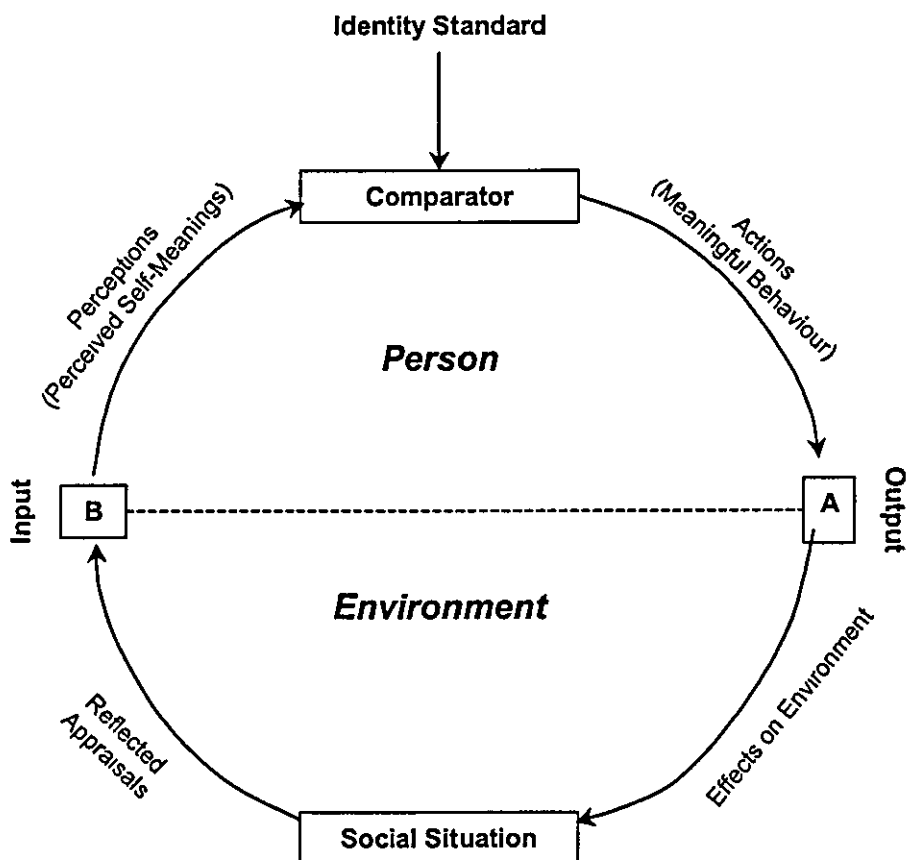
5 1.1 2. Behaviour change using Burke's model

Burke (1991) explains that behaviour is a product of the entire identity feedback system and changes when an imbalance occurs between the identity standard (comparator) and the input (reflected appraisals). He also describes four general conditions that may change behaviour or the identity standard that interrupt the identity process:

1. The broken loop occurs where the identity control process is interrupted by external events. This can arise where the individual's behaviour enters the environment, such as the individual's running club being disbanded. In this situation their behaviour may have little or no effect on the situation and the subsequent negative feelings may result in a loss of the identity (no longer being a 'runner'). The loop can also be broken at the point where input is received from the environment, such as a doctor advising an inactive person, who was previously content with their inactive identity, to exercise more for serious health reasons. If the individual has a predominantly external locus of control over their health (believes their health is controlled more by others and/or chance) and a low perception of exercise then they will not perceive their behaviour (inactivity) as having a negative effect on their health and may feel confused or even irritated with the doctor. Thus, this instance deals with the person's perception of the situation, rather than their behaviour.

2. Interference from other identities may occur where there is a negative connection between two or more identities, for example time constraints may result in two role identities competing with one another (such as a person's darts team moving their meeting night to the same time as their daughter's ballet class), or the individual may be over-committed to one identity and pulled away from engaging other role identities (e.g. a marathon-runner may be reluctant to socialise with his new colleagues because he doesn't want to interfere with training).

170

3. An over-controlled identity system occurs where the individual attempts to match the reflected appraisals to the identity standard almost exactly. These individuals must monitor and adjust their identity process frequently to avoid discrepancy and this frequent adjustment can interrupt other processes. For example, someone who displays signs of obsessive exercise behaviour may allow their work and personal identities to be affected as they put more time and effort into maintaining the exercise identity.

4. Finally, episodic identities are caused by a lack of performance feedback during times when the role is not being rehearsed, such as a low-use exerciser whose immediate peers are inactive, and therefore only receives feedback relative to being an exerciser from her exercise-class mates once a week. As people require practice and feedback to learn how to change their self-meanings to match their identity standards, when the role is episodic and continuous feedback is not possible it becomes more difficult to maintain close congruence between self-perceptions and identity. Thus, in the above example, the person may eventually drop out of her exercise class in favour of other activities that confirm more consistent role identities.

Thus, Burke's model of behaviour change as an output of identity maintenance provides a basis for understanding both mechanisms and rates of behaviour change. His later research introduced a second-order feedback loop that comes into play when behaviour or perception change has not been successful in maintaining congruence between the identity standard and the reflected appraisals. Whereas Burke took his research in the direction of identity change, the current research has developed these early theories more towards explaining behaviour change in relation to exercise participation (see below).

5.1.2. Identity conflict

The concept of identity conflict was introduced in Chapter Four. It is discussed further in this section as it is a link between minor behaviour

changes and major identity changes. The concept of having multiple role identities will be discussed first, with the notion of identity salience being described more in-depth than in the previous chapter. This will lead to the next section which deals with conflict resolution (i.e. identity change).

5.1.2.1. Multiple roles

The notion of there being multiple selves and that each has a varying degree of value placed on them has its roots in James' (1890) early work. He argued that we have as many selves as distinct groups whose opinions we care about. This multiplicity of role identities means that roles can either complement or compete with one another, which leads to the notion of identity salience. Stryker (1968; 1980) theorised that identities are hierarchically ordered in terms of their probability of being invoked in a given situation. His hypothesis that the salience of an identity increases as the commitment to that role, which gave rise to the identity, also increases has been supported by several researchers for student, friend, child, worker, athlete, religious person and dating person (college undergraduates) (Hoelter, 1985), mothering identity (Nuttbrock & Freudiger, 1991), spousal and gender identities (Burke, under review) and athletic identity (D F. Anderson, 2004; Brewer, Van Raalte, & Linder, 1993; Good, Brewer, Petitpas, Van Raalte, & Mahar, 1993) amongst others. Thus, if identities are cognitive bases for defining situations and receptivity for certain cues for behaviour, the higher the salience of an identity relative to other identities, the higher the probability of behavioural choices attached to that identity (Stryker & Burke, 2000).

Commitment

Role identities are thus organised hierarchically in the self-concept. The prominence of an identity depends upon the degree to which one: 1. gets support from others for an identity, 2. is committed to the identity, and 3. receives extrinsic and intrinsic rewards from the role identity. The more

prominent the role identity, the more likely it will be performed in a situation (Stets & Burke, 2003).

To relate this to the current research, a person is likely to have 'exerciser' as one of their role identities if they have a social network in which exercise is relevant, for example friends and family that play sport or go to a gym regularly. This can be past or present. However, that role identity will interact with others, such as being a parent, spouse, employee etc. These roles will vary in salience at different times, i.e. from 9am to 5pm employee may be most prominent, whereas being a parent may take over after work whilst picking children up from school and completing domestic matters such as shopping, cooking, etc. The importance the person places on each of these identities depends on their commitment to that identity; this, in turn, will influence the behaviour of the individual towards that identity. For example, a women may have a role identity related to an aerobics class she attends twice a week with a friend, however, she is also a mother, a wife and a keen bridge player. These role identities may conflict if her husband falls ill, her children need to be taken to an activity or if an important bridge event arises on the same evening she is scheduled to go to her aerobics class. Each scenario affects a different role identity and the behaviour she chooses will depend on the role identity that is most prominent in her hierarchy.

What influences the ranking of an identity in the salience hierarchy is the degree of commitment an individual has to the identity. Stets and Burke (2003) state that commitment has two dimensions: a quantitative and qualitative aspect. The first reflects the individual's ties to the social structure where commitment reflects the number of persons that one is tied to through an identity. In the latter, the stronger or deeper the ties to others through an identity, the higher is the commitment to the identity. Thus, in the above example, the woman may feel justified cancelling her aerobics class with her friend to go to a bridge event with several members of her bridge club as she will only be letting one person down as opposed to several. However, she may also cancel an event with her bridge club because her child is ill as her ties to her child are stronger than her ties to her bridge club.

Burke and Reitzes (1991) identified two processes that maintain an identity and serve as bases for commitment: rewards and positive evaluations of the identity, which form the cognitive base of commitment and ties to others as sources of 'we-ness' and warmth, which form the socioeconomical base of commitment. Thus, a man who is a member of a football team that are doing well in the league may have to reconcile between his desire to play, and possibly win the cup, in a match on Saturday and his family duty to look after his sick child.

The first component of commitment is the degree or extent of interpersonal interaction the individual has within society, based on a certain role. Abbott et al. (1999) cite the example of an athlete who is highly committed to a baseball identity having many baseball-related relationships. The second component of commitment, the depth or intensity of the role-related relationships is illustrated by the example of a committed athlete having baseball-related relationships in the other non-sport aspects of the athlete's daily life.

Thus, the salience of identities have important implications for how one behaves. Stryker and Serpe (1982) demonstrated that the salience of religious identities predicted time spent in religious activities, whilst Callero (1985) showed that the salience of a donor identity predicted the frequency of blood donations and that commitment to others in the blood donor community influenced the salience of the donor identity. Abbott et al. (1999) studied the salience level of sport identity (baseball) and demonstrated a significant different in choice behaviour between the high sport salience group versus the low and the medium sport salience groups.

Although the salience and subsequent activation of an identity have been acknowledged to be influenced by the person's current tasks and goals, the source of these goals and purposes has generally not been considered (2000). This personal identity may have important implications in relating this research to exercise behaviour as whether the goal of exercising is intrinsically or extrinsically motivated may affect the salience of the exercise-related identity and the type and number of occasions in which it is activated.

Stryker and Burke (2000) discuss the way research is beginning to show how social structures depend on the functioning of identities. Burke and Stets (1999) present evidence that when several persons interact in a common situation that mutually verified the identities each holds, their commitment to one another increases. Further, they begin to view themselves as a group, i.e. a new social structure. For example, a person may meet a couple of his colleagues in the park whilst out jogging. They may decide to jog together for a mile or so and may arrange to meet again the following week. Repetition of this behaviour, combined with discussion about it at the workplace will confirm each individuals' identity as a 'jogger' and will have created a social structure for that identity. Discontinuing the behaviour may result in feeling they have 'let the others down' or that they will no longer be able to keep up with the group. The group as a whole may be competitive and supportive of each other and may encourage members to challenge themselves more than they would have done without group membership, such as to run further or to enter a race. Achievement of these goals, along with the social rewards of membership of this group, will provide both extrinsic and intrinsic rewards, which will, in turn, encourage commitment to the new identity.

Energy expansion theory

Discussion about multiple roles tends to take the position that they are a source of psychological stress and strain. This approach assumes there is a finite amount of time and energy and as each resource is spent on one role, there is less left for other roles (Snyder, 1985). For example, the person that devotes a large amount of time and energy to exercise is seen to have less time and energy left for being a parent. However, Snyder (1985) takes issue with this and uses Marks' (1977) energy expansion theory to explain that the "human physical and social activities to which we are seriously committed often produce more energy rather than reduce. According to this view we have ample time and energy for all roles to which we are highly committed, and we feel more energetic for having done so" (p.211).

This view was also suggested by the current research as some of the exercisers interviewed discussed feeling more energetic after exercise:

> "I drive a lot in my job I travel all over and sometimes I've been on the road for 5 hours in a day and it's easy to go home and just lie on the settee and think 'oh God I'm tired', but it doesn't actually do you a lot of good. All you're thinking is 'God I'm tired'. I find if I'm really really tired the best thing I can do is just come down here and maybe just have a sauna or something but it focuses your mind away from being tired so you feel a bit better, in a perverse sort of way!" *(Catherine, female Low user, aged 54)*

Tiredness is often cited as a barrier to exercise participation, included in the current research. However, many exercisers interviewed felt that exercising regularly gave them more energy to live their everyday lives (in other role identities):

> "But for me it's not the physical benefits that have done it for me, it's the mental benefits. And I feel much more positive about life and much more energetic and just have a different outlook now."*(Sue, female High User, aged 46)*

> I think it's quite useful to be physically tired instead of mentally tired. Until recently I was deputy head of a sixth form college and, I mean, I used to come away from that feeling wrecked and, I mean, there was nothing physical about that just dealing with disciplinaries and all sorts of nonsense and it was so much better to get physically tired, just working out on a machine and then you could actually sleep." *(Male Low user, aged 49)*

Time is often seen as a scarce resource and, as discussed earlier, is cited as the main barrier to exercise participation. However, as well as the increased energy, exercisers also described exercise giving them a 'positive outlook on life' and discussed occasions when they had wasted their free time and had been left feeling lethargic:

> "I'd like to think that was true but I got made redundant at Christmas so I had a whole month before I got part time work and I didn't come once. I mean I thought 'that's great I'm going to be at the gym every day' like those other people I used to see. But the trouble was I was so busy doing other things and also feeling sorry for myself; there was this sort of dreadful inertia and I actually didn't come at all." *(Martin, male Low user, aged 49)*

> "In the school holidays although I come more, I don't come 'cause I waste so much time. Because you just switch off." *(Yvonne, female Low user, aged 51)*

Thus, as Snyder (1985) concludes, rather than assuming that each role identity will automatically lead to strain and conflict because of time and energy scarcity, time and energy may be considered products of role bargains, negotiations and accommodations based on the level of commitment to the role identities. He also suggests that there may also be an additional effect as individuals' personal well-being benefit further from participation in more than one role:

> "You know, I think the busier you are, the more you can fit into your life." *(C, female Low user, aged 54)*

> "I think time's an issue but what I've found is that it actually makes me leave the office. If I've thought to myself 'right I'm going after work', it encourages me to do that rather than stay and just keep on working. So your time's a barrier but it's also a positive thing as well." *(Rose, female High user, aged 53)*

Thus, instead of being an additional 'chore' that provides role conflict and restricts valuable time and energy from other, preferred identities, being an 'exerciser' can be viewed as complementary to other identities as it enhances the energy and time management skills of the individual. This idea of multiple identities being related to and influencing each other (such as being an exerciser may influence someone to encourage their children to be active by taking them to sporting activities, thus spending 'quality time' with their child and confirming a 'good parent' identity) has been suggested by Burke (forthcoming), who explains that particular combinations of identities are more influential in terms of increasing or decreasing stress or well-being when applied to voluntary, as opposed to obligatory role identities. He points out that many researchers agree that identities that have common meanings are likely to be activated together whenever those meanings are present in the situation. Deaux (1992) also suggests that identities that share many meanings are located near the top of a prominence hierarchy and may work together to control the meanings of identities lower in the hierarchy, i.e. with a lower salience.

5.1.3. Identity change

5 1 3 1 Mechanisms

The identity hierarchy can be likened conceptually to Fox's hierarchical model of self-concept where a general self-concept controls and is controlled by sub-self concepts (such as academic, social, emotional and physical self-concepts) that can each be sub-divided into sub-areas that relate to specific situations (Fox, 2000). Identities that are lower down the hierarchy are subject to constant change in order for them to become aligned and complementary to perceptions that relate to higher-order identities. Burke (under review) developed his 1991 identity control theory (ICT) to incorporate this into a *hierarchical* perceptual control theory where an individual will conceptualise a self-meaning standard for a particular identity and will behave as close to that standard as possible (see Figure 5.2). If the individual feels that they are wavering from that standard, they will change their behaviour accordingly for lower identities or may even change lower level standards for higher level identities. Burke calls this the self-verification process and describes it as, "a dynamic, ongoing, continuous process of counteracting disturbances that occur in the situation. Such disturbances may be the result of others' behaviour in the situation, one's own behaviour in the situation, or ongoing physical processes in the situation" (Burke et al , 2003).

Thus, in Figure 5.2 behaviour is a function of the output of the comparator and changes the meanings in the situation. The discrepancy between the perceptions and the identity standard not only drives behaviour but also produces an emotional response that provides some motivation for reducing the discrepancies (Burke, under review). However, this model develops the previous one in that it has a higher level control system, the output of which is the identity standard (identity 0), that influences the lower-level system (identity 2). Thus, it is the higher-level system that changes the meanings in the lower-level identity system.

178

Burke (under review) explains that the higher-level control system relates to identities associated with a master status or a personal identity that operates across role identities and situations. This higher-level system controls its perceptions by altering its outputs, which are the standards of the lower level systems (Burke & Cast, 1997; Tsushima & Burke, 1999). As both higher- and lower-level systems are continuously operating, not only are perceptions and behaviours operating, so too are the identity standards. However, Burke hypothesises that the higher and lower control systems operate at different rates (Burke, under review).

Thus, Burke's theory suggests that behaviour change is influenced by the identity standard of higher-level control systems. However, if a change in behaviour fails to reduce the discrepancy between the perceptions and the identity standard, or if behaviour change is prevented for some reason, then, over time, the standard will continue to change toward the perception until the discrepancy is reduced to zero. For example, an exerciser who is prevented from exercising due to a major operation will change their perception of their inactivity level to one that is acceptable and does not cause them stress as they are forced to rest. This standard may be permanently changed, even if the persons' situation changes (they recover from the operation), as the current research found:

> "going into hospital for the hysterectomy and again they say you recover much more quickly from things if you're fairly fit and I think that's very true. When I was able to start exercising again... of course there was the sort of period of enforced idleness and slowly got back and, but never really went to the gym again on such a regular basis." *(Jennifer, female Relapser, aged 56)*

> "up until approximately three years ago I used to regularly be involved with what I would call exercise, not sport. I used to go to the gym regularly, I used to swim regularly, cycle, run a lot, every day I would do something and I enjoyed it. I had an operation three years ago *(hysterectomy)*, which had not just a physical effect but quite a strong emotional effect on me as well and I've changed a lot since and don't really find that exercise is something that I aspire to." *(Terry, female Relapser, aged 46)*

Figure 5.2. Identity model showing two levels and two identities (After Burke, under review)
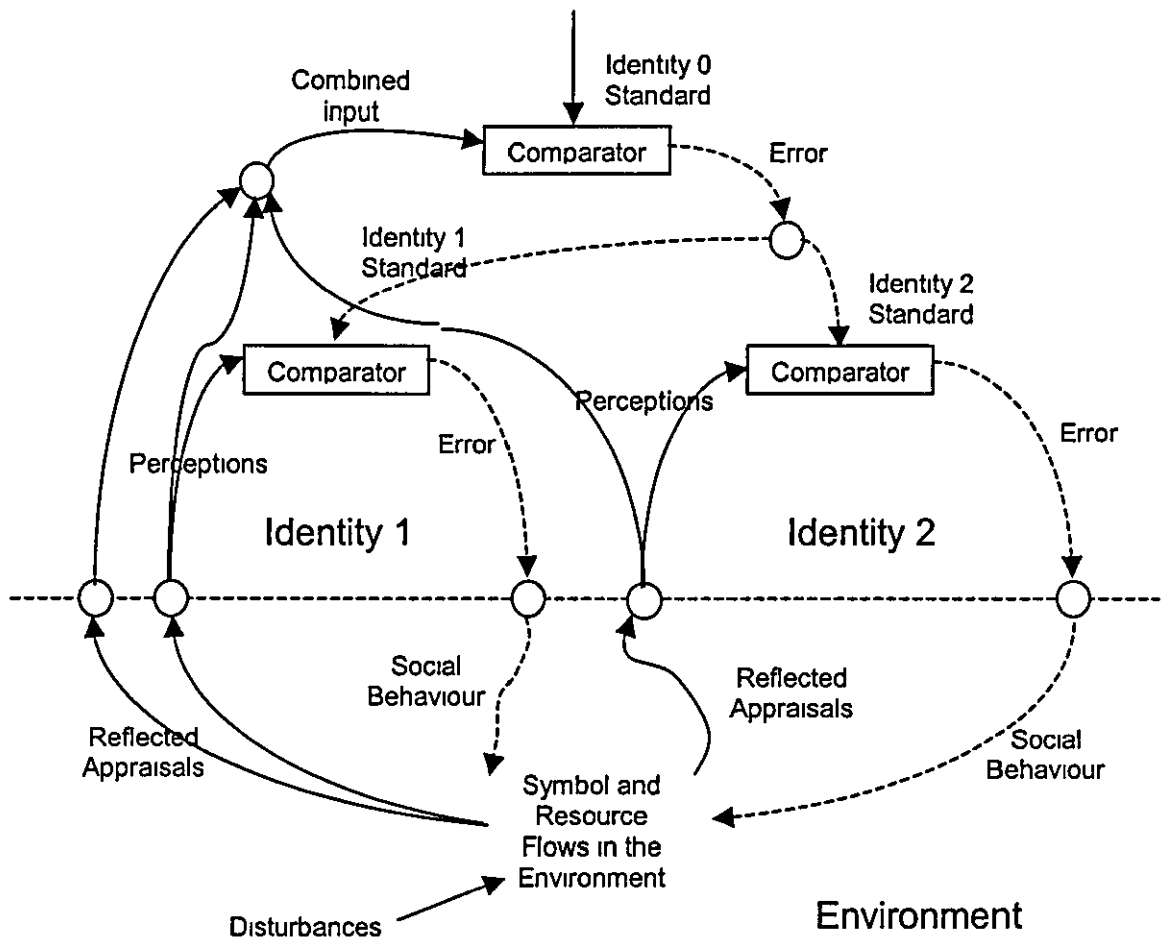
Deaux (1992) states that identity change can take two forms: a change in the category or the claim to a social identity or a change in the meanings associated with the identity. For example, an individual's exercise class may be cancelled and the members disperse, or they may fall out with other members in the group resulting in the class no longer being an important social engagement; or they may receive advice to stop exercising for health reasons or see a fellow class member become ill or injured as a result of the class. Thus, the individual may no longer see the class as a recreational pursuit but as a threat to their health.

When changing an identity, a number of processes can be identified in becoming an 'ex'. For example, an individual may stop exercising due to an operation or injury but still retain those attributes that were associated with being an exerciser. Therefore, they may seek a new identity that can capture

or contain those personal attributes, such as being a coach or taking up a different activity that does not affect the injury. Alternatively, being unable to participate in their original activity may result in the individual either abandoning those attributes that were associated with being an exerciser (becoming a Relapser or even having an Inactive identity) or to reassign those attributes to other identities, such as taking up a new, less active but equally sociable and competitive hobby (e g. darts?). How and when these processes occur requires future research.

5.1.3.2 Relating Burke's theory to the current research

Figure 5.3 expands Burke's original Identity Control Theory to include the second-order feedback loop of identity change so that behaviour can be considered both an output of the identity standard (behavioural intention) and an input where the perceptions may change the identity standard if behaviour change is unable to maintain congruence. Thus, the lower loop deals with the individual's constant evaluations of *"What I think of what I do, and my perception of what others think of what I do".*

In this loop, a comparison between the behavioural intention (comparator) and the social situation (reflected appraisals – *how others perceive me)* results in self-acceptance or rejection and thus a desire to either 'change or maintain me'. As Burke (1991) explains, "negative evaluation presents a definition of the self that is incongruent with the identity standard. In fact, a lack of congruence would exist whether the evaluation was positive or negative relative to the self-evaluation" (p.844). This would explain the finding of the current research that 'being different' resulted in an identity conflict whether 'different' meant inferior or superior to the ideal self.

Output in this lower loop relates to the Exercise Cube and is related to the environment by social interactions with others. It is here that the 'change others' strategy may occur as reference groups are reconsidered or significant others are encouraged to change their identity standards and thus, their behaviour. Feedback from both internal experience of performing the behaviour (such as finding the exercise difficult or enjoyable) and from the

external reference group (such as being told they look better or the appropriateness of their behaviour being questioned) provides the input to this model and this feedback is compared to the self to give either a congruence or incongruence to the behavioural intention ('am I doing what I want to do/should be doing?').

If a discrepancy exists between behavioural intention and actual behaviour that cannot be resolved by a change in the behaviour of the self or others, then the higher loop is affected. Behavioural intention may be reconsidered as the feedback received from the lower loop reveals that the 'actual self' (social situation) does not match the 'ideal self' (comparator). This relates to the 'normality continuum' identified in the current research, where the ideal self (based on perceptions of others, of past self and of social norms) is compared to the actual self and a score from −1 to +1 is obtained that suggests that the individual is either inferior to that ideal self, normal (ideal self = actual self) or superior to the ideal self. The higher loop, therefore, deals with the less common, possibly even subconscious, evaluations of *"who I want to be vs. who I am and who others perceive me to be"*. The result of this comparison may be that the ideal self is reviewed to be more manageable (self-acceptance) or that an intention to change the actual self (rejection of self or others - behavioural intention) means that the lower loop will be affected as it now has a new standard to maintain.

Figure 5.3. Cognitive and Behavioural Feedback loops.
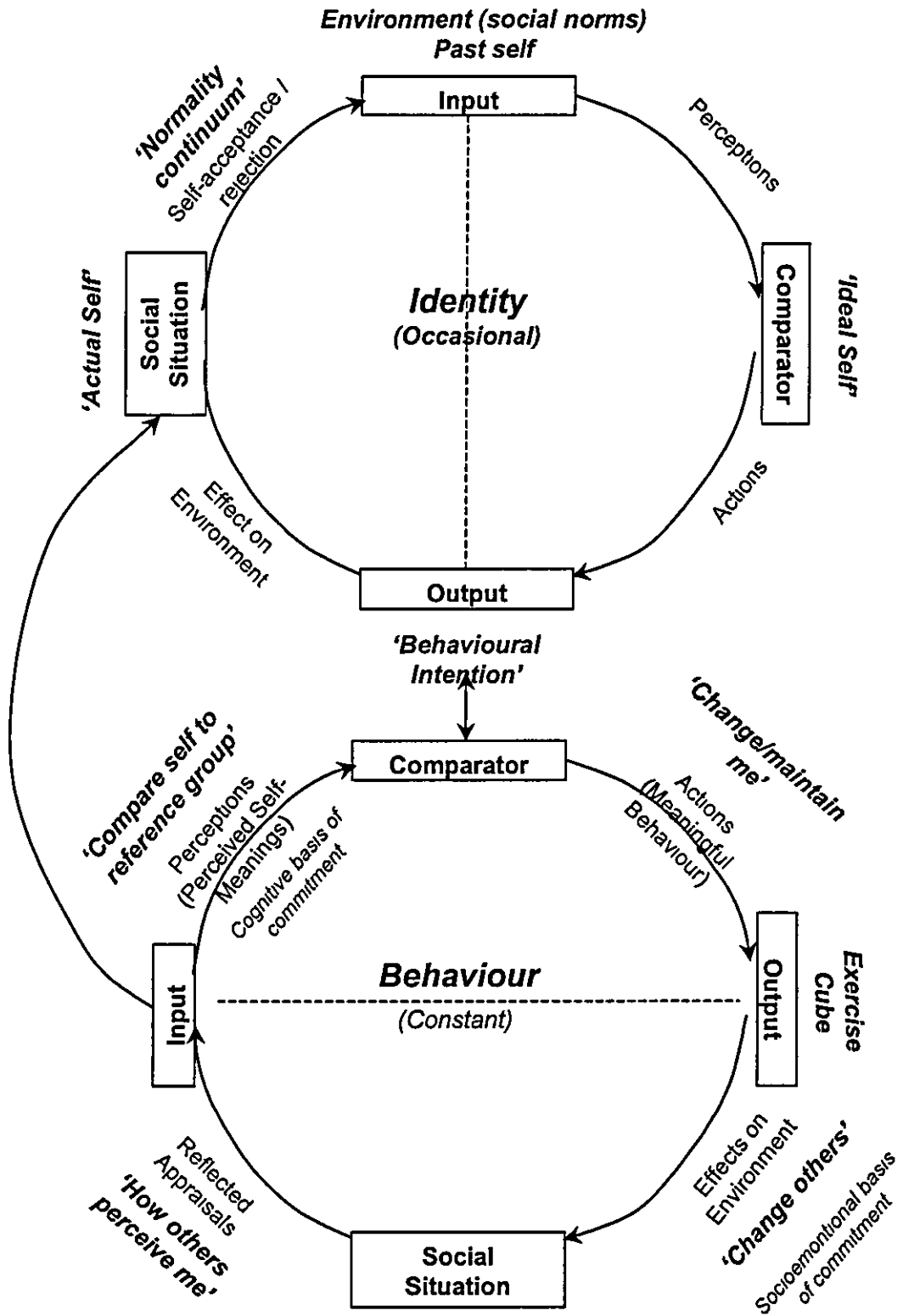
5.1.3.3. Rates of change

Burke (under review) suggests two mechanisms whereby identities change over time. The first is the slow change that occurs as the meanings in the identity standard shift to come into line with the self-relevant meanings that are perceived in the situation. This process is slow and so is unlikely to provide much change; it is the output behaviour that changes quickly in a given situation to bring perceptions into alignment with the identity standard. This accounts for more day to day changes in behaviour and standards rather than shifts in attitude and large behaviour changes that are necessary to promote exercise participation in non-exercisers. The second mechanism is also an adaptive response, but occurs where two identities that share some common dimension(s) of meaning in their standards become more like each other over time. Again, this is a slow response.

Therefore, it would appear that Burke believes identity change to be a slow process and behaviour change to be a quick-response mechanism to changes in perceptions or the situation. However, he admits that his thoughts are not well developed on this area. He points out that simulations of the model have shown there to be instabilities introduced when higher-level standards change more quickly than lower-level standards and believes the speed of change of the identity standard to be a function of our ability/inability to bring about self-verification (Burke & Reitzes, 1991) .

Burke explains that in most situations (aside from unusual ones such as brainwashing, and psychotherapy where the social environment is totally rearranged to not confirm the old identity, but to only confirm the new identity) we are able to resist disturbances that would change our selves (personal communication, 5th May, 2004). However, the current research suggested that an external 'catalyst' could provide a quick change in the identity standard that led to the identity changing from inactive to active (such as medical advice). The catalyst alone is not sufficient to promote change, it merely prompts an 'internal epiphany', whereby the individual becomes suddenly dissatisfied with themselves (rejection) and seeks to change their behaviour (their identity standard changes dramatically).

The mechanism behind this 'epiphany' warrants further investigation. What makes a person that has been obese for twenty years suddenly look in the mirror and decide enough is enough? What makes someone who has been inactive for many years decide they need to get fit and take up jogging? The triggers for these rapid changes in behaviour and even identity may be useful in encouraging other inactive individuals to change their behaviour.

5.1.3.4. Type and direction of change

The direction of change is also an issue that needs to be investigated. Identity theory states that behaviour change is driven by changes in the identity standard (Burke and Reitzes, 1991). The current research agreed with this, although development of Burke's Identity Control Theory suggested that changes in perceptions and/or behaviour can also influence the identity standard. In other words, there is a reciprocal relationship between the lower and higher-order feedback loops.

There is also the issue of behaviour change being either top-down or bottom-up. The current discussion has focussed on individuals being a product of their social norms, being influenced by significant others and their perceptions of what it is to be 'normal'. However, how do such social norms occur? It is possible that behaviour change may, in turn, affect social identities. If an increasing amount of people stop smoking and it becomes 'normal' to be a non-smoker, then subsequent changes in social norms may follow, such as no-smoking pubs and restaurants. We have already witnessed a move towards this in the UK with no-smoking public transport and shopping centres, but this has yet to occur in many other European countries where smoking is still a socially acceptable behaviour.

Burke also referred to social structure in his (Burke, 2003a) address where he explained that his Identity Control Theory is not simply a theory about the psychology of individuals, but should be viewed as a theory about the links between identity and social structure. He clarified that named categories, as identities, define individuals in terms of their positions in society, and these positions are relational in the sense that they tie individuals together. Thus,

"identity verification becomes the variable means through which the social structure is maintained as role links to role and group member links to group member" (2003, p.4). Therefore, there is an inherent link between identity and social structure, although the nature of this link varies across identities and has an influence on both the identity and the structure. Burke concluded that change can and does happen to identities as well as to the social structure built on those identities.

Thus, further work must be carried out to ascertain the mechanisms by which social norms change. At present, a group of middle-aged women playing football in the park would turn heads. Why? How can attitudes be changed so that some 50-year old women would feel completely comfortable and 'normal' going for a kick-about after work? Abrams (1992) explains that social identity is a dynamic process. Identities change and develop within the flux of social interaction. This interaction is altered by the social actions of both others and the physical environment. People shift their perception of their own and others' interests in order to align with, rather than be in conflict with others.

This is a key area in promoting physical activity to middle-aged adults. The present research found many participants were conscious of their age and felt uncomfortable exercising in front of others as they felt too old to do so. How can attitudes be altered so that it becomes normal to see older people wearing sports clothes and participating in exercise behaviour? The current solution is that many health clubs and leisure centres provide 'over 50s' and other age-specific exercise sessions. Although useful in that they provide expert tuition for the members, is this type of segregation helpful in creating a society where it is normal for all members of the population to be seen exercising?

5.1.4. Identity formation

Discussion has so far focussed on the subtle or dramatic changes in behaviour, perceptions, identity standards and even identities themselves. However, as behaviour change is the ultimate goal of exercise psychology research, a discussion of identity formation is necessary as it is

acknowledged that to some, an exercise identity may be completely alien and require a whole new set of perceptions and beliefs to be established before the behaviour can take place on a regular basis.

This section has been placed late-on in the thesis as the formation of new identities did not come from the grounded theory itself and the researcher considers that people who are so disinterested in exercise that it would require the formation of a new belief structure are probably not the most efficient or practical population to target at this stage.

The concept of identity formation was introduced by Marcia (1966) who conceptualised it in terms of two orthogonal dimensions: self-exploration and commitment, where commitment refers to the possession of a firm and stable set of convictions, values and goals, and self-exploration refers to the level of deliberate effort and self-examination one has expended in an attempt to determine these commitments. Within this paradigm, levels of commitment and personal exploration are used to operationally define four identity classifications: identity achievement, moratorium, foreclosure and diffusion. Those that have resolved an active period of self-exploration by forming personal commitments are classified as identity *achieved* (for example, those that have been through the (re)viewing myself process and have accepted themselves) In contrast, *diffuse* individuals lack firm convictions and are not inclined to engage in a process of self-exploration (for example people that have an external health locus of control). The *moratorium* category refers to individuals who also lack stable commitments, but who are currently in the process of trying to formulate them (such as people currently going through the (re)viewing myself process and are attempting change). *Foreclosed* individuals hold firm convictions, but they have prematurely gained them from their reference group without personal self-scrutiny (such as someone that attempts to change their behaviour to be in line with their peers when they are actually happy the way they are, e.g. reluctant exercisers).

The above view that social-cognitive processes influence the development of self-identity has been supported by Berzonsky and Neimeyer's (1994) study on late adolescents who concluded that "an informational approach to identity issues and self-relevant information is apt to promote an ongoing process of

self-construction and reconstruction" (p.433). However, to date, these notions of identity formation have yet to be studied using older adults.

Yoder (2000) noted that identity research often focuses almost exclusively on psychological perspectives of internal exploration and development. She proposed an addition of *barriers* to the identity formation theory that reflect external limitations imposed upon those processes. Thus, barriers (located in the socio-cultural environment and framed in terms of socio-economic circumstance, such as society and family and work environments) expand descriptions of identity status to specifically include or exclude conditions over which an individual has little or no control, but which affect their developmental options. However, Yoder fails to distinguish between 'real' and 'perceived' barriers which, as the current research has found, are crucial to the individual's perception of their situation and current self-assessment.

Thus, Marcia's concept of identity formation has been supported by the current research that found self-assessment to be a precursor for behaviour change. It also corresponds with the identity theories presented that require a constant evaluation of the identity standards. The next step is to study the development of exercise identities in different adult populations.

Donnelly and Young (1988) looked at the formation of identities in a sports setting and found the most significant deliberate act of identity construction to be modeling, that is through a variety of means such as adopting mannerisms, attitudes, dress codes, and styles of speech and behaviour that the individual perceives to be characteristic of established members of the group. They also concluded that such perceptions are usually inaccurate and frequently stereotypical, which explains the distress shown by Inactives and Relapsers when exercising for the first time as they do not yet know the correct way to dress or behave and feel unable to model the stereotypical 'exerciser' as they perceive it to be.

5.2. The Exercise Cube: Practical Implications

5.2.1. Movement through the cube

The practical implications of the Exercise Cube are exciting. By establishing where a person is on the cube, with much future work, it could be possible to ascertain that person's exercise perceptions, desires and behaviours. In turn, this will provide valuable information as interventions can be tailored to the participants. It is envisaged that the cube will be as useful for large populations as for individuals.

This thesis has established mechanisms of change but only when the participant is in the middle of a major review and moves from non-exerciser to exerciser (or vice versa). The discussion of identity theory so far has identified mechanisms for gradual change in behaviour and in identity standards. Can these provide the mechanism for those that subtly progress through the cube – for example, from a cautious to an established exerciser as they become fitter and more confident? Or from an aspiring exerciser to a delegator as they continue to talk about the benefits of exercise but go to the gym less and less? People's perceptions and desire to exercise must change with positive or negative experiences, so it is logical that their behaviour, or at least their position in the cube, will change. This warrants further investigation.

Burke (under review) explains that in general, people will avoid being in situations that require large identity changes and so will engage in strategies that act to confirm existing identities. This may explain why the non-exercisers were so resistant to changing their behaviour. These strategies include selective interaction of the persons and situations in which individuals engage themselves to confirm their identities ('hanging around with people fatter than you!') and displaying identity cues to let others know who we are and, therefore, how we should be treated (such as wearing sports clothes or club t-shirts when not training). Thus, changing identities in people who have reached an equilibrium between their identity standard and their reflected appraisals (feedback from others) is a big challenge.

Identity change has been identified by this research as a possible outcome of the (re)viewing myself process when 'who I am' does not match 'who I want to be'. This identity conflict relates to Cognitive Dissonance Theory (Festinger, 1957), which states that cognitive dissonance is the distressing mental state that occurs when individuals do things that they would not normally do, or when they have opinions that conflict with other opinions they already hold. Thus, the focus of this theory is attitude change and, like the (re)viewing myself process, when the individual experiences this dissonance they experience an unpleasant psychological tension and seek to reduce this through change mechanisms (suggested as selective exposure, post-decision reassurance and minimal justification).

A further implication of the cube in intervention design is its applicability to the Stages of Change model (Prochaska & Diclemente, 1983) which is commonly used to inform current practice. 'Indifferent' types could be classified as 'Precontemplators', 'Delegators' are likely to be 'Contemplators', whilst 'Uncertains' and 'Procrastinators' may be 'Contemplators' or 'Preparers' depending on how strong their desire to exercise is. 'Reluctant', 'Cautious' and 'Aspiring' exercisers are all likely to be in the 'Action' stage, although the former two may not have spent enough time in the 'Preparation' stage Only 'Established' exercisers are likely to have reached the 'Maintenance' stage.

The Transtheoretical model also relates well to Marcia's identity states (Marcia, 1966). For example, identity foreclosure describes individuals who have committed to an occupation or an ideology without first engaging in exploratory behaviour (Petitpas, 1978), which corresponds to findings that individuals that move to the action stage without spending sufficient time in the preparation stage are more likely to relapse than reach maintenance (J.O. Prochaska, DiClemente, & Carlo, 1995).

Recent research on the transtheoretical model has also classified people using a cluster approach combining both intention and behaviour (Godin, Lambert, Owen, Nolin, & Prud'homme, 2004). The authors' analysis resulted in a 2 x 2 matrix that consisted on (Stage 1) Unconcerned (low intention and low past behaviour), Ambivalent (slightly higher intention and some past

exercise behaviour), (Stage 2) Optimist (fairly strong intention and some past exercise behaviour and Active (strong intention, strong past behaviour). These are similar to the classification used by the Exercise Cube, although they are not as detailed and do not take 'desire to exercise' into account. However, they do provide empirical evidence for the cluster approach to the classification of exercise 'types'.

Whilst the Transtheoretical model provides a useful description of the journey taken and suggests mechanisms for movement through the stages via decisional balance, processes of change and self-efficacy, the Exercise Cube provides a more detailed description of the mechanism behind movement through the stages and with further work may provide a useful tool to more accurately plot individuals and groups according to their stage of change that also takes into account their perceptions and desires to exercise. Further work on the exercise cube should include an investigation as to how current surveys using the stages of change could be expanded to incorporate the different exercise and non-exercise 'types' and their exercise perceptions and desires.

5 2 1.1. Applied research using identity theories

One quandary is the link between attitudes and identity in determining behaviour. Biddle et al. (1987) suggested that self-identity and other cognitions, such as attitude or preferences, may not always be consistent because the following line of thought is conceivable: "I think I would enjoy doing A, and I think I should do A (or B), but I am the type of person more oriented to doing C." Sparks and Shepherd (1992) questioned these findings, believing it unlikely that there is a causal link from a person's self-identity to behavioural intentions which is independent of the effect of attitude. They proposed that in the above example of the individual expecting to do 'C', the individual would be favourably disposed to doing C despite any possible reservations and despite the lack of enjoyment involved in doing C.

However, the lack of enjoyment in performing 'C' begs the question of how likely it is that a person would repeatedly perform a behaviour that they did not enjoy. If the above example involved a person thinking 'I think I would

enjoy playing tennis and I think I should take more exercise but I am the sort of person that is more likely to stay home and watch TV', the reasoning behind this thought process must be questioned. Why does this person prefer to stay at home? Are they afraid to step out of their comfort zone? Unwilling to risk embarrassment, being out of breath etc? Or perhaps they just 'can't be bothered' and are choosing the activity that they believe they would enjoy more.

In the only study of its kind, Theodorakis (1994) examined exercise behaviour prediction in terms of the Theory of Planned Behaviour (TPB) (Azjen, 1991). What made his study unique was the addition of the variables attitude-strength and role identity to the TPB. He found that the TPB was more successful in predicting exercise behaviour when the two other variables were added despite using a primitive measure of role-identity and confusing what may now be seen as social identities with role identities. The study also found role identity to have a more powerful predictive capacity when the time interval was increased and concluded that role conflicts, such as mother and spouse or exercise participant were evident. This may confirm Stets and Burke's (2003) suspicions that person identities may influence role and group identities when they are first taken on, but that role or group identities take over once they become established; either that or the conflict caused too much distress and the new identity was removed (i.e. the person stopped exercising).

Anderson (2001) suggests the mechanism for increased exercise identity is that once behaviours associated with a role identity, such as exerciser, have been initiated, these are then recognised and reinforced by others which clarifies and validates the person's identity as an exerciser. The behaviour will then become important to the individual's concept of self. If, through continued involvement with exercise and social interaction reinforcing the behaviour, the role identity of exerciser becomes a valued aspect of the individual's concept of self and a primary salient belief, it may also become important in directing future exercise behaviour. Validation of the identity may also place pressure on the individual to continue to exercise and even reaffirm the identity through additional exercise behaviour as well as rituals

and displays of symbols associated with being an exerciser, such as wearing exercise clothes, reading appropriate magazines and owning a health club membership.

5 2.1.2. Instrumentality

Other theories that may be useful in determining movement throughout the cube may be those of goal orientation and perceived instrumentality. Simons et al. (2000) combined both because:

> "both intrinsic-extrinsic motivation theorists (Deci and Ryan, 1990; Rigby et al., 1991) and goal theorists (Ames, 1992) assume that focusing on the consequences of an action results in maladaptive approaches, and hence in poor performance. Therefore, these theorists emphasised the importance of the task at hand. Nevertheless, there are reasons to think that future consequences may also play an important role." (Simons et al., 2000, p.376).

They found that being future oriented or perceiving the instrumentality of a present task for future goals or tasks (i.e. 'who I want to be') enhanced motivation, performance and persistence They described three types of instrumentality defined by combining the two dimensions of the relationship between the present task and the future goal and the kinds of conditions that regulate behaviour (internal or external):

Future goal extrinsically motivated and externally regulates present activities (E-E). For example, medical advice to lose weight and financial reward for every pound lost.

Future goal intrinsically motivated and internally regulates present activities (I-I). For example, a desire to improve oneself physically in order to achieve new things (such as completing a marathon), regulated by enjoyment of running with friends.

Future goal extrinsically motivated and internally regulated (E-I), such as a desire to win the prize money at the next company football tournament and enjoyment of the training sessions.

Simons et al. (2000) state that there is no I-E instrumentality at it is impossible to have an intrinsic goal that is regulated by external conditions. However, research on exercise behaviour change suggests that initial external rewards for exercise behaviour can, under the right conditions, result in subsequent intrinsic motivation as the participant enjoys the activity, or at least the benefits from participation. It is possible that a father could want to improve his fitness in order to be healthy for longer for his children (intrinsic) but require external rewards at first (such as praise from his family, meals out etc) in order to establish the exercise behaviour (Keefe & Blumenthal, 1980).

5.2.1.3. Locus of control

Internal and external motivations may also be influenced by the level of control a person feels they have over their situation and future goals, compared to the influence powerful others and chance have over their health outcomes. Identity theory does not discuss such perceptions of control but the current research found them to be an important component of the (re)viewing myself as a predominantly external locus of control, where participants tended to refer to health outcomes that were as a result of chance, or a behaviour that was controlled by others, particularly demanding family members, failed to change behaviour but did affect the identity standard by which that behaviour was set (who I want to be). Future research may establish the influences of these control perceptions as it is difficult to change the health behaviours of individuals that do not 'own' their own health. Encouraging people to take responsibility for their own health and to internalise exercise behaviours is a challenge that requires further investigation.

5.2.1.4. Summary

The exercise cube, although an exciting development in exercise behaviour research, is only a preliminary concept and requires much further development. The incorporation of theories on identity formation and change, on motivations for change (goals) and on individual perceptions of barriers

may contribute to the appreciation of the mechanisms behind movement along the axes of the cube. Establishing these mechanisms is crucial to understanding why people do and do not exercise and how this can be influenced.

5.2.2. Identifying positions on the cube

In order for the exercise cube to be of practical use, it will be necessary to establish a method of ascertaining where people are on the cube, in order to predict their exercise perceptions and desires, and ultimately the most effective intervention for them that will promote or confirm their exercise behaviour.

Anderson (2004), one of the few researchers in exercise psychology to incorporate identity theory, although superficially, into her work on exercise participation, has designed an Athletic Identity Questionnaire (AIQ) that differs from the Athletic Identity Measurement Scale devised by Brewer et al. (Brewer et al., 1993) as it is intended to be used for exercise behaviour and is currently being validated for such an application. This requires much more work, but could be a good place from which to start developing a questionnaire, or even a self-administered computer programme that individuals could use to plot themselves on the cube, or which practitioners could use to design interventions. The use of self-reported activity levels and the risk of day to day fluctuations in perceptions and desires and the possibility of affecting the results by the implementation of a such a tool (such as allowing people to complete it in groups where they can see each others answers and therefore may feel pressured into putting the 'right' answer) must be taken into account when designing and validating such a measure.

However, once the cube is complete and a suitable tool established to position individuals on it, it will be possible to sample large populations and ascertain exactly what the exercise behaviours, desires and perceptions are for the population as a whole, for each gender, age groups, or ethnic or social minorities. This will assist in planning interventions as it will enable practitioners to target the largest (and therefore most efficient) groups first.

5.3. Conclusions

This thesis began with a discussion of the main body of exercise behaviour change research and a call for the use of alternative research methods and an integrative approach to existing theories. As the current research subsequently confirmed the value of a qualitative approach in understanding exercise participation and found that the outcomes related to significant, but largely overlooked, behaviour change theories, it will conclude the same way.

5.3.1. Combined use of interdisciplinary theories

> "...although pitting theories against each other is a necessary part of the scientific process, it is just as important to compare similarities between theories if we are to understand their implications for research and practice. The practicality of theories lies partly in the opportunity they afford not only to do research, but plan intervention; not only to test intervention but to explain failure to cause change...in some cases, greater understanding can be gained through the joint use of theory than may be obtained through the use of one model alone." (Brawley, 1993)

The above quote came from a forward of a special issue of the Journal of Applied Sports Psychology that focussed on the application of social psychological theories to health and exercise behaviour, most notably the compatibility of theories and their joint usefulness in advancing research and practice. What is interesting to note is that this issue was published more than a decade ago and yet such an approach is only just being embraced by many health and exercise psychology researchers. Indeed, James Maddux, one of the more vocal writers on the similarities between and integration of social cognitive models at the time, has not published any further work of this type.

Sallis and Owen (Sallis & Owen, 1996) propose the use of an ecological model approach that recognises multiple levels of influence, such as interpersonal, social-environmental and physical environmental. These broader approaches, which capture the diversity of influences on physical

activity, have begun to gain popularity in the field of exercise determinants research (S. J. H. Biddle & Mutrie, 2001)

Maddux (1993) integrated several social cognitive models using the Theory of Planned Behaviour as a foundation. He pointed out that within the field of research, exercise is defined more by the reasons a person exercises (their goals), than by the topography of the behaviour. The theories that have guided research on the adoption and maintenance of health and exercise behaviour are goal-based theories concerned with the role of expected and desired consequences in people's decisions to begin and adhere to healthy behaviours.

This contrasts with identity theories that focus on identity salience and subsequent activation that are acknowledged to be influenced by the person's goals but have not tended to consider the source of these goals (Stets & Burke, 2000). Therefore, it may be possible that whilst identity theorists have been explaining behaviour from a social point of view and health psychologists from an individual cognitive point of view, both only explaining a small proportion of the variance in behaviour, an integration of all these ideas may give us a much better picture of what really influences health behaviours and what can be done to change them.

Nigg et al. (2002), writing about the aims of the Behaviour Change Consortium in the US, acknowledged that the theories commonly studied in psychological and social psychological research can be categorised as belief-attitude, competence-based theories, control-based theories and decision-making theories. The emphasis of these has been on understanding the cognitive psychology of the individual, either alone or within the context of the individual's social environment. However, as discussed, broader approaches to understanding health behaviour have emerged and are increasingly being used in health promotion and health behaviour change research such as ecological models and community models of intervention, where individual psychology makes up just one element of the broader social and environmental context in which health behaviour is determined.

5.3.2. Social Cognitive Theory and Identity Theories

Many of the major social cognitive models used in health psychology research originate from the more general social cognitive theory (Bandura, 1986). This approach to understanding human cognition, action, motivation and emotion assumes that people are capable of self-regulation and self-reflection and are active shapers of their environment rather than simply passive reactors to their environment (Maddux, 1993). At first glance, this does not fit with theories that define the self and related attitudes, beliefs and behaviours by the meanings attached to that self by themselves and others (Gecas & Burke, 1995). However, identity theories explain social behaviour in terms of the reciprocal relationship between the self and society. This term *reciprocal* is key here as both sets of theories acknowledge a two-way relationship between the individual, others and their environment.

SCT contends that behaviour is informed by each of the triadic factors of personal factors, behaviour and the environment (Bandura, 1977), thus the theory asserts that cognitive processes regulate behaviour, particularly through expectations of behavioural outcomes formed from response consequences. Burke's combined identity theory posits that when an individual identifies with the social categories that structure society, they behave according to the expectations tied to their identification and are thus acting in the context of, referring to, and reaffirming social structure (Stets & Burke, 2000). These authors recognise that the self influences society, because individual agents act by changing social arrangements to bring the self into line with the abstract identity standard.

Burke's (Burke, 2003b) three bases of identity (personal, role and social) explain behaviour according to the salience of and commitment to each identity, whilst the current study also hypothesises that the character of the individual is also influential in determining their behaviour through attitudes and self-belief. These personal cognitions could be seen to influence behaviour only after being influenced themselves by both personal factors, such as biological factors and cognitive skills and environmental factors, including social influences (role and social identities) that in turn influence expectations and beliefs.

A combination of the two approaches of social cognitive theory and identity theory will enable researchers to look at the mechanisms behind behaviour change from both personal and social perspectives in order to understand why people have the attitudes and beliefs they do, why they prioritise behaviours in certain ways, why they aspire to different goals and why those goals change over time.

What is not clear is the mechanism by which identities and cognitions are activated in the first place. Maddux (1993) describes the importance of 'situational cues', that is *'cues-to-decisions'* and *'cues-to-action'*, particularly once a behaviour is developed (or habitual), to incite action by either controlled or automatic cognitive processes. He argues that situational cues will remain a powerful indirect influence over automatic or controlled health behaviours because many environmental features and events will be cues for decision-making regarding health behaviour. He goes on to cite the examples of clear weather or the sight of one's running shoes initiating a process of decision-making over whether or not to go for a run, whilst seeing a television commercial for sports clothing or a health club may be a cue for making a decision and an intention to exercise or not. He explains that these cues do not elicit the behaviour itself, but they do elicit the social cognitive factors involved in deciding and intending. The current research also found external catalysts to drive behaviour, and ultimately identity, change.

Thus, there appear to be different processes for the different stages of behaviour and identity formation at work. Initial cues to forming an intention to exercise are likely to be external, social influences such as advice from a doctor, recommendations from friends or encouragement from family members, this may well be reinforced by societal norms and beliefs that may be communicated through media, colleagues and family, as seen in the second-order loop (identity change) in Figure 5.3. Actually performing the exercise will require internal as well as external processes such as self-efficacy, outcome beliefs and outcome values. Some of these will come from personal experience, such as being good at sport when younger, whilst others will come from external cues such as watching a friend achieve an exercise goal. Adherence to the behaviour will be influenced by identity

formation towards that behaviour and the subsequent identity having enough salience at the appropriate times to influence behaviour. For example, a person may like the idea of attending an aerobics class and may have enjoyed it the couple of times she went with her friend, however, the importance of attending that class over other activities, such as socialising with other friends or spending time with her family, will influence whether or not she adheres to the activity and develops an exercise identity. Once the behaviour is established and is part of her identity, the processes involved become less controlled. She will automatically prepare her kit on exercise days, reschedule her meal times and childcare arrangements as these have already been put into place and no longer require the same amount of effort in planning and preparation.

The stages described above are concurrent with those described by Prochaska & DiClemente (1983), i.e. contemplation, preparation, action and maintenance. However, further examination of the internal and external processes that influence behavioural decisions and identity formation is required to fully understand exercise behaviour, movement through the Exercise Cube and guide future interventions.

Recent trends of widening behaviour change research from focussing on the individual should be encouraged. Inclusion of identity research may be an effective way to do this by opening the questions from those concerning the individual to those concerning the effect of society on the individual. For example, using the current research, if social norms are changed (such as making it more socially acceptable for older people to exercise / play sport) then will people's personal behaviour and consequent personal identities change to realign with the in-group? Individuals surely have to be open to change at the personal level (i.e. they may consider themselves to be 'different', such as ill or injured). Would this lead to a conflict and possible identity change? Presumably it still depends on the perception of that social identity – i.e. what it means to be middle-aged, their attitudes, beliefs and intentions. What affects those beliefs? What makes one accept or reject being middle-aged? Society or the individual?

What is the mechanism for change? Top down or bottom up? Are different personalities more or less likely to change? For example, a committed person may be more likely to stick with something. What about changes in social identities? Are they top down, bottom up or both? For example, fashions change as people want to look like role models in the media such as models and celebrities (top down), however, on an individual level 'exercise crusaders' may propagate exercise behaviour more as they create and expand the social in-group (bottom up). Therefore, it may depend on the type of exercisers in the community. Lone exercisers may be seen as 'fanatics' or 'freaks' and will be confirmed as members of the out-group so will not influence the behaviour of others. In contrast, a group of exercisers that promote their hobby to others may encourage others to join them and thus create a desirable in-group. These social norms will surely influence individual cognitions of attitudes, self-efficacy, outcome expectations, outcome values and intentions, and thus behaviour. The use of the term 'exerciser' itself may promote specific responses in different individuals that could be either negative or positive according to their experiences, social norms and beliefs. Thus further investigation of the use of alternative terms, such as 'gym-user' or 'physically active' is necessary to establish emotive words that can potentially deter or attract an individual towards a particular behaviour and ultimately identity.

5.3.2. Conclusions

This thesis aimed to gain a greater understanding of what processes involve middle-aged adults (non)participation in exercise using exploratory qualitative methods. This was achieved by the development of the (re)viewing myself process that presented the concepts of self-assessment and identity conflict and resolution that explained exercise (non)participation in terms of the resulting self-acceptance or rejection from the difference between 'who I am' and 'who I want to be'. In accordance with an underlying theme of this thesis, to promote the integration of interdisciplinary models, the (re)viewing myself process was related to existing theories on identity conflict and change and

subsequent theories on the relationship between identity change and behaviour change have been discussed.

The outcome of the (re)viewing myself process was the Exercise Cube, that categorises individuals as to their exercise perceptions, desires and behaviours and therefore provides an initial concept for a useful practical tool to aid in future exercise behaviour change research as each axis on the cube represents a continuum and, thus, a different set of barriers, motivators and attitudes that require different interventions if movement across the cube (to a more active identity) is to be achieved.

However, the Exercise Cube is still largely theoretical and requires much further work before it will be a useful tool for use in commercial applications, such as health club member retention schemes or in a health promotion setting informing intervention design. A further aim of this thesis is to re-open the call for an integrated approach to exercise psychology research in order to develop a framework, such as the cube, that will allow for significant changes in exercise participation to be accomplished.

5.4. Ethnocomment: Acceptance of self and by others

The final stretch of my PhD journey involved writing up my work into a comprehensible document. I had flirted with formal drafts along the way but until I fully understood my data and the implications of my findings, it was difficult to communicate my ideas effectively, probably because I didn't understand them myself. This homeward leg proved to be an arduous mix of drudgery and exhilaration. One step forward, two back, an almighty leap and a pause to catch my breath as chapter drafts were written and re-written, references updated and arguments clarified.

5.4.1. Reflections of the journey

However, one obstacle remained before the finish line. The final chapter, the one that explains what it all means. I had to reflect once more as to why I started this journey, and more importantly, where I, or others, may go from here. Once again I returned to the literature and back to Burke's ideas on identity. It was during this time that I began having long enthusiastic debates with a fellow student (Jeremy Cross) whose quantitative research on student athletes had also led him to the identity literature. Although my final chapter was the most challenging to write, it was also the most fun. I spent many a happy hour theorising, debating and creating the final diagrams that explain our ideas. I have to credit Jeremy as co-creator of some of the ideas presented in chapter five. In effect, he gave me a leg-up over that last obstacle.

5.4.2. Anticipation of the next journey

Racing towards the end of my long journey inevitably led me to start thinking about my future. The last year had been dominated by thoughts of finishing this journey and completing my PhD, but now the end was in sight I approached it with mixed feelings. Relief and elation at the prospect of

submission, excitement about all the papers I would write and the conference papers I was presenting. But I also felt fear. Where next? If life is a journey, not a destination, then what would I do next? A new journey awaited but I had yet to decide when and where it would take me. My journey had opened up many doors to me, led me to discover new paths and gateways that may lead to undiscovered paths. Now *I* had to reflect on who I had become and who I wanted to be.

5.4.3. Conclusion: Discovering myself through the discovery of grounded theory

This thesis is the outcome of my PhD adventure. A journey that saw me grow as a person and as a researcher. Being able to 'own' the project and make vital decisions and mistakes is probably the biggest reason that I was able to complete (along with a stubborn ambition to submit before I turned 30!). I maintained my passion for the project throughout even the blackest times and believe myself to be a better researcher as a result of my blunders, my triumphs, the chance occurrences and the helps and hindrances I encountered along the way.

Strauss and Corbin (1992) write about the 'discovery' of Grounded Theory from the data. I would argue that there is another process of 'discovery' present in a Grounded Theory adventure such as mine, maybe in every research quest. It is here that I realise that whilst I have been asking questions of my participants I have been finding answers about myself; what kind of researcher I want to be, what turns me on in the area of exercise psychology, even where my future career interests may lie.

And so my next journey begins...

References

Abbott, C. L., Weinmann, C. A., Bailey, C. I., & Laguna, P. L. (1999). The relationship between sport salience and choice behavior in division I collegiate baseball players. *International Journal of Sport Psychology, 30*, 369-380.

Abrams, D. (1992). Processes of social identification. In G. M. Breakwell (Ed.), *Social Psychology of Identity and the Self Concept* (pp. 57-100). London: Surrey University Press.

Abramson, J. L., & Vaccarino, V. (2002). Relationship between physical activity and inflammation among apparently healthy middle-aged and older US adults. *Archives of Internal Medicine, 162*(11), 1286-1292.

Adams, K. J., Swank, A.M., Berning, J.M., Sevene-Adams, P.G , Barnard, K.L. & Shimp-Bowerman, J. (2001). Progressive strength training in sedentary, older African American women. *Medicine and Science in Sports & Exercise, 33*(9), 1567-1576.

Ainsworth, B. E., Montoye, H. J., & Leon, A. S. (1994). Methods of assessing physical activity during leisure and work. In C. Bouchard, R. J. Shephard & T. Stephens (Eds.), *Physical Activity, Fitness and Health* (2nd ed., pp. 145-159). Champaign, IL: Human Kinetics.

Anderson, D. F. (2004). Athletic identity and its relation to exercise behavior: Scale development and initial validation. *Journal of Sport and Exercise Psychology, 26*, 39-56.

Anderson, D. F., & Cychosz, C. M. (1994). Development of an exercise identity scale. *Perceptual and Motor Skills, 78*, 747-751.

Anderson, D. F., & Cychosz, C. M. (1995). Exploration of the relationship between exercise behavior and exercise identity. *Journal of Sport Behavior, 18*(2), 159-166.

Anderson, D. F., Cychosz, C. M., & Franke, W. D. (2001). Preliminary exercise identity scale (EIS) norms for three adult samples. *Journal of Sport Behavior, 24*(1), 1-9.

Armstrong, N., & Welsman, J. (1997). *Young People and Physical Activity.* Oxford: University Press.

Atienza, A. A. (2001). Home-based physical activity programs for middle-aged and older adults: Summary of empirical research. *Journal of Aging and Physical Activity., 9:*, S38-S58, Suppl. S.

Azjen, I. (1988). *Attitudes, Personality and Behaviour.* Milton Keynes: Open University Press.

Azjen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179-211.

Azjen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behaviour.* Englewood Cliffs, N.J.: Prentice-Hall.

205

Babbie, E. (1989). *The Practice of Social Research* (2nd ed.). Belmont, California: Wadsworth.

Bandura, A. (1977). *Social Learning Theory.* Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1986). *Social Foundations of Thoughts and Actions: A Social Cognitive Theory.* Englewood Cliffs, NJ: Prentice-Hall.

Becker, M. H., Haefner, D. P., Kasl, S. V., Kirscht, J. P., Maiman, L. A., & Rosenstock, I. M. (1977). Selected psychosocial models and correlates of individual health-related behaviours. *Medical Care, 15*(supplement), 27-46.

Beres, D. (1981). Self identity and narcissism. *Psychoanalysis Quarterly, 50*(4), 515-534.

Bernstein, M. S., Costanza, M. C., & Morabia, A. (2004). Association of physical activity levels with overweight and obesity in a population-based sample of adults. *Preventive Medicine, 38*(1), 94-104.

Berzonsky, M. D., & Neimeyer, G. J. (1994). Ego identity status and identity processing orientation: the moderating role of commitment. *Journal of Research in Personality., 28*, 425-435.

Biddle, B. J., Bank, B. J., & Slavings, R. L. (1987). Norms preferences, identities and retention decisions. *Social Psychology Quarterly, 50*(4), 322-337.

Biddle, S. J. H. (2000). Psychology of sport and exercise - present and future. *Psychology of Sport and Exercise, 1*, 1-5.

Biddle, S. J. H., Markland, D., Gilbourne, D , Chatzisarantis, N., & Sparkes, A. C. (2001). Research methods in sport and exercise psychology: quantitative and qualitative issues. *Journal of Sports Sciences., 19*, 777-809.

Biddle, S. J. H., & Mutrie, N. (2001). *Psychology of physical activity: Determinants, well-being and interventions.* London: Routledge.

Blumer, H. (1969). *Symbolic Interactionism.* Englewood Cliffs, NJ: Prentice Hall.

Bouchard, C., Shephard, R., Stephens, T., Sutton, J. R., & McPherson, B. (Eds.). (1990). *Exercise, Fitness and Health: A consensus of current knowledge.* Illinois: Human Kinetics.

Brawley, L. R. (1993). Introduction to the special issue: Application of social psychological theories to health and exercise behavior. *Journal of Applied Sport Psychology, 5*, 95-98.

Brawley, L. R., Rejeski, W. J., & King, A. C. (2003). Promoting physical activity for older adults: The challenges for changing behavior. *Americal Journal of Preventive Medicine, 25*(3Sii), 172-183.

Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or achilles heel? *International Journal of Sport Psychology, 24*, 237-254.

British Psychological Society. (2000). *Code of conduct, ethical principles and guidelines*. Retrieved 22nd May, 2004, from www bps org.uk/documents/code pdf

British Psychological Society. (2004). Draft minutes of the 2004 Annual General Meeting of the British Psychological Society. *The Psychologist, 17*, 411.

Brown, J. (1999). Barriers to physical activity in people at risk of coronary heart disease. *British Journal of Nursing, 8*(8), 517-523.

Bryman, A. (1988). *Quantity and Quality in Social Research*. London: Unwin Hyman.

Buckworth, J. (2000). Exercise determinants and interventions. *International Journal of Sport Psychology, 31*(3), 305-320.

Bunyard, L. B., Katzel, L. I., Busby-Whitehead, M. J., Wu, Z., & Goldberg, A. P. (1998). Energy requirements of middle-aged men are modifiable by physical activity. *American Journal of Clinical Nutrition, 68*, 1136-1142.

Burke, P. J. (2003a). *Identities and social structure*. Paper presented at the Cooley-Mead Award Ceremony, Atlanta, GA.

Burke, P. J. (2003b). Relationships among multiple identities. In P. J. Burke, T. J. Owens, R. Serpe & P. A. Thoits (Eds.), *Advances in Identity Theory and Research* (pp. 195-216). New York: Kluwer-Plenum.

Burke, P. J. (under review). Identity change. *available:* http://wat1203 ucr edu/Papers/03c pdf.

Burke, P. J., & Cast, A. D. (1997). Stability and change in the gender identities of newly married couples. *Social Psychology Quarterly, 60*, 277-290.

Burke, P. J., Owens, T. J., Serpe, R., & Thoits, P. A. (Eds.). (2003). *Advances in Identity Theory and Research*. New York: Kluwer-Plenum.

Burke, P. J., & Reitzes, D. C. (1991). An identity theory approach to commitment. *Social Psychology Quarterly, 54*(3), 239-251.

Burke, P. J., & Stets, J. E. (1999). Trust and commitment through self-verification. *Social Psychology Quarterly, 54*, 239-251.

Callero, P. L. (1985). Role-identity salience. *Social Psychology Quarterly, 48*, 203-214.

Calnan, M. (1989). Control over health and patterns of health-related behaviour. *Social Science & Medicine, 29*(2), 131-136.

Campbell, P. G., MacAuley, D., McCrum, E., & Evans, A. (2001). Age differences in the motivating factors for exercise. *Journal of Sport and Exercise Psychology, 23*, 191-199.

Cardinal, B. J., & Cardinal, M. K. (1997). Changes in exercise behavior and exercise identity associated with a 14-week aerobic exercise class. *Journal of Sport Behavior, 20*(4), 377-386.

Carpenter, G. (1992). Adult perceptions of leisure: Life experiences and life structure. *Society and Leisure, 15*(2), 169-185.

Carpenter, G. (1994). Leisure and health during middle adulthood: A case study. In D. M. Compton & S. E. Iso-Ahola (Eds.), *Leisure and mental health* (pp. 98-111). Park City, UT: Family Development Resources.

Carpenter, G. (1997). A longitudinal investigation of mid-life men who hold leisure in higher regard than work. *Society and Leisure, 20*, 189-211.

Cash, J. I., & Lawrence, P. R. (1989). *The Information Systems Research Challenge: Qualitative Research Methods*. Boston, MA: Harvard Business School Research Colloquium.

Caspersen, C. J. (1989). Physical activity epidemiology: concepts, methods, and applications to exercise science. *Exercise and Sport Sciences Reviews, 17*, 423-473.

Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise and physical fitness: Definitions and distinctions for health-related research. *Public Health Report, 100*, 126-131.

Chao, D., Foy, C. G., & Farmer, D. (2000). Exercise adherence among older adults: challenges and strategies. *Controlled Clinical Trials, 21*, 212S-217S.

Charmaz, K. (1990). 'Discovering' chronic illness: using grounded theory. *Social Science and Medicine, 30*, 1161-1172.

Charmaz, K. (1995). Grounded Theory. In J. A. Smith, R. Harre & L. V. Langenhove (Eds.), *Rethinking methods in psychology* (pp. 27-49). London: Sage.

Charmaz, K. (2000). Grounded theory: Objectivist and Constructivist methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 509-536). London: Sage.

Chogahara, M , O'Brien Cousins, S., & Wankel, M. (1998). Social influences on physical activity in older adults: A review. *Journal of Aging and Physical Activity, 6*(1), 1-17.

Conn, V. S., Burks, K. J., Pomeroy, S. H., Ulbrich, S. L., & Cochran, J. E. (2003). Older women and exercise: explanatory concepts. *Women's Health Issues, 13*, 158-166.

Conn, V. S., Minor, M. A , Burks, K. J., Rantz, M. J., & Pomeroy, S. H. (2003). Integrative review of physical activity intervention research with aging adults. *Journal of American Geriatric Society, 51*(8), 1159-1168.

Cox, K. L., Burke, V., Morton, A. R., Gillam, H. F., Beilin, L. J., & Puddey, I. B. (2001). Long-term effects of exercise on blood pressure and lipids in healthy women aged 40-65 years: The Sedentary Women Exercise Adherence Trial (SWEAT). *Journal of Hypertension, 19*, 1733-1743.

De Bourdeaudhuij, I., & Sallis, J. (2002). Relative contribution of psychosocial variables to the explanation of physical activity in three population-based adult samples. *Preventive Medicine, 34*, 279-288.

Deaux, K. (1992). Personalising identity and socializing. In G. M. Breakwell (Ed.), *Social Psychology of Identity and the Self Concept* (pp. 9-34). London: Surrey University Press.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior.* New York: Plenum.

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 1-17). London: Sage.

Denzin, N. K., & Lincoln, Y. S. (1997). Introduction: Entering the field of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Strategies of Qualitative Enquiry* (pp. 1-34). London: Sage.

Department of Health. (1997). *Health Survey for England*, from www doh gov uk/stats.

Dishman, R. K. (1991). Increasing and maintaining exercise and physical activity. *Behavioural Therapy, 22,* 345-378.

Dishman, R. K., Sallis, J. F., & Orenstein, D. (1985). The determinants of physical activity and exercise. *Public Health Reports, 100,* 158-171.

Donnelly, P., & Young, K. (1988). The construction and confirmation of identity in sport subcultures. *Sociology of Sport Journal, 5,* 223-240.

Dunn, A. L., Marcus, B. H., Kampert, J. B., Garcia, M. E., Kohl, H. W., & Blair, S. N. (1999). Comparison of lifestyle and structured interventions to increase physical activity and cardiorespiratory fitness: a randomized trial. *Journal of the American Medical Association, 34,* 281-327.

Dzewaltowski, D. A. (1994). Physical activity determinants: a social cognitive approach. *Medicine and Science in Sports and Exercise, 26*(11), 1395-1397.

Edwards, D., & Potter, J. (1992). *Discursive Psychology.* London: Sage.

Epstein, L. H. (1998). Integrating theoretical approaches to promote physical activity. *American Journal of Preventive Medicine, 15*(4), 257-265.

Epstein, L. H., & Roemmich, J. N. (2001). Reducing sedentary behavior: role in modifying physical activity. *Exercise and Sport Sciences Reviews, 2,* 103-108.

Ericsson, K. A., & Simon, H. A. (1980). Verbal reports as data. *Psychological Review, 87,* 215-251.

Eyler, A. A , Brownson, R.C., Donatelle, R.J., King, A.C., Brown, D. & Sallis, J.F. (1999). Physical activity social support and middle- and older-aged minority women: results from a US survey. *Social Science & Medicine, 49,* 781-789.

Festinger, L. (1957). *A theory of cognitive dissonance.* Stanford, California: Stanford University.

Fitzgerald, B., & Howcroft, D. (1998). Towards dissolution of the IS research debate: From polarisation to polarity. *Journal of Information Technology, 13*(4), 313-326.

Flick, U. (2002). *An Introduction to Qualitative Research* (2nd ed.). London: Sage.

Fox, K. R. (2000). The effects of exercise on self-perceptions and self-esteem. In S. J. H. Biddle, K. R. Fox & S. H. Boutcher (Eds.), *Physical Activity and Psychological Well-Being* (pp. 88-117). London: Routledge.

Frank, A. W. (1996). Reconciliatory alchemy: Bodies, narratives and power. *Body and Society, 2*(3), 53-71.

Frankish, C. J., Milligan, C. D., & Reid, C. (1998). A review of relationships between active living and determinants of health. *Social Science & Medicine, 47*(3), 287-301.

Fukagawa, N. K., Bandini, L. G., & Young, J. B. (1990). Effect of age on body composition and resting metabolic rate. *American Journal of Physiology, 259*, E233-238.

Gauvin, L. (1990). An experiential perspective on the motivational features of exercise and lifestyle. *Canadian Journal of Sports Science., 15*(1), 51-58.

Gecas, V., & Burke, P. J. (1995). Self and identity. In K. Cook, G. A. Fine & J. S. House (Eds.), *Sociological perspectives on social psychology* (pp. 41-67). Boston: Allyn and Bacon.

Gergen, K. J. (1985). The social constructionist movement in modern psychology. *American Psychologist, 40*, 266-275.

Glaser, B. (2002). Constructivist Grounded Theory? *Forum: Qualitative Social Research, 3*(3), http://www qualitative-research net/fqs/.

Glaser, B., & Strauss, A. (1967). *Discovery of Grounded Theory.* Chicago: Aldine.

Glass, J. C., & Knott, E. S. (1984). Middle age: A time for thinking about being old. *Journal of Extension, 22*(1).

Glesne, C., & Peshkin, A. (1992). *Becoming Qualitative Researchers. An Introduction.* White Plains: NY: Longman.

Godin, G., Lambert, L., Owen, N., Nolin, B., & Prud'homme, D. (2004). Stages of motivational readiness for physical activity: A comparison of different algorithms of classification. *British Journal of Health Psychology, 9*, 253-267.

Good, A. J., Brewer, B. W., Petitpas, A. J., Van Raalte, J. L., & Mahar, M. T. (1993). Identity foreclosure, athletic identity and college sport participation. *The Academic Athletic Journal, 8*, 1-12.

Hammersley, M. (1992). *What's Wrong With Ethnography? Methodological Exploration.* London: Routledge.

Hardcastle, S., & Taylor, A. H. (2001). Looking for more than weight loss and fitness gain: Psychosocial dimensions among older women in a primary-care exercise-referral program. *Journal of Aging and Physical Activity, 9*, 313-328.

Harre, R., & Secord, P. F. (1972). *The Explanation of Social Behaviour.* Oxford: Blackwell.

Hartman-Stein, P. E., & Potkanowicz, E. S. (2003). Behavioral determinants of healthy aging: Good news for the baby boomer generation. *Online Journal of Issues in Nursing, 8*(2), Manuscript 5.

Hayes, N. (1997). Introduction: Qualitative research and research in psychology. In N. Hayes (Ed.), *Doing Qualitative Analysis in Psychology* (pp. 1-16). East Sussex, UK: Psychology Press.

Henwood, K. (1996). Qualitative inquiry: perspectives, methods and psychology. In J. T. E. Richardson (Ed.), *Handbook of Qualitative Research Methods* (pp. 25-42). Leicester: BPS Books.

Henwood, K., & Pidgeon, N. (1992). Qualitative research and psychological theorising. *British Journal of Psychology, 83*, 97-111.

Henwood, K., & Pidgeon, N. (2003). Grounded theory in psychological research. In P. E. Camic, J. E. Rhodes & L. Yardley (Eds.), *Qualitative Research in Psychology* (pp 131-156). Washington: APA Press.

Hoelter, J. W. (1985). The structure of self-conception: Conceptualization and measurement. *Journal of Personality and Social Psychology, 49*, 1392-1407.

Hubbard, R., & Armstrong, J. S. (1997). Publication bias against null results. *Psychological Reports, 80*, 337-338.

Izquierdo, M., Hakkinen, M., Anton, A., Garrues, M., Ibanez, J., Ruesta, M., et al. (2001). Maximal strength and power, endurance performance, and serum hormones in middle-aged and elderly men. *Medicine and Science in Sports & Exercise, 33*(9), 1577-1587.

James, W. (1890). *Principles of Psychology.* New York: Holt, Rinehart and Winston.

Janz, N. K., & Becker, M. H. (1984). The Health Belief Model: A decade later. *Health Education Quarterly, 11*(1), 1-47.

Jaques, E. (1965). Death and the mid-life crisis. *International Journal of Psychoanalysis, 46*, 502-514.

Jones, S. (1988). Depth interviewing. In R. Walker (Ed.), *Applied Qualitative Research* (pp. 45-55). Vermont: Gower.

Kavanagh, D. (1994). Hunt versus Anderson: Round 16. *European Journal of Marketing, 28*(3), 26-41.

Keefe, F. J., & Blumenthal, J. A. (1980). The life fitness program: a behavioral approach to making exercise a habit. *Journal of Therapy and Experimental Psychiatry, 11*, 31-34.

Kendzierski, D. (1988). Self-schemata and exercise. *Basic and Applied Social Psychology, 9*, 45-49.

Kerlinger, F. (1973). *Foundations of Behavioral Research.* New York: Holt, Rinehart & Winston.

Kidder, L. H., & Fine, M. (1987). Qualitative and quantitative methods: When stories converge. In M. M. Mark & L. Shotland (Eds.), *New Directions in Program Evaluation* (pp. 35). San Francisco, CA: Jossey-Bass.

King, A. C. (1997). Intervention strategies and determinants of physical activity and exercise behavior in adult and older men and women. In A. P. Simpoulos & K. N. Pavlou (Eds.), *Nutrition and Fitness: Metabolic and Behavioral Aspects in Health and Disease* (Vol. 82, pp. 148 - 158). Basel, Karger: World Review of Nutrition and Dietetics.

King, A. C. (2001). Interventions to promote physical activity in older adults. *Gerontological Annals of Biological Science and Medical Science, 56*, 36-46.

King, A. C., Barr Taylor, C., & Haskell, W. L. (1993). Effects of differing intensities and formats of 12 months exercise training on psychological outcomes in older adults. *Health Psychology, 12*(4), 292-300.

King, A. C., Barr Taylor, C., Haskell, W. L., & Debusk, R. F. (1988). Strategies for increasing early adherence to and long-term maintenance of home-based exercise training in healthy middle-aged men and women. *American Journal of Cardiology, 61*, 628-632.

King, A. C., Blair, S. N., Bild, D. E., Dishman, R. K., Dubbert, P. M., Marcus, B. H., et al. (1992). Determinants of physical activity and interventions in adults. *Medicine and Science in Sports and Exercise., 24*(6, Supplement.), S221-S236.

King, A. C., & Brassington, G. S. (2002). Enhancing physical and psychological functioning in older family caregivers: the role of regular physical activity. *Annals of Behavioral Medicine, 19*, 91-100.

King, A. C., Castro, C., Wilcox, S., Eyler, A. A., Sallis, J. F., & Brownson, R. C. (2000). Personal and environmental factors associated with physical inactivity among different racial-ethnic groups of U.S. middle-aged and older-aged women. *Health Psychology, 19*(4), 354-364.

King, A. C., Haskell, W. L., Young, D. R., Oka, R. K., & Stefanick, M. L. (1995). Long-term effects of varying intensities and formats of physical activity on participation rates, fitness, and lipoproteins in men and women aged 50-65 years. *Circulation, 91*, 2596-2604.

Klein, A. (1993). *Little Big Men.* Albany, NY: SUNY Press.

Knox, A. B. (1977). *Adult Development and Learning.* San Francisco: Jossey-Bass.

Kobayashi, Y., Hosoi, T., Takeuchi, T., & Aoki, S. (2001). Benefits of a convenient, self-regulated 6-month walking program in sedentary, middle-aged women. *Japanese Journal of Physical Fitness and Sports Medicine, 50*(3), 313-323.

Krippendorf, K. (1980). *Content Analysis: An Introduction to its Methodology.* London: Sage.

Krukoff, C. (2000, January 25th). The graying of the health club. *The Washington Post.*

LeCompte, M., & Goetz, J. (1982). Problems of reliability and validity in ethnographic research. *Review of Educational Research, 52*(1), 31-60.

Lee, A. (1991). Integrating positivist and interpretevist approaches to organizational research. *Organizational Science, 2*(4), 342-365.

Lee, C. (1993). Attitudes, knowledge and stages of change: A survey of exercise patterns in older Australian women. *Health Psychology, 12*(6), 476-480.

Lee, J. Y., Jensen, B. E., Oberman, A., Fletcher, B. J., & Raczynski, J. M. (1996). Adherence in the training levels comparison trial. *Medicine & Science in Sports and Exercise, 31*(7), 1060-1064.

Levinson, D. J. (1986). A concept of adult development. *American Psychologist, 41*, 3-13.

Lincoln, Y. S., & Guba, E. (1985). *Naturalistic Enquiry.* Beverly Hills, CA: Sage.

Lindstrom, M., Isacsson, S. O., & Merlo, J. (2003). Increasing prevalence of overweight, obesity and physical inactivity: two population-based studies 1986 and 1994. *European Journal of Public Health, 13*(4), 306-312.

Maddux, J. E. (1993). Social cognitive models of health and exercise behavior: An introduction and review of conceptual issues. *Journal of Applied Sport Psychology, 5*, 116-140.

Madriz, E. (2000). Focus groups in feminist research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 835-850). London: Sage.

Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology, 3*, 551-558.

Marks, S. R. (1977) Multiple roles and role strain: some notes on human energy, time and commitment. *American Sociological Review, 42*, 921-936.

Martin, K. A., Leary, M. R., & Rejeski, W. J. (2000). Self-presentational concerns in older adults: implications for health and well-being. *Basic and Applied Social Psychology, 22*(3), 169-179.

Martin, K. A., & Sinden, A. R. (2001). Who will stay and who will go? A review of older adults' adherence to randomized controlled trials of exercise. *Journal of Aging and Physical Activity, 9*(2), 91-114.

Maycut, P., & Morehouse, R. (1994). *Beginning Qualitative Research.* London: Falmer Press.

McAuley, E., Bane, S. M., & Mihalko, S. L. (1995). Exercise in Middle-aged adults: Self-efficacy and self-presentational outcomes. *Preventative Medicine, 24,* 319-328.

McAuley, E., & Blissmer, B. (2000). Self-efficacy determinants and consequences of physical activity. *Exercise and Sport Sciences Reviews,* 85-88.

McAuley, E., Jerome, G. J., Marquez, D. X., Elavsky, S., & Blissmer, B. (2003). Exercise self-efficacy in older adults: social, affective, and behavioral influences. *Annals of Behavioral Medicine, 25*(1), 1-7.

McAuley, E., & Rudolph, D. (1995). Physical activity, aging and psychological well-being. *Journal of Aging and Physical Activity, 3,* 67-96.

McCall, G. J., & Simmons, J. L. (1966). *Identities and Interactions.* New York: The Free Press.

McGuire, D. K., Levine, B. D., Williamson, J. W., Snell, P. G., Blomqvist, C. G., Saltin, B., et al. (2001). A 30-year follow-up of the Dallas Bed rest and Training Study II. Effect of age on cardiovascular adaptation to exercise training. *Circulation, 104*(12), 1358-1366.

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly, 15,* 351-377.

Miles, M., & Huberman, M. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods.* Beverly Hills, CA: Sage.

Miles, M., & Huberman, M. (1994). *Qualitative Data Analysis* (2nd ed.). London: Sage.

Miller, G., & Dingwall, R. (Eds.). (1997). *Context and Method in Qualitative Research.* London: Sage.

Modell, A. H. (1989). Object relations theory: Psychic awareness in the middle years. In J. M. Oldham & R. S. Liebert (Eds.), *The middle years: new psychoanalytic perspectives* (pp. 17-26). New Haven: Yale University Press.

Montoye, H. J., & Taylor, H. L. (1984). Measurement of physical activity in population studies: a review. *Human Biology, 56,* 195-216.

Moore, K. A., Babyak, M. A., Wood, C. E., Napolitano, M. A., Khatri, P., Craighead, W. E., et al. (1999). The association between physical activity and repression in older depressed adults. *Journal of Aging and Physical Activity, 7*(1).

Moreau, K. L., Degarmo, R., Langley, J., McMahon, C., Howley, E. T., Bassett, D. R., et al. (2001). Increasing daily walking lowers blood pressure in postmenopausal women. *Medicine and Science in Sports & Exercise, 33*(11), 1825-1831.

Morgan, D. L. (1988). *Focus Groups as Qualitative research.* London: Sage.

Morse, J. (1999). Myth 93: Reliability and validity are not relevant to qualitative enquiry. *Qualitative Health Research, 9,* 717-718.

Mullineaux, D., Barnes, C. A., & Barnes, E. F. (2001). Factors affecting the likelihood to engage in adequate physical activity to promote health. *Journal of Sports Sciences, 19,* 279-288.

National Center for Chronic Disease Prevention and Health Promotion. (1996). *Physical activity and health. A report of the surgeon general.*

Nigg, C. R., Allegrante, J. P., & Ory, M. (2002). Theory-comparison and multiple-behavior research: common themes advancing health behavior research. *Health Education Research, 17*(5), 690-697.

Nuttbrock, L., & Freudiger, P. (1991). Identity salience and motherhood: A test of Stryker's theory. *Social Psychology Quarterly, 54*(2), 146-157.

Oates, C. (2000). The use of focus groups in social science research. In D. Burton (Ed.), *Research Training for Social Scientists.* London: Sage.

O'Brien Cousins, S. (2001). Grounding theory in self-referent thinking: conceptualizing motivation for older adult physical activity. *Psychology of Sport and Exercise.*

O'Brien, S. J., & Vertinsky, P. A. (1991). Unfit survivors: exercise as a resource for aging women. *Gerontologist, 31*(3), 347-357.

Park, R. J. (1989). *Measurement of physical fitness: a historical perspective* (Office of Disease Prevention and Health Promotion Monograph Series). Washington DC: Department of Health and Human Services, Public Health Service.

Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods* (2nd ed.). London: Sage.

Perusse, L., Tremblay, A., LeBlanc, C., & Bouchard, C. (1989). Genetic and environmental influences on level of habitual physical activity and exercise participation. *American Journal of Epidemiology, 129*(5), 1012-1022.

Petersen, L., Schnohr, P., & Sorensen, T. I. (2004). Longitudinal study of the long-term relation between physical activity and obesity in adults. *International Journal of Obesity and Related Metabolic Disorders, 28*(1), 105-112.

Petitpas, A. J. (1978). Identity foreclosure: A unique challenge. *Personnel and Guidance Journal, 56,* 558-561.

Pidgeon, N. (1996). Grounded theory: theoretical background. In J. T. E. Richardson (Ed.), *Handbook of Qualitative Research methods.* Leicester: British Psychological Society.

Pidgeon, N., & Henwood, K. (1996). Grounded theory: practical implications. In J. T. E. Richardson (Ed.), *Handbook of Qualitative Research.* Leicester: British Psychological Society.

Pidgeon, N., & Henwood, K. (1997). Using grounded theory in psychological research. In N. Hayes (Ed.), *Doing Qualitative Analysis in Psychology* (pp. 245-273). Hove: Psychology Press.

Pikora, T., Giles-Corti, B., Bull, F., Jamrozik, K., & Donovan, R. (2003). Developing a framework for assessment of the environmental

determinants of walking and cycling. *Social Science & Medicine, 56,* 1693-1703.

Poehlman, E. T., Melby, C. L., & Badylak, S. F. (1991). Relation of age and physical exercise status on metabolic rate in younger and older healthy men. *Journal of Gerontology, 46,* B54-58.

Potter, J., & Wetherall, M. (1987). *Discourse and Social Psychology: Beyond Attitudes and Behaviour.* London: Sage.

Prochaska, J O., & DiClemente, C. C. (1983). Stages and processes of self-change in smoking: toward and integrative model of change. *Journal of Consulting and Clinical Psychology, 5,* 390-395.

Prochaska, J. O., DiClemente, C. C., & Carlo, C. (1995). An empirical typology of subjects within stage of change. *Addictive Behaviors, 20*(3), 299-320.

Rogers, R. W. (1983). Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. R. Cacioppo & R. E. Petty (Eds.), *Social psychology: A sourcebook* (pp. 153-176). New York: Guildford Press.

Rosenberg, S. D., Rosenberg, H. J., & Farrell, M. P. (1999). The midlife crisis revisited. In S. L. Willis & J. D. Reid (Eds.), *Life in the middle.* San Diego, CA: Academic Press.

Rotter, J. B. (1966). Generalised expectancies for internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology, 43,* 56-67.

Sallis, J. F., & Hovell, M. F. (1990). Determinants of Exercise Behavior. *Exercise and Sport Science Reviews, 18,* 307-330.

Sallis, J. F., Hovell, M. F., Hofstetter, R., Elder, J. P., Faucher, P., Spry, V. M., et al. (1990). Lifetime history of relapse from exercise. *Addictive Behaviors, 15,* 573-579.

Sallis, J. F., & Owen, N. (1996). Ecological models. In K. Glanz, F. Lewis & B. Rimer (Eds.), *Health Behavior and Health Education: Theory, Research and Practice* (pp. 403-424). San Francisco: Jossey-Bass.

Sallis, J. F., & Owen, N. (1998). *Physical activity and behavioral medicine.* London: Sage.

Satariano, W. A., & McAuley, E. (2003). Promoting physical activity among older adults. From ecology to the individual. *American Journal of Preventive Medicine, 25*(3Sıı), 184-192.

Schaie, K. W., & Willis, S. L. (2002). *Adult Development and Aging* (5th ed.). NJ: Prentice Hall.

Seale, C. (1999). *The quality of qualitative research.* London: Sage.

Seefeldt, V., Malina, R. M., & Clark, M. A. (2002). Factors affecting levels of physical activity in adults. *Sports Medicine, 32*(3), 143-168.

Seigley, L. (1998). The effects of personal and environmental factors on health behaviors of older adults. *Nursing Connections, 11*(4), 47-58.

Shangold, M. M., & Sherman, C. (1998) Exercise and menopause - A time for positive changes. *Physician and Sports Medicine, 26*(12), 45-+.

Shephard, R. J. (1995). Physical activity, health and well-being at different life stages. *Research Quarterly for Exercise and Sport, 66*(4), 298-302.

Silverman, D. (1997). The Logics of Qualitative Research. In G. Miller & R. Dingwall (Eds.), *Context and Method in Qualitative Research* (pp. 12-25). London: Sage.

Silverman, D. (2000). *Doing Qualitative Research.* London: Sage.

Simons, J. (2000). Wanting to have vs. wanting to be: The effect of perceived instrumentality on goal orientation. *British Journal of Psychology, 91*(3), 335-351.

Slenker, S. E., Price, J. H , & O'Connell, J. K. (1985). Health locus of control of joggers and nonexercisers. *Perceptual and Motor Skills, 61*(1), 323-328.

Smith, J , & Heshusius, L. (1986). Closing down the conversation: the end of the quantitative-qualitative debate among educational enquirers. *Educational Researchers, 15*, 4-12.

Smith, J. A. (1995). Semistructured interviewing and qualitative analysis. In J. A. Smith, R. Harre & L. V. Langenhove (Eds.), *Rethinking methods in psychology* (pp. 9-26). London: Sage.

Smith, J. A. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. *Psychology and Health, 11*, 261-271.

Snyder, E. E. (1985). A theoretical analysis of academic and athletic roles. *Sociology of Sport Journal, 2*, 210-217.

Sonstroem, R. J., & Morgan, W. P. (1989). Exercise and self-esteem: Rationale and model. *Medicine & Science in Sports and Exercise, 21*, 329-337.

Sorensen, M., Anderssen, S., Hjerman, I., Holme, I., & Ursin, H. (1997). Exercise and diet interventions improve perceptions of self in middle-aged adults. *Scandinavian Journal of Medicine and Science in Sports, 7*(5), 312-320.

Sparkes, A. C. (1998). Validity in qualitative inquiry and the problem of criteria: implications for sport psychology. *The Sport Psychologist, 12*, 363-386.

Sparkes, A. C. (2001). Myth 94: Qualitative health researchers will agree about validity. *Qualitative Health Research, 11*(4), 538-552.

Sparkes, A. C. (2002). *Telling Tales in Sport and Physical Activity: A Qualitative Journey.* Champaign, IL: Human Kinetics.

Sparks, P., & Shephard, R. (1992). Self-identity and the Theory of Planned Behavior: Assessing the role of identification with "Green Consumerism". *Social Psychology Quarterly, 55*(4), 388-399.

Sports Council and Health Education Authority. (1992). *Allied Dunbar National Fitness Survey: Main Findings.* London: Author.

Stead, M., Wimbush, E., Eadie, D., & Teer, P. (1997). A qualitative study of older people's perceptions of ageing and exercise: the implications for health promotion. *Health Education Journal, 56,* 3-16.

Sterling, T. D., Rosenbaum, W. L., & Weinkam, J. J. (1995). Publication decisions revisited: The effect of the outcome of statistical tests on the decision to publish and vice versa. *The American Statistician, 49,* 108-112.

Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly, 63,* 224-233.

Stets, J. E., & Burke, P. J. (2003). A sociological approach to self and identity. In J. Tangney (Ed.), *Handbook of Self and Identity* (pp. 128-152). New York: Guildford Press.

Stevens, W., Hillsdon, M., Thorogood, M., & McArdle, D. (1998). Cost-effectiveness of a primary care based physical activity intervention in 45-74 year old men and women: a randomised controlled trial. *British Journal of Sports Medicine, 32,* 236-241.

Strauss, A., & Corbin, J. (1994). Grounded theory methodology. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 271-285). Thousand Oaks, CA: Sage.

Strauss, A., & Corbin, J. (1997). Grounded theory methodology: An overview. In N. K. Denzin & Y. S. Lincoln (Eds.), *Strategies of Qualitative Enquiry* (pp. 158-183). California: Sage.

Strauss, A., & Corbin, J. (1998). *Basics of Qualitative Research (2nd Ed).* London: Sage.

Stryker, S. (1968). Identity salience and role performance. *Journal of Marriage and the Family, 4,* 558-564.

Stryker, S. (1980). *Symbolic Interactionism: A social structural version.* Menlo Park: Benjamin Cummings.

Stryker, S., & Burke, P. J. (2000). The past, present and future of an identity theory. *Social Psychology Quarterly, 65,* 224-273.

Stryker, S., & Serpe, R. (1982). Commitment, identity salience and role behavior: A theory and research example. In E. S. Knowles (Ed.), *Personality, roles and social behavior* (pp. 199-218). New York: Springer-Verlag.

Suter, E., & Marti, B. (1992). Predictors of exercise adoption and adherence of middle-aged sedentary men in a randomized controlled trial. *Clinical Journal of Sport Medicine, 2*(4), 261-267.

Tajfel, H. (1982). *Social Identity and Intergroup Relations.* Cambridge: Cambridge University Press.

Terry, D. J., Hogg, M. A., & White, K. M. (1999). The theory of planned behavior: Self-identity, social identity and group norms. *British Journal of Social Psychology, 38,* 225-244.

Theodorakis, Y. (1994). Planned behavior, attitude strength, role identity, and the prediction of exercise behavior. *The Sport Psychologist, 8*, 149-165.

Trost, S., G., Owen, N., Bauman, A., Sallis, J., & Brown, W. (2002). Correlates of adults' participation in physical activity: review and update. *Medicine & Science in Sports and Exercise, 34*(12), 1996-2001.

Tsushima, T., & Burke, P. J. (1999). Levels, agency, and control in the parent identity. *Social Psychology Quarterly, 62*, 173-189.

van der Bij, A. K., Laurant, M. G. H., & Wensing, M. (2002). Effectiveness of physical activity interventions for older adults. *American Journal of Preventive Medicine, 22*(2), 123-133.

Van Maanen, J. (1988). *Tales of the field*. Chicago: University of Chicago Press.

Vanden Auweele, Y., Rzewnicki, R., & Ven Mele, V. (1997). Reasons for not exercising and exercise intentions: A study of middle-aged sedentary adults. *Journal of Sports Sciences, 15*, 151-165.

Wallston, K. A., Wallston, B. S., & DeVellis, R. (1978). Development of the multi-dimensional health locus of control. *Health Education Monographs, 6*, 160-170.

Walsham, G. (1995). The emergence of interpretivism in IS research. *Information Systems Research, 6*(4), 376-394.

Waring, M. (1995). *Grounded theory: Young people and physical activity (Unpublished PhD thesis)*. Loughborough University, Leicestershire.

Waring, M. (2001, 13-15th September). *Grounded Theory: A framework for enquiry*. Paper presented at the British Educational Research Association Conference, Leeds University.

Whaley, D. E., & Ebbeck, V. (2002). Self-schemata and exercise identity in older adults. *Journal of Aging and Physical Activity, 10*, 245-259.

Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in qualitative research. *Qualitative Health Research, 11*(4), 522-537.

Willig, C. (2001). *Introducing Qualitative Research in Psychology*. Buckingham: Open University Press.

Wilson, P. W. F., Paffenbarger, R. S., Morris, J. N., & Havlik, R. J. (1986). Assessment methods for physical activity and physical fitness in population studies: a report of an NHLBI Workshop. *American Heart Journal, 111*, 1177-1192.

World Health Organisation. (2001). *About physical activity*, from www who/int/hpr/physactiv/index htm

Yoder, A. E. (2000). Barriers to ego identity status formation: a contextual qualification of Marcia's identity status paradigm. *Journal of Adolescence, 23*, 95-106.

Appendices

Appendix A - Informed Consent Form

Sandra Lee, who is a PhD student at Loughborough University, has requested my participation in a research study at this institution. I have been informed that the purpose of the research is to explore the exercise behaviour of 45 – 55 year olds and their beliefs and opinions about exercise in general.

My participation in this research will involve a group discussion lasting between one and two hours on all aspects of my past and current exercise behaviour and beliefs.

I understand that the results of this research may be published but that my name or identity will **not** be revealed at any time. In order to keep my records confidential, Miss Lee will store all information as numbered codes in computer files that will only be available to her or her research supervisor.

I have been informed that Miss Lee will answer any questions I have at any time concerning the research or my participation in it.

I have read the above information. The nature and demands of the project have been explained to me and I agree to participate in this research. However, I understand that I may withdraw my consent and participation at any time without objection either from Sandra Lee, Loughborough University or (Sponsor's name) Health Clubs.

Signed _____

Name _____

Date _____

Appendix B - Background Questionnaire

First name _____(please do not write your surname)

Area   _____

Age   _____

Sex   ☐ Male   ☐ Female

Height   _____   Weight _____

Do you own any exercise equipment at home?

☐ Yes   (please state)_____ ☐ No

If yes, do you use it?

☐ Often   ☐ Occasionally   ☐ Rarely   ☐ Never

Do you live or work close to a health club?

☐ Yes   ☐ No

Do you live or work close to any other exercise facility (such as swimming baths, tennis courts, running track, dance hall etc.)?

☐ Yes   ☐ No

How far would you be prepared to travel to an exercise facility?

☐ 0 – 5 miles ☐ 6 – 10 miles   ☐ 11 – 15 miles   ☐ 6 – 20 miles

☐ 21 + miles

What is the highest qualification you have?

☐ None   ☐ GCSE/Btec/NVQ1-2   ☐ A level/HND/NVQ3
☐ Degree or equivalent   ☐ Post graduate or equivalent   ☐ Other_____

Do you smoke?

☐ Yes   ☐ No

Have you ever smoked?

☐ Yes   How long ago did you stop?   _____

☐ No

How much alcohol do you consume per week?

☐ None

☐ 1 – 4 pints or 2 – 8 shots / small glasses of wine (1 – 8 units)

☐ 5 – 8 pints or 9 – 16 shots / small glasses of wine (9 - 16 units)

☐ 9 – 12 pints or 17 - 24 shots / small glasses of wine (17 - 24 units)

☐ 13 – 15 pints or 25 – 30 shots / small glasses of wine (25 – 30units)

☐ More than that

Thank you for taking the time to complete this. Please bring it to your focus group.

Appendix C – Background Questionnaire Results

	High User	Low User	Over 50s Exerciser	Relapsed	Inactive
Sex					
Male	31.0%	50.0%	4.3%	20.0%	40.7%
Female	69.0%	50.0%	95.3%	80.0%	59.3%
Age (mean)	49.7	48.9	63.9	49.5	52.9
Health Variables					
BMI (mean)	23.7	25.0	26.5	27 2	28.8
Non-smoker	97 6%	100.0%	100.0%	100.0%	100.0%
Ever smoked?	38.1%	45.5%	26.1%	13.3%	55.6%
Length of time quit	2-30 years	1-29 years	1 - 30 years	18 & 30 years	4 months - 30 years
(mean)	(17.5 years)	(29 years)	(20.4 years)	(24 years)	(5.1 years)
Alcohol intake	see graph				
Perceived diet status	see graphs				
Home exercise equipment:					
Ownership of equipment	14.3%	36.4%	30.4%	26.7%	25.9%
Use of equipment	Rarely or never	Occasionally (50%), others = rarely or never	Most = occasionally	7% - occasionally, others = rarely or never	All = rarely

		High User	Low User	Over 50s Exerciser	Relapsed	Inactive
Perceived proximity of home or work to health club	Very close	50.0%	18 2%	30.4%	66.7%	37.0%
	Fairly close	40 5%	68.2%	56 5%	33.3%	37.0%
	Not very close	9.5%	13 6%	13.0%		3 0%
	Don't know					22.2%
Perceived proximity of home or work to another exercise facility	Very close	14.3%	27.3%	34.8%	26.7%	37.0%
	Fairly close	64.3%	59.1%	47.8%	20.0%	63.0%
	Not very close	21.4%	13.6%	17.4%		53.3%
Distance prepared to travel to exercise	0-5 miles	26.2%	36.4%	43.5%	46.7%	33.3%
	6 - 10 miles	42.9%	36.4%	43.5%	13.3%	
	11 - 15 miles	7.1%	27.3%	13.0%		
	16-20 miles	9.5%				
	Not prepared to travel	14.3%			40.0%	66.7%

Mean Units of Alcohol Consumed

By Type
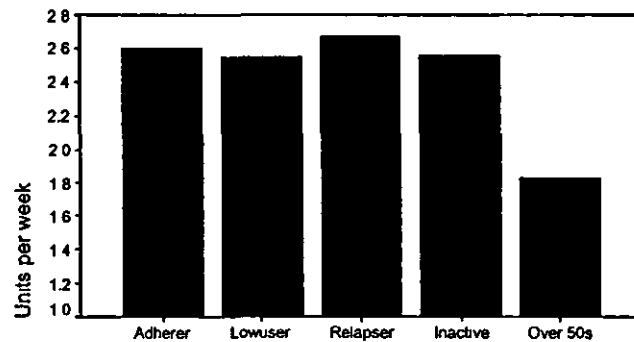
NB. Adherer = High User

Perceived diet status

SUBGROUP: 1 Adherer
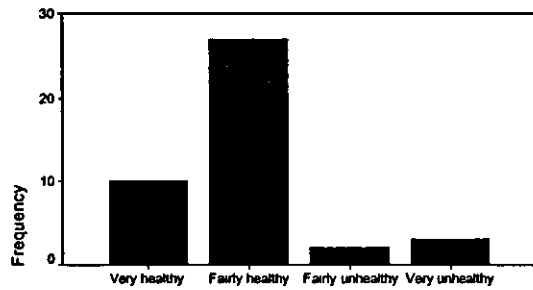
Perceived diet status

Cases weighted by DISTANCE

Perceived diet status

SUBGROUP 2 Lowuser

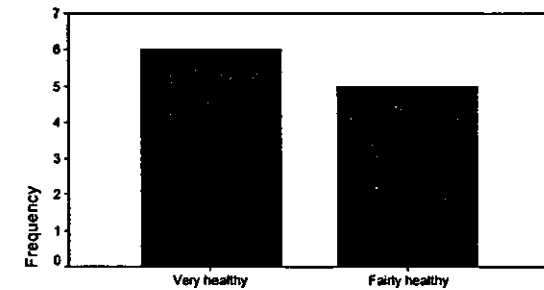
Perceived diet status

Cases weighted by DISTANCE

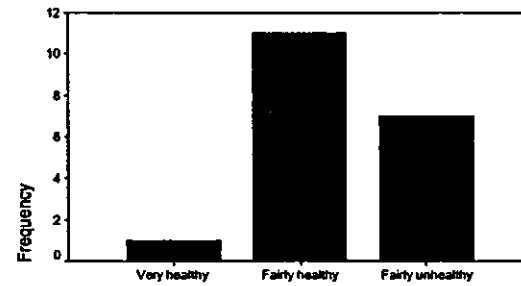## Perceived diet status

SUBGROUP 3 Relapser

Perceived diet status

Cases weighted by DISTANCE

Perceived diet status

SUBGROUP 4 Inactive

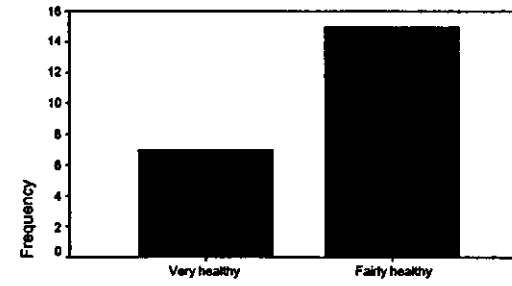Perceived diet status

Cases weighted by DISTANCE

Perceived diet status

SUBGROUP 5 Over 50s

Perceived diet status

Cases weighted by DISTANCE

225

Appendix D - Focus Group Interview Schedule

Ice breaker

What does the word 'exercise' mean to you?

How about 'sport', 'physical activity'?

Past behaviour

When & Why did you start exercising?

Have you ever not exercised? - patterns/influences

Do you exercise other than at this club?

Current beliefs/attitudes

Why do you exercise? – perceived benefits

What do you enjoy most about exercise in general?

What do you dislike about exercise in general? - Barriers

Self-efficacy

What, if anything, makes it hard for you to exercise regularly?

How confident are you that you can get over obstacles?

Would you like to exercise more?

Peer support

Do you exercise alone?

Do any of your friends/family members exercise?

Do your friends/ family think you should exercise or support you?

Do you consider yourself to be fitter, as fit or less fit than others of your age group?

Sponsor specific

Why did you join this club?

What do you enjoy most about being a member of this club?

What do you dislike about this club?

What would you change about this club if you could – suggested improvements?

              describe gym stuff AND other e.g.sauna, bar etc.

or if a non-exerciser: Health Clubs

Have you ever been a member of a health club?

If I say 'health club', or 'gym' what image do you get in your mind?

What could a health club offer that would make it attractive to you?

Are there any physical activities/sports you would rather do?

Individual Interview Schedule

Items in italics are previous findings/ideas that need to be explored further

What does the word 'exercise' mean to you?

How about 'sport', 'physical activity'? *(sport is for youngsters)*

Past behaviour

When & Why did you start exercising?

> (+ve or –ve past experience? Does it make a difference?)

> If yes – did you enjoy it? *(exercise being a chore)*

Why did you stop?

Identity

Have you ever considered yourself to be an 'exerciser'?

What do you think of others that exercise regularly?

Current beliefs/attitudes

Why do you exercise? – perceived benefits *(prefer moderate activity now?)*

How important is exercise for health?

Are there any times when exercise is bad for you?

> *(how much is enough? – age specific?)*

Would you like to exercise more? *(I'm okay as I am)*

What would make you exercise more?

What stops you from exercising? – barriers/ self-efficacy

> *(excuses not to exercise – distractions)*

Peer support

Do you exercise alone?

Do any of your friends/family members exercise?

Do your friends/ family think you should exercise or support you?

Do you consider yourself to be fitter, as fit or less fit than others of your age?
Identity

What does being 'middle-aged mean to you?

Do you consider yourself to be middle-aged?

Health Clubs

Have you ever been a member of a health club?

If I say 'health club', or 'gym' what image do you get in your mind?

> *(fitness fanatics or role models?)*

What could a health club offer that would make it attractive to you?

Are there any physical activities/sports you would rather do?

Appendix E – Individual Case Studies

Each case study has been written using verbatim quotes from each persons' interview. However, although every effort has been made to ensure the context of each remark remains true to the original conversation, the narratives presented here are an amalgamation of each response into a 'story' that reveals each participants' perceptions, motivations and behaviours. Accordingly, the author has slightly altered some quotes to make the story more readable. Names have been changed.

Established Exerciser – Socialiser

Pauline (55) is a part-time book-keeper from Sheffield:

"I've been active ever since I was a young girl and then I played squash then found that too hard and changed to aerobic classes. I think if you exercise you've got a positive outlook on life don't you? If you exercise a lot anyway. Far more positive. Healthy mind, healthy body. Apart from a few glasses of wine and a few bags of chips but ... *(laughs softly)*. It's a matter of keeping fit anyway, not keeping thin isn't it? Because, I mean, there's a lot of thin people that aren't fit at all. I enjoy it socially as well really. I meet some great people.

"I come during the day, I don't come in the evenings at all but I sort of work 12 hours a week book-keeping and sort my classes around it. I'm a cheapy! I'm only an 8 'til 4 member. That's all I wanted to afford at the time and it's worked for me. As I say I work it in around my part-time job. My family understand, it's always been accepted that I always, I've always done something so it's just... I don't need support really, I'm self-motivated.

"I think it just allows, if you come regularly, it just allows you to run your life, have what you want, a little bit of everything, without worrying about it and if you do happen to fall ill, you get better quicker. There's a difference, yes your heart, your lungs, your joints if you can. And if you can't then you swim because it's great for all the people with arthritis. I don't have any but there are lots of ladies who do the aquaerobics who've got a lot of joint problems

and it's good for them and I shine when I'm with them because they don't jump as much as me!"

"The classes I prefer because I like meeting people, the gym is good but it's a very lonely life, the gym and you have to go there and be very focussed so I've made use of the classes a lot more. I go to another club on a Thursday. It's a circuit-training type of thing but it's purely a social thing that I meet the girls who live the other side of Sheffield. It's just a social thing.

"I wouldn't change clubs. I think it takes time to build up friendships with people anyway and I feel very at ease here now. I've been coming two years I suppose, I mean I did have four months off after my operation so I didn't go to classes, but since I've been going to classes I've been meeting an awful lot of people. The same people every week and it's good, you feel relaxed. you can come in and have a coffee and sit with people. When I first came I thought 'shall I go and join them or shouldn't I?' and I thought 'no I won't', you know, and then you build up a bit more confidence , you say 'can I join you?' 'yes course'. So I don't think I'd want to change now. Well obviously you get a buzz out of it because I look forward to coming.

Established Exercisers – Peter Pan

Gillian (49) and James (48) from Enfield joined the gym a year ago but have both been active for many years. Unlike some 'Peter Pans' that exercised purely to keep young, this couple had a more balanced approach to the physical and psychological benefits of exercise. They accept the aging process but seek to minimise it:

J. "The first thing that got us here was a/ it's within walking distance, that's the first thing, second thing it looked good and it had the right facilities um, the pricing looked far better than the city clubs which are considerably more expensive, I'd thought about those before but I do not need to pay that much for things that I might not be able to do during the working day anyway. And then this opened up and I thought oh okay let's give it a try. And er and we started the 1st November and they were happy it was opening and welcoming and the facilities are good, you've got one or two drips in the roof (laughter) um but that helped immensely, it was a very positive way of actually bringing the membership in. They actually got you involved and got you, got you committed. So yeah, they recognised, they tailored the starting point to what level of fitness you were at at that point and what you wanted, what you wanted to get from it. One of the 5 questions that the trainers asked when we came was 'what do you want from being here?' and you immediately think of your goals; you immediately felt that you owned part of it, it was very helpful."

G. "I remember my question and my answer and I remember his. I said to be fit and old and he said 'I can help you with fit but I can't help you with the old!' And he said 'what do you want?' I said to be fit and old. Not that we're talking about motivation, well I suppose we are in a way, but one thing about coming here was because I'd never been to a gym in my life, what appealed was that because this was new everybody coming here would be "new", to this (health club), whether they'd exercised before or not. When I went upstairs and I saw these machine I thought 'oh my stars I've never seen any of these' but they expected me not to have seen them and any class I've done, they expected you not, because they didn't know where you'd all come from they all started

at the beginning and I think that was a great thing because any other gym you go in, not that you'd do any of my girlie classes, but things like aerobics for example, a grapevine, box, well, unless you know what it is you're at a total loss but because I've been here since the beginning they've actually taught us - we've actually learned, so I now feel confident going to Centre Parks and joining in one of their classes because I do know what they're talking about. So that actually added another motivating factor to coming, because to go to an existing gym and walk into a class where all these people are doing the 'right thing' so to speak, is very daunting. So that, I mean yes, that was good motivation."

J. "Before then I'd played badminton consistently for a number of years a long time ago but I only started regular exercise this time last year. I also walk to the station every day and walk the other end, 10 or 12 minutes, good brisk walk sets you up for the day. I've been doing that for 17 years."

G. "I walk, because I don't drive, so I walk everywhere. And I do P.E. at school with the children, I run in the playground so, I mean, I am active, I'm not sedentary during the day."

J. "We joined about a year ago, mind you, I think we have surprised ourselves with the amount that we've done. We thought, yes that we'd come regularly the amount that we have come has been astounding."

G. "Other people at school, they do admire you. They say 'oh, you're really good going to the gym'. They don't think that they could go but they do say that. It's a good sense of achievement. After a year you can actually see the improvement. Well, you don't see results instantly do you?. It took about 10 months, I would say."

J. "To really get there. You can feel the difference in 6 months"

G. "10 months"

J. "But to get now to the year, you really know that there's a difference been made."

G. "And when other people comment. You know when you go upstairs (to the

gym) and they say 'I remember when you first came you could only do .. ', you say thank you."

J. "It's positive, it does feel a lot better. You notice the difference, not just in the way that you can move around, I couldn't run for a bus and yet last week I had to get the train fairly rapidly and I astounded myself that I could actually run the distance that I did at the pace that I did in the time that I did. I'd never have made anything like that a year ago."

G. "Also, I went to the hospital three weeks ago and they took my blood pressure and she said 'my goodness, do you exercise a lot', and I said 'yes' and she said 'you've got a very good cardiovascular system', 'cause it was very low, it was 115 over 50 and she said that's because I exercise a lot; so that is medical proof that it's actually improved my cardiovascular system, yeah. When she said to me, 'do you exercise regularly?' and I said 'why?' and she said 'well because your blood pressure's very low' and I said 'does that matter?' and she said 'well, apart from passing out', she said 'no your cardiovascular system is very good'. So that's within the year as well.

"I exercise to ward off the ills of old age, there you go! Well I'm serious. To maintain a level of fitness. As you get older, I mean, the body does slow down, it does wear out so you need to keep your fitness level up. Things like osteoporosis and all these things, so that means, yes, it's keeping fit and healthy."

J. "It's totally different. Anything that we do in the gym, between the two of us, is totally different to what we're involved with normally so it's, 'a change is as good as a rest', it's so you're not having to rest at all. You're burning up quite a lot of energy. We've kept a lot better over the past year than before, in that we've got end-of-term-itis, but it tends not to catch us up now because our bodies' actually working better, and it's able to mount resistance and stave off disease attacks. ... yes that's a very tangible benefit."

G. "Yes it's also a stress reliever. You've had a long day at work, you're tired, if you come here you actually overcome that tiredness, once you've made the effort, then you can forget about it; you can do your paperwork when you get back home, but for the time you're here, I don't think about it when I'm here. I

do sometimes think why am I here when I could be at home, I've got all that paperwork to do when I get back though."

J. "Yes it's the occasional effort to come out and do it. You sort of get to the point where you think 'now I'd like to stay in tonight, can I really be bothered?' And then Gillian leads off so I've got to go"

G. "I'd go if you didn't"

J. "You're going anyway so //"

G. "// I'm the driving force!"

Interviewer. "So, if your wife wasn't coming ... //"

J. "// There would be less incentive, yes. Although, the strange thing is we don't actually exercise together. We don't do the same thing, even if we're both in the pool together, we're not swimming together, but it's just, I suppose it's the conversation on the way, the conversation afterwards over a cup of coffee and the conversation on the way home! Again, it's something very different and the variety that is the attraction."

G. "Well I'm the one that ..."

J. "Yeah you're the one that leads off because you're the one that gets home first and has usually got things done when I get in from the station and then she says, 'oh I'm off the gym', often because she's coming to, Gillian does more classes than I do, you see I haven't got a very structured regime here in that, you're missing your aqua class today"

G. "That's why the girls keep waving at me! I should be in there!"

J. "And I only do one class on a Saturday, but that's the only structure, I tend to build the things I do around work demands or I stay late at work if there's meetings and things, but you know it's sometimes a bit of a push to come out and do it."

G. "In fact a lot of the time. Sometimes he follows 40 minutes later, I mean on Saturday his class is way in front of mine, and sometimes when he's on call I come by myself. Well we don't exercise with, 'cause upstairs there was a scheme, do you remember, there was an advert where you could, 'are you

lonely exercising? Find a buddy to exercise with!' I certainly didn't do that, but there was a scheme."

J. "Was that ever taken up? 'Cause I know that there are obvious friendships that have developed with people who do exercise together, usually in the free-weights areas with them checking each others ... I actually see people out in the street who I recognise from here, but I've never known them before. Now I think 'he was on the cross-trainer next to me last night!' and he's a sort of nodding acquaintance outside, so your network grows."

G. "I take my swimming costume to work in my briefcase and once it finishes I'll come down here. I always go with the intention of coming here afterwards. If I get a school parents evening or something I will have my / like tonight just in case there's time I'll bring it with me, so that's the intention. If I can't do it, it's beyond my, there's nothing I can do, it's beyond my control. So my intention is always to come so that's good. I mean I came with my hand wrapped up with my stitches in, I swam with my surgical glove on, so, I mean"

J. "Dedication"

G. "Yes but I felt much better for it. I looked funny swimming with my glove on!

Swimming is quite good, when you've got little time and you haven't got long enough to do the gym, you do 50 or 60 lengths about a kilometre or so just swimming."

J. "This is true. It's almost the other way round. If I've got a meeting that finishes, what, 10 o'clock, somewhere in town, I usually, well, I try to take my swimming trunks with me and as I come through the door about quarter past 10 there's time enough then to do 50 lengths and have a shower and you really feel good about it. And, again, it's something completely different. You've been sat down, brainstorming or whatever and you come here and start physical activity and turn the brain off and it's great! It really does balance things up."

J. "Yeah, it's a lot easier to get a whole body session if you know that at the end of an evening that you've got half an hour doing it. I can't really get into a

gym session in half an hour. Yet I know that half an hour in the pool, I'm up to about 50 lengths and you can extend yourself, you can actually get a good workout. It's a different workout, it's lower impact, I think it's slightly easier, it's different and the variety is a lot of the attraction. "

G. "I try and balance it. I tend to do three days in the gym, two swimming and perhaps two class-based, which is seven. But, you know, alternate it. Until the Vittel challenge came along and I'm addicted to getting T-shirts for my daughters so I'm in the gym rather than the pool. Once I've collected them each a T-shirt then I shall be back in the pool. Both our daughters exercise regularly. One fences and does yoga, the other one rows and coxes."

J. "And cycles"

G. "Cycles"

J. "Swims"

G. "At university"

J. "My brother does still play badminton. He kept at it for all the time since I gave up. He's very good .."

G. "My brother plays badminton. Our daughters think it's quite cool, they can't get over it! Having a mother and father that go to the gym!"

J. "Wow!"

G. "Wow, yes."

J. "I don't know if exercise keeps you young but it definitely helps. In time *our* needs from physical exercise will change. That's one of the dangers of being a 40 year old, you've still got the mindset of a 30 year old but you get to the point where you sort of have to change the way you think, you get to the point where you have to change the way that your bodies work and that you work your body; and it's important that then instructors would know how to address that changing need in a person. Obviously in one year you don't see that much change but for someone who maybe coming here for the next 25 years, which I'd like to, well my needs are going to change."

Julie (48) is in Sales and Marketing. Unlike Gillian and James she focuses almost entirely on the physical benefits of exercise and her intention to stave off the aging process:

"Exercise is a means of staving off the inevitable aging process. It keeps me as fit as I possibly can be and helps me to prevent gaining weight, so I'm afraid with me it's pure vanity. I'll go kicking and screaming all the way to old age and retirement I'm afraid. It helps me do that. Makes me feel good as well. I've always done it really. Before (this club) I was at the Northern General for 16 years working and they always had a gym so I used their gym. I was at the Lloyd House in Sheffield for a while. When I wasn't in a club I always did something, I used to run or try and do something so I've always done some form of exercise. I've never not done anything so I wouldn't say I'm an exercise fanatic but yes I exercise. I like to keep fit, I like to look after myself, it's important to me from a health point of view.

"Some people say exercise is narcissistic. I say absolutely, why the hell not?! My God, I mean you've got to look after yourself 'cause nobody else is going to and that to me is important. So yeah, absolutely narcissistic.

"You have to do what is right for you. I mean I don't have children, I've never had children, I've always had my time for me and I've got a husband that's big into sport, plays football four times a week etc, etc, so we're both of the same mindset, so it's easy for me to say I get up every morning and go to the gym at 6 o'clock. There's nobody to tell me I can't do that and I've nobody to say to me 'you can't get up at 6 o'clock. But when we're talking about time for work, I don't work nine to five and I don't work in Sheffield and I work all over the country, sometimes I don't get home 'til 9 o'clock at night, I can't go to the gym at 9, it's completely impossible so I have to make my time in the morning 'cause I'm flexible so I can leave home at 9.30, 10 o'clock. But I have to make myself do it. I have to set the alarm and I don't think about it. I just have to pull my clothes on and get out the house before I have time to think 'it's dark and it's 6 o'clock and I want to stay in bed'. I mean I'm not, I could very easily do that, I just have to make myself go and do it. It's 'cause I'm

narcissistic, use the word, yeah, because I just think, very soon I'm going to be 50 and my God am I going to dig my heels in all the way 'cause I don't want to be. So that's why I do it and I hold my hands up and say that's why I do it. It is a big milestone. When you get to 50 you'll know!

"My husband's 51 and he's still as keen on sport as he ever was when I first met him 25 years ago. He still goes football training twice a week, he still plays football three times a week, he's an FA coach so he coaches kids. His love of exercise has never diminished in all the years I've known him and in fact he's probably as bad as me 'cause the older he's getting the more determined he is to stay fit *(laughing)* so we're probably both in the same mind set, which is probably good.

"I don't think exercise is a social thing but I think that depends on what you come for. If you come for a social activity, to me you don't come to a gym, that's not what you do. Not what a gym's for, it's not for socialising, I think it's to come and do something. Socialise afterwards and have a coffee together and a chat but when you're in the gym I think you're in the gym to do the business and that's it. I enjoy doing it but I have to do it. 'Cause if I don't do it, there are consequences and they're consequences I'm not prepared to accept so although I enjoy it, I have to do it so it's a double-edged sword, if you like, although I enjoy it when I'm doing it anyway."

Aspiring exercisers

Patricia and Yvonne are from Lichfield. They are both relatively new to the health club although both have dabbled in exercise from time to time in their lives.

Patricia is 47. She uses the club once or twice a week but would theoretically like to go more, although she doesn't really enjoy it. She has two young children (age 10 and 13) and sees that as the reason she doesn't exercise as much as she'd like.

Yvonne is 51 with two older children. She also exercises less than she feels she should but understands that it is more down to her motivation than her time commitments.

P. "I rode a bike, which I loved, up until, 'cause I learnt to drive late, I was 37 when I learnt to drive, which I was desperate to all the years but I never got round to it. But as soon as I learnt to drive my car I just didn't go on my bike again. Even though I was aware I was doing it, I just loved to drive. I hadn't really noticed it properly until my late 40s and my health had a couple of problems, I'd just put a lot of weight. I've always had loads and loads of energy and that was waning and since I've been to the gym, even if it's a chore to come, a couple of days later you feel so great. I think you do feel better for doing a bit of exercise. I've done the step and that but I don't like that. I've started the Tai Chi which I thought was wonderful so I've dropped the classes and just stuck with the gym. I haven't been brave enough to go in the pool yet

"I try and come swimming twice a week. I would like to come three but it depends on what's happening at home really with the two children. My husband's running the London Marathon so he's out training at the moment so, you know obviously it's the children really. But I do try and go out in my half hour dinner as well, just go for a walk. So I do try and go out for a half hour walk at least 3 times a week as well. But it's as and when really, fitting it in."

Y. "Up until probably Christmas and probably in the winter months it has been only twice a week but as the weather gets better you tend to come, often three times a week. I'm pretty inconsistent. When the weather's bad, I mean, you get colds and things and you know. And when you come home if the weather's bad... The big thing is I try to come straight from school, I go in, make myself a cup of coffee, have a biscuit standing up, I don't sit down, and then I come straight here. Because if I sat down I wouldn't come so that's all I have to be disciplined. So I'm not that mad on it! (laughs)

"In the school holidays although I come more, I don't come 'cause I waste so much time. Because you just switch off. And yet this Saturday morning because I missed it the week before so it would have been two weeks since I came, my son, daughter-in-law and grandson had come home and they were all still in bed when I woke up, just 'cause you wake up at the same time, and everyone was still on bed so I thought I'll get to the gym and still get back to give Luke his breakfast can't I? 'Cause I can only stand an hour up there, I can't stand longer than that, I know some people stay; and I'm watching the clock, I am clock-watching actually. But it's only up the road so I'll make that effort. I got back when everyone was getting up and so I went back in at quarter past 9 so it's funny really because that, a lot of my friends think I'm barmy going at that time on a Saturday morning.

"It's a good time to go then. I can't stand having to wait. I can't stand lots of people or people using the equipment and sweating all over it and not having a towel to wipe it, which a lot of them do, they're not encouraged to use a towel and a lot of people wouldn't bother but it bothers me. But I do like it when it's quiet and it is nice when there's only a handful of us. Saturday morning I come without my make-up and no one sees me. And that is a brilliant thing. That's probably why I come at 8 o'clock."

P. "I think it's my lifestyle, I think it's having the children. It's alright when you haven't got commitments really, and I think that's it, with me really. I'm like a taxi service for the children and that is exactly what I am."

Y. "Yes but I don't think I still use that time, even though they've left now."

P. "Oh don't you?"

Y. "No, but I feel that's probably 'cause I work really hard 'cause I do come more during the school holidays. But I only live down the road so I can't say I have to get up here. I don't know if I would ever come every day even if I didn't work, you know. But some do."

P. "Yeah they do, I mean I met a lady, I come very early on a Sunday usually or a Saturday morning for a swim and I met a lady then and she comes every day   without fail for a swim. Half hour swim every day without fail."

Y. "My friend at school, she's always done it. Has gone to the gym at half 6 in the morning before school and then she gets ready. I couldn't do that."

P. "Yeah I think a lot of it is self-discipline for me as well. 'Cause on a cold night you'll have an excuse"

Y. "My friend knows someone who comes to the 50s class in the day and she says 'oh I want to be able to come here', she says 'and have coffee together' and apparently they are quite sociable now, that group. Apparently it's quite nice and my friend said 'oh I want to be able to come' to her friends. 'I wish I could come and have coffee in between'. They all have a natter. They must have become friends this little group. Yes they must do one thing and then do something else. But they have a break, probably in between. I'm only presuming from what she's said."

P. "I come swimming sometimes with my older daughter. She's at tennis lessons now. That is one of the reasons why I joined this. Because the children could come, you know, the school holiday really. I have Fridays off, I used to go swimming and there was a group of ladies who used to meet every Friday lunch. I think they used to have a swim but really they weren't there for the swim and they used to sit all round the edge, with their lunch and they used to chat. They did it every Friday without fail. And it was just to meet and have lunch together and have a natter. And there only used to be me in the pool and it was lovely! Lovely dream to have a pool to yourself and yet that was quite friendly, that seemed to be because there were a lot of them.

"I thought it was interesting that I'd got children and you hadn't, your children are grown up now and you're still like ..."

Y. "Idle! Using it as an excuse!"

P. "The thing is it's not an excuse. It's a real situation."

Y. "I wasn't picking on you then, you do think 'oh I have to take the kids here there and everywhere', you just have got to take them.

"I think it's because when you go to work you have to be somewhere don't you and when your children come along you always have to be somewhere. And all of a sudden you don't have to so you've got freedom of choice haven't you?"

P. "But they are the most important things aren't they? I mean they think it's great that I go to the gym. They go 'are you alright mum, have you had a nice time?' They ring my up and say 'have you had a nice time at the gym?'

"I suppose the other thing is if we see one another in here now we'll say hello."

Cautious exerciser

Julie is 51 and used to play netball but gave it up because it became too active for her. She teaches swimming twice a week and believes walking around the pool and one or two gym sessions a week to be adequate exercise.

"I used to play netball and then that got too active for me as I got older, thirties, I stopped playing netball and wasn't as active, as fit as you used to be, puffing when you got up the stairs and thought better do something. I've always been involved in swimming, either helping out with teaching, so there's a lot of walking around the swimming pools and things when you're teaching, just a need to keep fit really. I think as you do get older I think I find it harder to actually keep fit. I find it harder to get myself going and try and keep to a regular regime of a couple times a week exercising. I often feel I don't want to go but after I've been I feel good for it. I don't feel as fit as I used to be but I would say that I am fitter than some of the people in my age group that I know.

"I've actually got a daughter that comes along that drags me along so it's quite useful 'cause she's young and she's more keen and she says 'come on mum', so that's useful, but my husband does discourage me, he doesn't come in with us!

"There's been a lot of adverse publicity for older people doing too much exercise lately hasn't there? Causing blood clots and things, overdoing in, doing too much, this kind of age group. I think I can tell actually. I tend to feel that I'm going a bit dizzy or whatever. I think the one fitness trainer that they did have here, that was good that did do that with our age group is not here any more. I mean some of them look like 12 year old kids out there. Perhaps that's just me getting old but they do look quite young and I do question what experience they've got to actually tell us what to do sometimes.

"The instructor who was here before had me using the heart rate monitor and I used it for probably about six months because I couldn't be bothered to keep getting it out and keep putting it on but I think that taught me when, I

learnt where I can, more or less how far you can go. I found the treadmill hard. Yeah when I was wearing the heart rate monitor I was quite surprised that I've obviously pushed myself too far before I'd been wearing it. I think you can overdo it if you've not been told what you should be doing in the first place.

"Recently I've noticed the lack of, especially the time of day that I come, there is a lack of instructors. I was here with my daughter the other day and we did say if someone had an accident what would we do? They haven't even got any panic alarms or anything like that that you can press if something happened. If there is I don't know where they are, let's put it that way. I'm used to those sort of things in swimming pools and things so it would be the first thing I would look for."

Reluctant exerciser

Jan (female Low User, 50) was overweight and self-deprecating.

"Well I don't have a very good programme of exercise I just try and do something once a week at least. At the moment I'm trying to lose weight, not very successfully. I mean I've always done something but, some class or another but I only come about twice a week at the most. I'm definitely not fitter than anyone 'cause I sit down all day. I don't do anything active at all.

"I don't use any of the equipment I just come to use the swimming pool. My boss died on a bike at the gym so I couldn't go on one of the cycling machines. Nobody's ever asked me, I never use the machines, but nobody's ever asked me, suggested I come and try it. One of the things I've got high blood pressure so I haven't even dared go on any machine. I would need someone to tell me exactly what to do.

"My husband's disabled and can't come at all which is a shame 'cause there's no facilities at all for disabled people. Not in any of the swimming pools in the city centre. Unless you go with a group that are disabled which is not the right thing to do.. He wasn't to go to a disabled swimming club. He just wants to be able to get into the pool without having to walk. My family object when I say I'm not going to make tea I'm going to the swimming pool!

"I like going to the Aqua classes because that's what I came for and they're good fun. I enjoy the company, people the same as me trying to get a bit of exercise and lose a bit of the weight so we don't have too many young people coming! All the people in my aqua class are all my age and all fat! (laughs) One of the reasons I come is 'cause I know it's at Wednesday evening at 7 o'clock and Saturday at 11 o'clock and I wouldn't come if I could just pop in and out. And then you get to meet the same people, that's the reason."

Procrastinator non-exerciser

Susan (47, Relapser) works part time and used to be a member of the health club and is considering re-joining. When she exercises regularly she would be a 'Peter Pan' as she has a high perception of exercise and a high desire to exercise in order to keep looking young, however, as she lacks motivation she is further to the back of the exercise cube.

"I can talk 'til the cows come home about exercise but it's just getting up and doing it, that is the thing. I have to be pushed, cajoled, everything that I shouldn't, I have to be. This is the sad thing because it is fun and should be fun and we should still be playing sport but I think you get to an age where you think 'I can't do that like I used to'. I used to do every sport. I ran for Sheffield, I played badminton, I played hockey, you name it I did it, I swam. But all of a sudden I just got to an age where I thought I can't do this no more. Why I don't know, I don't know if it's age that's took over or what, or enthusiasm, I don't know.

"I joined the gym to lose weight, simply to lose weight. I didn't even think about the fitness, the health side of it, I just thought I've got to get some weight off so if I joined a gym and I can get the weight off. I joined, oh gosh, over two years ago and then I stopped after a year. I did a year and stopped coming but I'm rejoining now.

"It's obviously a vanity thing as well and of course I've got a younger partner which makes it hard for me even though he doesn't make it hard. I go out, he's a lot younger, with girls of 30, it's really nice, I wish I'd got to be like that but talking one's thing and doing it's another thing altogether! But I think if I'm a member of the gym it makes me think 'oh I'm a member of a gym now so it's there if I want it' but you've got to go down and do it. I think I've got it in my mind that I've got to do it 'cause I've got to be 14 years younger than what I am for him, even though he doesn't bother, this is what. It's up here

mentally but I just don't do it. This is why, I think, I joined 'cause I've got to keep under 50. I don't want to get to this 50 mark – I want to keep under 50.

"I personally would like to be like those people that exercise all the time. I get al.l the slimming magazines and I just read them and that's it. I'd love to be like that I really would. I'd like to go back to how I was when I was younger and just be fit.

"I started on my own at first but then I joined my partner because I thought he would give me some incentive because he's really exercise crazy so it was a case of he'll be there every night and that will make me come down but he was going and I was still sat watching Coronation Street! *(laughter)* and he'd say 'are you coming or not?' oh I might come tomorrow. So it wasn't really an incentive.

"To be truthful I think there's nothing to dislike, it's just getting here. Once I'm here there's nothing. When I'm in the house and I'm putting my trainers on thinking 'oh Coronation Street's on I'll sit and watch that, I'll do that. It's that, I really could do with being a big boot up my backside, somebody kicking me out every night, saying 'go'. And if my friend rings up and says 'I'm going', we go but she's only got to ring up and say 'are you bothering?' and I'll say 'no I'm not', but once I'm here I love it.

"You see if my partner was here he'd say 'you can'. You see I do this, I can't fit it in, I'm going to the dentist in ten minutes. 'But you're there for half an hour, what are you going to do the rest of the time? You know. But I'll do that, 'oh I can't fit it in' and he'll say 'you don't want to fit it in, otherwise you would fit it in and you'd leave the ironing and you'd fit that it'. And I agree with him. If I've got the ironing to do. If I've got the choice, the house has got to be done first. That's the main priority. I will come down here when the house is done, the washing's out, the garden's done. I will come down here then. I mean I know you keep saying you haven't got time but really if you prioritise your work you have got time. I had more time when I worked full time with three children than what I've got now and I'm part time with no children; and I had more time then 'cause I just kept going. Now I have time to sit with a cup of coffee and think 'shall I do that?' Oh, the sun's shining, I'm sat in the garden

and think I won't bother. I've got to the age where I think well this is what I've worked for, this is my time now. I don't class the gym as my time even though I should. I class the coffee and the swimming as my time, I come down and meet a friend for lunch but I don't class the treadmill as my time, that's work.

"I stopped being a member because I wasn't coming. It was costing me £100 a month for me and my partner and I was coming once a month. It got to that. I mean at first I didn't I came down three or four times a week when I first joined 'cause it was a novelty but then it got to be once a month and I thought this is crazy, you know. Plus I think a lot of it was self-consciousness. I always remember the first class I ever did. I came down to a class, because I find they're better really for me than the gym 'cause there's somebody telling me and focussing me on what I'm doing and they're telling me if I'm doing it wrong or right, and I came down to the very first class and I just saw a load of these beautiful girls, all slim and I'd got this baggy t-shirt on and I just got my bag and I just sidled into the gym, got on a treadmill and put my headphones on and I just wouldn't do the class and a lot of that was just self-consciousness that I wouldn't go in because there was nobody like me. There was nobody probably over 35 and I'd got a big baggy t-shirt on and they'd all got these tiny things on. So that put me off, totally. And it was a man instructor, which also put me off when he came out all fit!

"Well I like to think that I'm a little bit fitter. Only 'cause I bump into people that I've been to school with and I think 'oh my goodness!' (laughter) They say you're only as young as the man you feel! Yeah I do do that. Mentally I feel 18, but for a lady who's probably had children as well, you do tend to lose your shape, you do tend to cut out a little bit at 45 onwards, but you still feel fit and if you're healthy, touch wood, I mean that's everything, if you've got you health then that's the main thing. I see myself as physically active, I never sit down, I'm always doing something.

"To me fitness, you're talking about exercise but I'm talking about how people look as well. You see if I see a fat person, I look at somebody fat and think 'oh God, they're not fit', they might be fitter than me, twice as fit as me but I won't class that as fit. I look at people differently, I've got this warped sensation about this, that if you are slim you're fit and you look well. If you're

8½ stone and you're 50 years old you can dress younger, you can look good. You look totally different to a 50 year old fat person. So you look fitter anyway, you might not be. It's perceptions – you look fitter and I think the reason you join a gym is that's what you want to look like, I don't care what any women say, I'm going to speak for women now, but every women wants to look good, especially as they're coming up to 50, I think."

Delegator Non-exerciser

Chris is a 54 year old Insurance Engineer who was never really interested in exercising regularly, he just did it for health reasons and left because he disagreed with the health club's policies on children in the pool.

"Exercise is something you should do but never get round to, I think this is the trouble. Sport? Not at our sort of age group, I wouldn't have thought anyway, I mean I know people do, but I would have thought that sport is more for younger people.

"I joined because of health problems. I've got a very bad back problem and I've not worked for, I've been off work for, well I was off altogether for about four and a half years on and off. I had an operation and I went back to work too soon, like you do, and they gave me some work that they shouldn't have given me and basically I was lying on my back, one of my discs prolapsed in my back and it was like someone had shot me in the back and I was off for a long time and I had all sorts of treatment for this thing, I've had physiotherapy and acupuncture and traction and all sorts of things, spinal injections, everything and nothing worked. So I came to join here with the intention of going swimming because that was the only thing they could suggest. I can't do a workout in the gym, that's totally out. My wife and my daughters joined as well and they used to come in at ordinary times. My wife's still a member but she never comes down but that's another story! But I joined for health reasons basically. I stopped about last, where are we now? It would be about a year last Octo.. yeah about a year ago.

"I mean once you get here it's great, I really enjoyed it, apart from the, I mean the actual exercise itself, I used to enjoy. 'Cause I had to do something anyway 'cause I was just fading away basically! I mean I just couldn't do anything at all. So in that respect I think, I don't know, it was the discipline, the actual, I think you've got to really put the time, you've got to set the time, per day, per week, whatever you have to do, or so many times a week and you've got to stick to it. It's a bit really like going to work or doing anything else, you've got to set that time, because otherwise you just don't go.

"I never hand any pressure from anyone to do it. To a certain extent I suppose it depends on the person, 'cause, like you say, if you've got family on one side who are fitness fanatics or whatever then maybe, but it depends on the circles in which you move in as well. You know, if you've got a circle of people who aren't particularly exercise-orientated you feel like there's not particularly any pressure on you is there? Your family or whatever.

"Exercise is extremely important for other people, you know! I think it is important but it's a question of what can you do yourself? you know, what are you comfortable with isn't it at the end of the day? Yeah it's important if that's the question, yeah it is, but whether you actually get round to doing it. (sighs) I have to do a certain amount, yes it is important, because if I don't I'll just seize up completely but it's the extent to which I do it, it's really just getting into sort of some sort of moderation that doesn't, because if I'm not careful I'll do myself more harm than good, you know, so you just have to do as much as you can. But I do, yeah, I try and walk as much as I can but it's not as much as I'd like to, let's put it that way, so yeah, it's important.

"I think I'm probably almost as fit as a lot of the people who I, in my circle of friends if you like, and probably as well as some of the people who I work with. I would like to be fitter, I'm certainly not as fit as I was but that's because of circumstances as they are, you know, and I don't think, whatever I do, it's not going to make me an awful lot fitter because I simply can't do anymore

"Mind you, if you say you don't have enough time like I do, but I always make time to go to the football on a Saturday afternoon. It's only the same sort of thing, it's only doing something which is, that you don't have to do, if you like. But because it's something that I like to do and I enjoy doing it then I go, I find the time. My daughter likes to go and it's something I can do with her, so we make the time to do it. I've always made the time to do that, here we go. There's no, if it's raining, snowing or whatever, providing they're playing we go. There's sort of a goal, I don't know, don't know what's different between that and coming here and doing exercise."

Uncertain Non-exerciser

Christine is a 49 year old inactive admin worker from Loughborough.

"I think exercise is good for you but at the same time I would be fearful of pushing myself too far. I have a relative, it was an auntie, who died of hypertrophic cardiomyopathy and the idea of sport, I mean they tell you to exercise until you're feeling breathless and I just daren't. I mean it's a logical reason why. I mean I'll exercise by all means but I'll stop short of making myself breathless. It's just not worth the risk.

"I don't have anybody who's pushing me or encouraging me to do anything physical. I used to have dogs but I lost those a few years ago and since then I've done nothing. A few years ago I went to an aerobics class and I found with music it was relentless. I just had to keep stopping and everybody else was carrying on. It was quite embarrassing really. I've never been involved in anything on a regular basis. Occasionally I've been invited to go and do something, which I would, and in the years gone past I would have gone happily to have done it but now I stop and think well I'm not really fit enough to do this.

"I would say I'm less fit than most. I mean I know people 30 years older than me who are far fitter than I am. But I'm particularly struggling on, I would say, the stamina level. And it's all more to do with cardiovascular system. If I bend down and then stand up I go dizzy so I'm careful to do things that I can do. When I compare myself to other people I tend to look at them and if they smoke and drink heavily then I think I've got two plus points there already so perhaps I don't need to exercise so much.

"Swimming is the one sport that I would feel comfortable. If I could go swimming immediately after work I would quite like to do that but I cannot see me wanting to go to a sports club. There are constraints on my time because I've got other hobbies. I mean I play the piano I spend quite a lot of time arranging music. You know so whatever I do I can't be doing everything. I'd rather be doing the things I enjoy. I was hoping that with the new swimming

pool that maybe the facilities will be better and if that is an option immediately after work that's the one thing that I might do. But there's little else that I would do."

Indifferent non-exerciser

Adam is 55 and a teacher from Birmingham.

"I used to play badminton a lot, I used to cycle when I was younger, play tennis and at college I used to run the badminton club and I coached badminton, I've run badminton clubs but once I started teaching I hardly ever had time for it so I just didn't do it 'cause there was no time. And that is the real problem, I don't have the time to do any actual sporting activity that would give me exercise. The once thing I could do is to go to the nearby health club which is five minutes walk away, literally. But one, it's very expensive and two, it doesn't do anything that I'd be interested it, like swimming, I couldn't care less about swimming, that's another chore. If there was a games activity that I could do then I'd do it but not a competitive one, which is a contact one because I'm hopeless at them.

"If you're *made* to it and you know you're not particularly good at it, it's a complete turn off. If you're made to do it, it's an endurance test. I mean I used to think of all the different excuses to get out of P.E. 'cause I used to hate P.E. You didn't enjoy it 'cause it's exercise.

"Isn't exercise a sort of loaded word? I mean we went out to Shropshire and there were lots of people, it was like geriatric town where we went, we went to the National Trust place. I think we were equipped for either driving or eating¹ I was going to say that when we were in the restaurant it was very nice, it was a beautiful place and we were the youngest there, probably, apart from the few people who had brought children, and all the rest of the people were all sort of geriatrics, older than us, but they were all sort of dressed, not just to go out to lunch, as though they were going to go out walking. And there, they weren't interested in exercise, as such, they were interested in having an enjoyable walk. And I would have enjoyed doing that, going there. It's not something I'd do normally but, this sort of mix-up between sport and exercise rather annoys me because I think exercise is a chore whereas sport,

if you actually like the activity, no matter what you call it, then you don't regard the exercise as the prime purpose, it's the enjoyment of the activity.

"I used to play a lot of badminton, competitive badminton, long time ago, I can't do it now my ankles would never stand it; but I used to be best at mixed doubles and the reason was it's a very sociable activity because you've got a male and female on each side and it's as much a social activity as the actual sport itself 'cause it is just very amusing and entertaining and it didn't matter who your partner was. Now to me that is mixing up exercise with a pleasant activity with other people. It's the social element. When I used to do a lot of shooting it was the social side of it. It means going out and going doing things that I'm interested in but it's mainly about meeting other people who want to do the same thing. Health clubs never give me that impression that it's about social activities. The impression I have is the sort of, you know, this fanatic trying to do, lifting weights or cycling. Now it might be a completely false impression but it's the one I have and I find it a big turn off. And also health clubs give me the idea that you go there and drink carrot juice, you know, or it's about beautician treatment which would be a compete turn off because it's about appearance rather than what you're like inside. So that's what puts me off it because it seems to be about the body beautiful rather than actually pleasure and happiness and enjoyment. It doesn't seem to me to be focussed on that. That's what turns me off.

"Pleasure and sport for the sake of taking part where it's not a chore it's a pleasure 'cause it's about meeting people and that's the main function of it and if you happen to be doing healthy exercise at the same time, that's actually even better but it's almost incidental if you're doing 'good' exercise.

"I think of health clubs as being full of fanatics all on weight machines and cycling and walking. Very selfish activities rather than a social activity. That's the impression I have. Works a treadmill anyway. I mean the only way I'd use something like that is if the doctor said 'you need to exercise, your hearts going to give out, you need to exercise so you've got to go and do these things', and I might do it because I have to but out of choice definitely not.

"I think people that exercise regularly are abnormal! Perhaps they've got more time than I have. If you've got a job a bit like mine where you're giving out all the time, so when you're not doing that you just want to switch off from anything that involves going and meeting lots of people or leaving the house and going out somewhere else again, I wouldn't want to do it. Perhaps it's about challenge. If you're not challenged by your job 'cause it's safe, physically sedentary and there's no challenge in the work. I mean challenges are relative and very personal, I mean it might be that they don't have a particular challenge that suits their mentality and physique, or their interests, so they want to go and do something out of work that they find relaxing that might be physically challenging, might be weight training or something.

"I used to know a bloke who was a builder, it's when I started a shooting club in Bilsley, and one of the chaps who was there wanted to run a weight training club, now he was a builder so every day he was doing lots of physical work but he was interested in body building so he ran a body building club on the same premises that I ran the shooting club. He was older than us, he was only little. At that time he was the best part of 50 wasn't he? I mean his wife didn't look the same but he's got the body of something like a 25 year old, it was incredible. Well the face of a 50 year old but the body of a 25 year old and he was incredibly fit and muscular. He wasn't a show-off, he wasn't a macho sort of guy, he was ever such a quiet, pleasant sort of bloke but he used to run this body-building, he used to do it for other people and enjoyed teaching it, he was good at it himself. But he did a very physical job 'cause he was a builder.

"As a general rule exercise is good for you, if you don't keep, if you don't exercise by living a normal life or trying to you actually make common ailments worse. But is that just psychological? You think it's doing you good so therefore you feel good 'cause you've done it.

"I don't know what the truth is. It's probably some exercise that is genuinely regarded as exercise. I wonder whether there's a sort of placebo effect, you know, that you could do exercise that wasn't really exercise but because you thought it was exercise you think it's doing you good so you feel good. Or you

feel better. I don't know. There are so many different opinions, I mean I've heard some, I'm sure she was a doctor on TV saying that in her opinion 20 minutes exercise a week was enough for anybody. That's a good excuse! These things come round in cycles. Eventually, probably all the things I do will be found to be good for you!

"If you overdo it, it means that you're not used to it so when I start doing building work I have to take it more easily now. I mean my brother used to do a lot of running, but he used to pound the pavements and it never did his joints much good did it? It wouldn't be good for my joints would it?

"I would go and do some exercise if I wasn't doing other things, but other things interest me far more. I belong to the local church, I do a lot for that, I play the guitar and I sing. Most of my exercise is mental. Giving out. And it's not pleasurable is it? I mean exercise, does it do you good because it's physically demanding so it does your heart and lungs good or that it actually ensures that you burn up the excess of food that I certainly eat. You know, in that sense exercise can be good for you but there's also exercise that does you good because it actually relaxes you and that might be an enjoyable exercise, going for a walk. It might not actually be physically very demanding, in other words, using up a lot of calories and actually ensuring that you improve your circulation and your muscles by exercising and unstiffening your joints, thinking of our age, but because you've enjoyed doing an activity that has been relaxing and pleasant, whether it be with other people or not, that sort of exercise; and there is mental exercise as well. So asking how much is enough exercise – it's what you need, you always think you ought to do more but you haven't got time. It going to depend upon the individual isn't it? I say I do enough exercise when I go to work anyway 'cause I'm on my feet al.l the time.

"I'm as unfit as most other people my age. I'm only going by my colleagues. There's that lovely card you can get: 'Lord if I cannot be slim, please make all my friends fatter than me!'"

Appendix F. Sample Coding

Grouped open codes	Group labels	Themes	Properties and dimensions
Not fitting in at a health club Being intimidated / not keeping up Health clubs aren't for me / not having the right attitude Not being technologically minded I can't be bothered Being too old to try something new	I wouldn't fit in at a health club	Comparing myself to others Negative	Being influenced to exercise ⟶ Being influenced NOT to exercise Enjoying the social aspect ⟶ Finding it lonely Preferring to exercise alone Being 'normal' ⟶ Being different – not fitting in - fitter than peers
Being jealous of others that exercise Being less fit than others my age Having physical conditions Being injured Not being able to keep up Feeling threatened by other exercisers	I'm different - inferior		Feeling encouraged ⟶ Feeling threatened ↓ Encouraging others

Being normal for my age
I'm okay as I am
Being as unfit as others my age
I don't understand 'fitness fanatics' – they're abnormal
Not my kind of people
	I'm normal		Health clubs are
			  Positive ⟶ Negative
			
			  For me ⟶ Not for me

Looking young I'm good for my age Being competitive Impressing others Being fitter than others	I'm superior	Positive	⟶ For younger people ⟶ For fanatics in Lycra Somewhere I fit in ⟶ Not my kind of place Sociable ⟶ Lonely

Sample paradigm models

A. Causal Conditions

- *Social identity*
  - *Who do I relate to?*
  - *Who do I want to be like?*

B. Phenomenon

WHERE DO I FIT IN?

- *Social identity*

C. Context
Peers

- *Active – inspiration or threat?*
  - admire or question?
- *Inactive – relate to or despair of?*
- *influences can be positive or negative*
- *but can also be indifferent if peer is not someone I relate to (reference group)*

D. Intervening Conditions

- *Family history of illness*
  - *Inspiration to avoid by either doing more or taking it easy*
- *Encouragement (or lack of) from peers*
  - *Verbal support*
  - *Physical support*

E. Action / Interaction Strategies

- *Compare myself with others*
  - *Same as others = 'NORMAL'*
  - *Not like others = 'DIFFERENT'*

- *How do others see me?*

F. Consequences

Am I happy with who I am like?

A. Causal Conditions	B. Phenomenon

▪ *Social identity*
     o *Where do I fit in?*
	⬭ *I'M NORMAL*
	
	What is 'normal'?
	    Perceptions – fitting in
	
	    ▪ *Physical*
	    ▪ *Emotional*
	    ▪ *Social*

C. Context	D. Intervening Conditions

▪ *I'm normal for my age*
▪ *I'm as unfit as others my age*
▪ *I'm okay as I am*
 	
    ⇩
 	
i.e. I don't have to / want to do anything different
I don't want to change
	▪ *Aging – positive or negative perceptions of*
	▪ *Illness / physical conditions*
	    ⇩
	    Changes with age
	▪ *Active or inactive peers*

E. Action / Interaction Strategies	F. Consequences
▪ *Compare myself with others* ▪ *Preferring to stay in the in-group* ▪ *Feeling uncomfortable in different situations*	*Acceptance of self?*

A. Causal Conditions

- *Social identity*
  - *Where do I fit in?*

B. Phenomenon

I'M DIFFERENT

What is 'normal'?

Superior   *Inferior*

C. Context

I'm different to those around me

Superior – fitter
       - look / feel younger

Inferior – less fit
       - can't keep up

D. Intervening Conditions →

- *Physical conditions / health problems*
- *Active / inactive peers*
- *Admiration / jealousy*
- *Perceptions of aging*
- *Ownership of health*

E. Action / Interaction Strategies

- *Compare myself with others*
- *Taking myself out of the in-group*

OR

- *Being taken (reluctantly) out of the in-group*

F. Consequences

Acceptance of self?
       - happily or reluctantly?

               (control issues,

Rejection of self?
       - wanting to change

Possible creation of new –in-group' so become 'normal' with new peers?

260

Appendix G. Each face of the exercise cube showing all axes and positioning of each (non)exerciser 'type'

Side A

Low desire to exercise

Side C

Aspiring exerciser   Established exerciser

High exercise behaviour

Reluctant exerciser

Side D

Positive exercise perception

Sides D - F

Side B

Negative exercise perception

Sides A - C

Side E

High desire to exercise

Side F

Procrastinator   Delegator

Low exercise behaviour

Indifferent

261