

0403063132



**The Role of Psychological Androgyny in Athletic Success:
A United Kingdom Perspective**

By

Roland Hegarty

A Doctoral Thesis

**Submitted in partial fulfilment of the requirements for the award of
Doctor of Philosophy of Loughborough University**

May 2010

By Roland Hegarty 2010

ABSTRACT

Past studies have shown that successful athletes are required to display a wide variety of behaviours to win races and register exceptional performances. The traditional position holds that athletics be regarded as an unequivocally masculine endeavour. This investigation postulated that it is the psychologically androgynous person – that is, one who endorses both masculine and feminine positive behaviours – who would possess the desired range of behaviours that lead to success in athleticism. Accordingly, male and female athletes of past and present success in Britain (n=90; [30m, 30f, 15M, 15F]), along with male and female non-athletes (n=90; [30m, 30f, 15M, 15F]) were surveyed using the SBSRI (Bem, 1974) to determine whether athletic success is relative to psychological androgyny or whether it qualifies as masculine. Four distinct studies informed the line of investigation.

Study one, consisting of three parts, predicted that an individual's ability to be a successful athlete will be enhanced to the extent he or she is able to exhibit appropriate androgynous behaviour. This received support. Four seemingly conclusive outcomes emerged: (a) successful athletes are more inclined to be androgynous individuals; (b) in terms of endorsing masculine and feminine characteristics the personality profiles of *both* successful male and female athletes tend to be remarkably similar; (c) androgynous qualities are to be considered more desirable for female athletes than for non-athletes; and (d) masculinity would appear to be a more meaningful, discriminatory dimension in female athletes than non-athletes. Although in this view, the female ex-athlete's androgynous influence is not absent, this was unexpected. Over time the focus of androgyny would be expected to coincide with a female's athletic performance, consistent with the view of androgyny theory as a framework for success.

Therefore studies two to four's tentative theory, which was supported, predicted that the demands of athletics and social coercion will result in the differing connotations of androgyny for male and female athletes. Content analysis using the *Diction 5.0* software compared periodicals (*Athletics Weekly*) and women's magazines (*Woman's Own* and *Woman's Weekly*) over thirty years and exposed the ideological and social contradictions that problematise the business of athletic femininity for women. To facilitate

discussion, a self-appointed subdivision of male and female athletes ($n=12$; [3m, 3f, 3M, 3F], ages 18-62yrs, $M=37.92$) was taken for further investigation through means of semi-structured interviews. Results of this data provided evidence that: (a) the socialisation of femininity and masculinity for any given athlete develops androgynous preferences, roles and behaviours; (b) the roles of woman and successful athletes are seemingly compatible; (c) successful athletes classified as androgynous are more inclined towards masculine as compared to feminine characteristics; and (d) the androgynous athlete is more likely to be female at this time and therefore more likely to be successful. Recommendations for further research and implications are presented.

ACKNOWLEDGEMENTS

In the preparation of this thesis I am deeply indebted to those who contributed in so many ways. In particular I should like to acknowledge the debts that I owe to Dr. Bromley Kniveton for his sympathetic criticism and guidance; to Dr. Andrew Roberts' sound text and commentary to revise, augment and above all rely on; and to the critical work of Nigel Robert-Powis. I am also extremely grateful to Julia and Ann Morris chief editors and Heather my sister and confidant for her encouraging and knowledgeable advice at every stage, and Dr. Jayne Stake for generously allowing me to read her protégés work in proof. The present thesis is deeply enriched by their painstaking scholarship.

At University College Birmingham, my immediate debts are to colleagues for pertinent comments and former students for the occasionally impertinent remarks which have made me reconsider my views. I am particularly indebted to subject librarians Nick Betts and Manjeet Dhillon, design and IT technicians John Crawford and Jason Clifford, ITSU technicians Mohammed Yusin and Patricia Bell, reprographer Nick West and secretary Julie Ewer each of whom contributed something invaluable. With the aid of a Research and Staff Development Fund from the College, I have been fortunate to have a perennial source of monetary relief, to this end, I thank you.

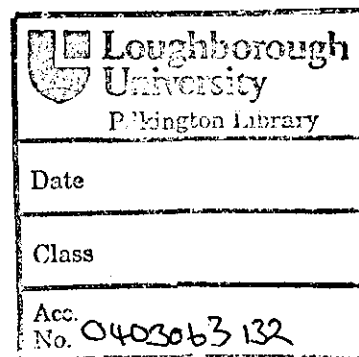
I'm grateful to Dr. Roderick Hart and Dr. Craig Carroll for their help in employing *Diction 5.0* and Elisabeth Cammell and Susan Harvey, from World Athletics and Sporting Publishing Ltd. and International Publishing Corporation Ltd. respectively, for their assistance in obtaining information about athletic annals and feminine publications. I would also like to thank the National Union of Track Statistics (NUTS), UK Athletics and British Athletics for their helpful suggestions and bibliographical reference. My deepest thanks go to the British Athletics Clubs, Honorary Treasurers, Club Secretaries, head coaches and most importantly the athletes who made it all possible – I am indebted.

It is impossible to imagine my worthy labours without thinking of those who instilled and nurtured it: thanks to my beloved parents, Ernest and Sophie Hegarty. Thanks

also go to my siblings, who uncomplainingly and repeatedly welcomed the 'prodigal son'. Lastly (without wrong last to be named) my girlfriend, Kerry Thake, has supplied the constant and practical support, love and patience without which this thesis would not have been completed. In gratitude I dedicate the thesis to those closest, and present it to the general view with this testimony:

To those who report I was a long time in finishing, I confess I do not write with a goose-quill, winged with two feathers, and if they will needs make it my fault, I must answer them with that of Euripides to Alcestides, a tragic writer: Alcestides objecting that Euripides had only in three days composed three verses, whereas himself had written three hundred: 'Thou tell'st truth', (quoth he), 'but here's the difference: thine shall only be read for three days, whereas mine shall continue three ages'.

Extract adapted from John Webster: *The White Devil*,



Bail o Dhia ar an Obair

CONTENTS

	Abstract	2
	Acknowledgments	4
	Contents Page	6
	List of Figures and Graphs	10
	List of Tables	11
	Introduction	12
Chapter 1	Issues of Sport Performance and Gender Differences:	
	Women and Masculine Sports: Androgyny Qualified	16
	Androgyny and Self: A female Intuition	24
	Androgyny Aside: An External Focus	29
Chapter 2	Androgyny: Background and Concept:	
	Psychological Androgyny: A Literature Search	38
	Psychological Androgyny: An Appreciation	41
	The issues restated	53
	Etymological Summary	56
	Research on Androgyny: A Sporting Rationale	59
	Research critique	60
	Androgyny as an ideal	64
	Androgyny Research in Context	67
	Androgyny as – Personality Trait Theory	70
	A critical consideration of the evidence	76
	Androgyny as a Unitary Concept	79
	Towards a Theoretical Framework	85
	Androgyny in Context: A Summary	87
Chapter 3	Study One Part (a):	
	Psychological Androgyny: A Current Athlete Perspective	89
	Hypotheses	89
	Participants	91
	Sample Size and Approach	99

	Questionnaire Design and Construction	101
	Procedure for Questionnaire Administration	103
	Pilot Sample	105
	Results	106
	Discussion (a)	110
Chapter 4	Study One Part (b):	
	Psychological Androgyny: An Ex-athlete Perspective	112
	Hypotheses	113
	Participants	114
	Sample Size and Approach	115
	Questionnaire Design and Construction	116
	Procedure for Questionnaire Administration	118
	Results	119
	Discussion (b)	123
	General Discussion (a & b)	125
Chapter 5	Study One Part (c):	
	Psychological Androgyny: A Question of Femininity	133
	Hypotheses	135
	Non-athlete Participants	136
	Sample Size and Approach	137
	Questionnaire Design	140
	Results	141
	General Results	144
	Discussion (c)	148
	Androgyny in Focus: A Summary	152
Chapter 6	Study Two:	
	Psychological Androgyny: A Question of Social Construction	156
	Hypotheses	157
	Materials	158

	Sampling Size and Approach	162
	Diction 5.0: The Text Analysis Programme	164
	Results	168
	Discussion	175
Chapter 7	Study Three:	
	Psychological Androgyny: A Picture of Social Construction	185
	Hypotheses	185
	Materials	187
	Sampling Size and Approach	188
	Methods of Measurement and Analysis	189
	Results	193
	Discussion	196
Chapter 8	Study Four:	
	Psychological Androgyny: The Contributions of Androgyny	202
	Hypotheses	202
	Participants	204
	Sampling Size and Approach	205
	Interview Themes	206
	Interview Analysis Technique	209
	Procedure for Interview Administration	213
	Pilot Sample	215
	Interview Narratives and Interpretation	216
	Athleticism Discerned	216
	Role (In)compatibility	219
	Evidence of Convergence	222
	Discussion	227
	Theoretical Conclusion	232
Chapter 9	Conclusions and Recommendations	234
	References	245

Appendices	Appendix 1.0: Bibliographic Essay	295
	Appendix 1.1: Falsification: Introduced and Applied	298
	Appendix 1.2: The Nature of Inquiry	300
	Appendix 1.3: Questionnaire	325
	Appendix 1.4: Authenticating, Scoring and Classifying the SBSRI	327
	Appendix 1.5: Content Analysis: Meaning and Definition	336
	Appendix 1.6: Literature Sample	341
	Appendix 1.7: SPAMS Scores	343
	Appendix 1.8: Pictures	347
	Appendix 1.9: Interview Validity and Objectivity	351
	Appendix 2.0: Interview Transcript	361

LIST OF FIGURES AND GRAPHS

Figure 1.0	Factors Affecting the Gender Gap _____	36
Figure 1.1	Etymological Summary _____	56
Figure 1.2	Characteristics of Androgynous Persons _____	65
Figure 1.3	Androgyny Research in Context _____	67
Figure 1.4	Diction 5.0: A Definition of, and Formula used _____	166
Figure 1.5	Diction 5.0 Categorises as Gender Representation _____	169
Figure 1.6	Pictorial Sample _____	188
Figure 1.7	SPAMS _____	191
Figure 1.8	Meaning Condensation Technique _____	210
Graph 1	Means of Self-reported Masculinity/Instrumentality and Femininity/Expressiveness on the SBSRI _____	145

LIST OF TABLES

Table 1	Current Male Athletes score means _____	106
Table 2	Current Female Athletes score means _____	107
Table 3	Male Personal Fulfilment as an Indicator of Athletic _____	107
Table 4	Female Personal Fulfilment as an Indicator of Athletic _____	108
Table 5	Mean Sex-roles scores as Percentages _____	109
Table 6	Male Ex-Athletes score means for Instrumentality _____	119
Table 7	Female Ex-Athletes score means for Instrumentality _____	119
Table 8	Male Personal Fulfilment as an Indicator of Athletic _____	120
Table 9	Female Personal Fulfilment as an Indicator of Athletic _____	121
Table 10	Mean Sex-roles scores as Percentages _____	122
Table 11	Current Female Non-Athletes score means for Instrumentality _____	140
Table 12	1970s Female Non-Athletes score means for Instrumentality _____	141
Table 13	Current Male Non-Athletes score means for Instrumentality _____	141
Table 14	1970s Male Non-Athletes score means for Instrumentality _____	142
Table 15	Mean Sex-roles scores as Percentages _____	142
Table 16	Female Athletes (across eras) score means for Instrumentality _____	143
Table 17	Means of Self-reported Masculinity/Instrumentality _____	145
Table 18	Collective Mean Sex-roles scores as Percentages _____	146
Table 19	Insistence Scores _____	168
Table 20	Case Study I _____	170
Table 21	Case Study II _____	171
Table 22	Case Study III _____	171
Table 23	Case Study IV _____	172
Table 24	Case Study V _____	172
Table 25	Case Study VI _____	173
Table 26	Summarised SPAMS scores for Reviewed Publications _____	193

INTRODUCTION

The vast demands of athletics, its physiological and psychological pressures, the weight of expectation, the immediacy of problems, and the diversity, range and complexity of environmental contingencies have been widely reported in a number of studies (cf. Choi, 2000; Coakley and White, 1992; Dyer, 1982; Hakulinen, 1996; Hargreaves, 1994; Laine, 1996; Sailer and Seiler, 1996 amongst others). Throughout its history, masculinity has been regarded as naturally and inevitably more important to athletic challenges than has femininity (Figler and Whitaker, 1995) and it is unbecoming for women to indulge in certain activities (cf. Dyer, 1982; Griffin, 1987; Hall, 1988). This is not particularly enlightening. Sport, especially competitive athletics, is an achievement activity that demands instrumental, assertive behaviours.

Nonetheless, it is argued in this research that these challenges of athletics call for athletes whose behaviour exhibits flexibility and adaptability to the varied, and sometimes conflicting, circumstances they face; athletes in which 'masculinity' and 'femininity' were not unique to each sex but were shared by both, and athletes who did not share the view that athleticism was the solemn and periodic exaltation of masculinity (cf. Bem, 1974; Women's Sport Foundation, 1995; Yarnold, 1990). Spence and Helmreich (1978) claim that even in highly competitive sports, expressive behaviours might be advantageous. Creative, expressive actions might be the key to success for an athlete; supportive behaviours of teammates might be critical for an athletics team; and sensitivity to others might help an athlete communicate concerns. As Anshel, Porter and Quek (1998) reported, it would appear that femininity in athletes has a tendency to offer more emotion-focused coping strategies which can create more success. Essentially, the nature of athleticism asks whether it is the psychologically androgynous personality (Bem, 1974) who would best have available the desired range of positive behaviours needed to be a successful athlete. In brief, it is argued here that athletic success is the more likely consequence of androgyny rather than of gender.

To examine this assumption, four distinct, but overlapping studies are organised around the following concerns, in order: Study one part (a) an examination of the role

of psychological androgyny in the athletic success amongst current athletes; part (b) an analysis of androgyny and the performance of athletes across their careers was induced by surveying ex-athletes; part (c) is an authentication of whether athletes [particularly female] scored higher on the constructs of androgyny than non-athletes [namely female]. Study two, an analysis of literatures as representative characters through which the larger socio-cultural-political contexts in which the female and athlete have emerged. Study three an examination of the strategies applied in constructing gender relations in athletics as well as social contexts in the area of feminine images in print coverage. And, study four, an in-depth appreciation of how the construction of gender relations indicates the extent to which masculine and feminine traits co-exist in the sexes, at least in the athletic arena.

Study one parts (a), (b) and (c) generally explore the premise that an individual's ability to be a successful athlete will be enhanced by the extent to which he or she is able to exhibit appropriate androgynous behaviour. But what is the athletic type? What does androgyny mean to the successful athlete of today or yesteryears' society? How is the concept related to athletic performance of athletes across their career paths? More significantly, can it account for males' seemingly considerable statistical superiority over females and at the same time, females' relatively slow and erratically, but quite noticeable, improvement? Other researchers have suggested that to succeed in a clearly male-orientated environment (Women's Sport Foundation, 1995), such as athleticism, athletes need a high level of stereotypically masculine characteristics (cf. Mills and Bohanon, 1983; Colker and Widom, 1980; amongst others). Is it only male athletes who are optimally equipped for behavioural flexibility and corresponding adaptability to a variety, range and complexity of athletic contingencies? Others are not so sure. Researchers Kane, (1995), and Ward and Whipp, (1990) argue that many women routinely outperform men. Why is this? Do such variances of opinion remain, and if so why? Just what are the consequences, if any, of having an androgynous gender-role identity? How is it related to women in athletics? Is androgyny relative to all femininity not just sportswomen? This view is not shared on the whole by androgyny researchers (cf. Choi, 2000; Gill, 1994; Hall, 1981). Thus may it be simply that women are becoming more male? This too has been questioned. Is androgyny

truly an ideal? It would seem the questions of how and why men and women become androgynous are open for discussion.

Consequently, the series of studies two, three and four analyse the theory that the demands of athletics and social coercion will result in the differing connotations of androgyny for male and female athletes. This led to the following additional concerns: Why is athletics depicted to be a male domain? Why is there such a notable lack of female participation and recognition in this area? And, why are these imbalances underscored by disproportionate media coverage, especially print coverage? At this point, the specific questions of how these women were represented, and what sorts of textual strategies were applied in constructing gender relations informed the discussion. In particular, how does a quality and popular athletic magazine report female athletes and performance? How has athletics being regarded as an unequivocally masculine endeavour been cultivated by print of the time? By comparison, do contemporary women's magazines address their audiences' differently from magazines of the 1970s? In what ways have their messages altered or stayed the same in the context of a changing society? And, what does this suggest about women's role in society – and possibly in athletic concerns? Much has been written about this asymmetry, but few authors, if any, have appreciated the connections between gender and androgynous identities and their implications for athletic success.

In the area of feminine images in magazine coverage, are sportswomen trivialised/marginalised by sexual objectification and framed in terms of their 'maleness'? What role do women play in their current portrayal in the media? Are women portrayed as wife, mother or housekeeper? Are women represented according to cultural stereotypes that associate femininity with a 'cult of conformity'? How effective in changing the way women are portrayed has the influence of time proved to be? What information do images and text in women's publications communicate? Collectively and cumulatively as will be discussed in the closing study, how have these patterns of asymmetry and exclusion perpetuated the differing connotations of androgyny for male and female athletes? And, what are the values of sex roles that underlie androgyny? These questions form the focus of this thesis.

In summary, all the studies explore some of the theoretical debates in gender and androgyny applied to the female athlete. Each study in the research is informed to some extent by feminist thought. The early theoretical debates about androgyny give way to a collective triad of empirical studies using Bem's Sex Role Inventory (SBSRI). In this study one parts (a), (b) and (c) provide for a comprehensive overview of the concept of androgyny tracing its development and application to athletics. Throughout this study, the concept of androgyny and its related assumptions challenge the traditional axiom of athletic involvement for the sexes. The subsequent two studies of the media both consider the representation of women in athletic and social contexts. Both studies provide empirical evidence, one drawing on the textual coverage of athletic periodicals and women's publications, and the other, a pictorial analysis of the print media coverage. Both argue that media images and text representations contribute to wider gendered relations. The final study explores the impact of socialisation on the connotation of androgyny, and traces the developing individualised strands of androgynous thought for the sexes and their subsequent athletic prowess.

So, several things are of interest to this research. First, is the key theoretical perspectives related to the concept of androgyny, and its contextual relevance specifically to the athletic arena. Second, the gendered nature of society that deems qualities of athleticism to be considered more desirable for males than females in this time of changing definitions of femininity and masculinity. Third, the process of, characteristics associated with, and likelihood of becoming androgynous for both sexes. Fourth, is how the media have constructed both the gendered representation of women and their marginalisation within it, as opposed to any real personality or individual differences. Fifth, the various senses in which athletes may be androgynous and seen as an ideal.

In sum then, this thesis explores the athletic context for gender disparity, its validity, and origins, and proposes psychological androgyny, what it means and what can be said for and against it, as likely resolve.

CHAPTER 1 – ISSUE OF SPORT PERFORMANCE AND GENDER DIFFERENCES

WOMEN AND MASCULINE SPORTS: ANDROGYNY QUALIFIED

Within the social sciences, and particularly psychology, there is a long history of assuming that so-called cross-sex behaviours and preferences (e.g. athleticism among females) were indicators of emotional disturbance or sexual deviation (Spence, Deaux, and Helmreich, 1985). The orthodox stereotype of athletic masculinity is active, muscular, and competitive, whereas that of femininity is passive, non-muscular and largely non-competitive (Bem, 1974; Cook, 1985). The male role encompasses the strong and successful athlete; the female role encompasses the weak and retiring non-athlete. Accordingly, when a female chose to be active, muscular and competitive and to engage in stereotypic masculinity she was likely to experience inner conflict about appropriating a male role. Females who wished to participate in sport and remain feminine faced great stress: significant achievement in a sporting context not only tended to detract from, rather than enhance, their feminine image, but also tended to place them outside the social mainstream (Dyer, 1982). One aspect of this is that behaving in a manner that is incongruous with archetypal heterosexual femininity may lead to ostracisation and the females' femininity being questioned (Griffin, 1987; Hall, 1988). An ardent sportswoman is often thought of as not completely feminine (Dyer, 1982). As a result, more females adhered to the heterosexual femininity label, while masculinity perpetuated. Further evidence demonstrates that at a psychological level, stereotypic femininity traits are assumed as the 'weaker', whereas masculinity traits are most frequently cited as sources of psychological adjustment (cf. Bassoff and Glass, 1982; Pyke, 1985; Taylor and Hall, 1982). In other words, it is psychological masculinity – not femininity – that is associated with the mental capacity necessary for athletic performance. Conversely, Jackson and Marsh's (1986) research shows that female athletes apparently do not experience much role conflict, and they can be more masculine without being less feminine. Their findings strongly refute the popular myth that female athletes are not, and cannot be, feminine. Moreover, the gender approach tended to ignore the fact that athletes may share overlapping instrumental (M) and expressive (F) traits in psychological characteristics and that the balance between

masculine and feminine traits possibly outweighs any indifference (Cook, 1985; Griffin, 1991). Within the field of personality psychology, Bem (1974), Spence and Helmreich (1978), and others have argued that it is possible for a person to express both masculine and feminine qualities and in doing so, enjoy healthier psychological functioning (cf. Bem, 1974, 1975, 1978; Helgeson, 1994; Spence, et al, 1975). As such, the points of contact between instrumental and expressive traits have evolved with mutual benefits for both which are quite perceptible and their relationships are very compatible. Hence, the term 'psychological androgyny' has been coined to better comprehend the relationship between personality traits and psychological functioning. The idea that an androgynous or 'blended' personality might provide an alternative approach to gender-typed categorisation compels this research to reject the conventional assumption that sources of psychological adjustment and the fabric of societal value necessarily imply is masculinity. Indeed, it was found that personality balance would induce enhanced physical performance (Dyer, 1982). Therefore, is the successful athlete not androgynous, displaying both masculinity and instrumentality and femininity and expressiveness?

But, of course, women are biologically different to men. And, sport (particularly the athletic arena, where the dichotomy between masculinity and femininity is greatest) has been accepted as a particularly dynamic site for the construction and affirmation of gender identity based traditionally on moral and biological determinism (Hargreaves, 1993). Biological determinism argues that inherent sex differences are immutable, natural and universal (Griffin, 1991). Biological determinist theories usually ally themselves with the status quo, and any attempts to change patterns of behaviour are then assumed to be 'going against nature' (Griffin, 1991). This philosophy of disparity has allowed its proponents (i.e. Winter, 1979; Wood, 1980; Wymer, 1949) to ground their arguments in a conviction of biological inferiority, which has then been employed to justify the maintenance of male domination of sporting arena. On the one hand, it has commonly been argued that competitive sports are primarily suited to men because they have 'inherent' athletic abilities (e.g. competitiveness, strength, stamina, courage, self-confidence, dominance and aggression). On the other hand, for decades women have been marked as the 'weaker' sex (Pirinen, 1997; Toohey and Veal, 2000). For

instance, restricting the number of competitive sports and events for women at the Olympics has usually been justified in terms of the supposedly 'intrinsic' limitations of their biological make-up (cf. Hakulinen, 1996; Hargreaves, 1994; Laine, 1989a, 1996; Lenskyj, 1986; Olofsson, 1989; Peyton and Pfister, 1989). More specifically, researchers Dyer (1982) and Koutedakis (1996) found both scientific and anecdotal evidence identifying skeletal composition, morphology, menstrual cycle, aerobic and anaerobic threshold and muscular strength as areas of inherent demarcation between the sexes (see also: Koutedakis and Sharp, 1991; Sanborn, et al, 1982; Schwartz, et al, 1981; Shangold, 1994; and Wells, 1985). For example, Koutedakis (1996) reported that a woman's heart volume is approximately 24% less than that of a man. This difference may explain why women were tailored specifically made programmes of events. Yet, despite anatomical and physiological differences between the sexes undeniably existing, males and females are more alike than different, other than the obvious differences in reproductive organs (cf. Dyer, 1982; Figler and Whitaker, 1995; Koutedakis, 1996). "Even where sex differences do exist, closer examination reveals a greater degree of variation *within* each sex than *between* them" (Griffin, 1991:44). Indeed, Koutedakis (1996) acknowledges that while the heart volume difference between males and females may be as high as 24%, in trained athletes this difference can be reduced to about 3%. Therefore, insofar as sports have traditionally been regarded as an unequivocally masculine endeavour in order to conform to some good natural order, or in order to foster and preserve distinct gender identities for reasons of biological opinion, evidence reveals no natural order, which is *prima facie* worthy of efforts toward its preservation. Accordingly, the antiandrogynist, or 'vive la difference' ideal of gender identification is rejected.

The sport gender divide may have been even further exacerbated by medical opinion, which upheld that vigorous physical activity, while acceptable for men, was actually dangerous for women, who were too frail to participate in competitive athletics (Cashmore, 2002; Lenskyj, 1986). It was claimed that emphasis on games and athletics was likely to do irreparable damage to adolescent sportswomen (Dyhouse, 1976) – a position that was prevalent for a long time. Toohey and Veal, (2000) note that the use of medical reports was a reaffirmation of the popular nineteenth century theory of

constitutional overstrain, urging caution about the type and amount of exercise, with a scientific justification limiting women's participation in track and field athletics. Medical accounts of the female constitution directed attention to the physiological vulnerability of the woman's menstrual status. For example, Koutedakis (1996) affirms there is some anecdotal evidence whereby many sportswomen have a threshold body fat, usually around 12-16%, below which, they tend to stop menstruating. This so-called sports amenorrhea is biochemically associated with low levels of blood oestrogen, which in turn are related to bone calcium losses. Such calcium losses may cause the condition known as osteoporosis, which is normally linked with an increase in stress fractures. It has been demonstrated that amenorrheic runners are thinner, lose more weight, and associate more stress with exercise compared to runners without menstrual irregularities (Schwartz, et al., 1981). As a result, female athletes are generally perceived to be physiologically inferior to their male counterparts based on medical opinion. However, it is very difficult to determine whether menstrual dysfunction is indeed related to exercise or to pathological conditions, and as such the hypothesis of a minimal percentage of body fat for regular menstrual cycles remains unproven (Shangold, 1994). It is also arguable that medical opinion may have been rudimentary and extemporaneous, rather than clinical. Over time such medical antithesis gradually subsumed a qualitatively different image connected with the notion of 'medically prescribed exercise', to enhance the health of women (Hargreaves, 1993). Only exercise of a suitable kind, in moderation, without overindulgence or risk of strain was considered to enhance the health of women and their menstrual status. In other words, there was a unity of the medical and moral opinions concerning female exercise and athletics. As part of this process women were partly accepted in the competitive arena (Hargreaves, 1994; Koutedakis, 1996) but were allowed to participate only in five athletic events, the longest of which was the 800 metres. Although there has been a mind set change within the body of medical opinion some critics (Jennings, 1996; Sheil, 1998) believe that women's participation was only tokenistic and should be more inclusive. Be that as it may, women's participation in the traditionally all-male competitive arena was symbolic of a process of adjustment and accommodation (Hargreaves, 1994; Toohey and Veal, 2000). Generally speaking, arguments that female athletes are medically unsuited to intense physical training or

sport competition have been shown to be unconvincing. There is no conclusive evidence that competitive sport is any more dangerous for females than for males (Figler and Whitaker, 1995). Some conditions such as menstrual irregularities (for example amenorrhea) have been associated with strenuous physical activity, although these symptoms are reversible (Figler and Whitaker, 1995). There would, on these grounds appear to be no apparent medical need for gender segregation.

Another strategy for devaluing women's involvement is via insinuations that previous athletic accounts exonerate male dominance in performance measures across all field and track events. This is perhaps most pronounced in the sprints, particularly the 100 metres. In the 1952 Helsinki Olympic Games¹ fully automated timing to the hundredth of a second was initiated and accordingly provides an avenue for legitimate contrast. E. McDonald-Bailey raced to a British record in 10.65 seconds, while Heather Young recorded 12.57 seconds in the female event. The actual performance differential between the men and women's British records was 15.28 per cent². Today, the men's British record for the 100 metres is held by Linford Christie, who recorded 9.87 seconds in Stuttgart, Germany, running in excess of 30mph to cover the distance (Matthews, 2002). By comparison, the female British record is held by Andrea Lynch, who was timed at 10.9 seconds in Wichita, America (Matthews, 2002). This signifies a considerable statistical superiority over women. At present, everything seems clear-cut and unambiguous, but the position and performance of women in athletics today is very different from that portrayed by these statistics. Now, the actual performance differential for the respective British records is 9.45 per cent, which illustrates the relative improvement of women's athletics to their male counterparts. This represents a performance differential decline by over a third in the culmination of a little over fifty years of competition. Significantly, as Toohey and Veal (2000) observe, the differences between women and men in terms of performance measures are relatively minor and the gap is closing. During the twentieth century women's athletic performances have improved more than males' (Dyer, 1982; Simri, 1977). Indeed, when the actual

¹ Many statisticians (i.e. National Union of Track Statisticians) consider all performances prior to this date as notable performances rather than reliable records, with allowance for possible wind assistance, and inconsistent methods of starting and timing.

² Differences are expressed as a percent by which male speed exceeds female.

performance differential between Young's and Lynch's times is calculated, a 13.29 per cent improvement is evidenced compared to a 7.33 per cent improvement between McDonald-Bailey and Christie. This is astonishingly in contrast with current beliefs regarding women's athletic prowess. Dyer (1982) who claims women have more than halved the deficit in their athletic performances compared to men further verifies this. Similarly, Ward and Whipp (1990) found that the decade-by-decade improvement rate for women in the mean running velocity was more than double that for men (approx. 1.5 vs. approx. 0.7 m/min/decade). Were these current trends to continue, then early in the 21st century the differences in running speed between the two sexes will have almost disappeared (Ward and Whipp, 1990). Beyond that, the trend implies superior running performance by women. Historically then, in athletics, it appears that norms and standards are based on male performance, consequently females' athletic achievements are judged in terms of their otherness (Hakulinen, 1996; Hargreaves, 1994). Yet, research has raised serious doubts about, if not refuted, the commonly held and taken-for-granted assumptions concerning performance measures as a basis for gender disparity. Therefore the conflict of performance differences, giving men a very considerable statistical superiority over women, is repudiated.

At present, then, there is a pronounced paradox in the world of athletics. On the one hand, research informs that women cannot, should not and will not compete with men with any expectations of success in athletics (Dyer, 1982; Pirinen, 1997; Toohey and Veal, 2000). There are alleged biological (cf. Hakulinen, 1996; Hargreaves, 1994; Laine, 1989a, 1996), physiological (cf. Koutedakis, 1996; Shangold, 1994; Wells, 1985) and psychological (Basso and Glass, 1982; Pyke, 1985) shortcomings of women compared to men, leading to the belief, still far from dead, that women will positively harm themselves by competing in some athletic events (Cashmore, 2002; Dyhouse, 1976). There are assertions that to train for, and compete in, many events is unfeminine, and will result in musclebound bodies devoid of sexual attractiveness and give rise to emotional disturbance and sexual deviation (Dyer, 1982; Spence, Deaux, and Helmreich, 1985). On the other hand, women have, after many years of agitation, pleading and campaigning (Hargreaves, 1994), their own athletic competitions and statistical analysis, where appropriate, suggests that their performance will approach,

equal, or exceed men in the not too distant future (Matthews, 2002; Ward and Whipp, 1990).

Furthermore, women are now competing in many events that, hitherto, were closed to them for fear of irreparable physical and psychological damage, or even, to protect the embodiment of hegemonic masculinity (Griffin, 1991; Dyer, 1982). In doing so, female athletes have dispelled the almost universal belief that they perform at an inferior level and contest the preference for maleness over femaleness insofar as it was accounted for by success and not the supposed frailty of femininity. More importantly, it challenges the traditionally held assumption of the weak and fragile woman who is supposedly incapable of strenuous physical or mental effort. This wilting figure developed in ignorance of many of the true biological and physiological differences between the sexes. It overemphasised some of the differences which do exist (Figler and Whitaker, 1995) and is based on quite unwarranted assumptions about some supposed and seemingly obvious biological differences which, in reality, are nothing of the kind (Koutedakis, 1996). Nonetheless, the shortcomings of the biological belief were in congruity with traditional personality theory, termed 'trait' assumption, that an individual's role should depict archetypal heterosexual masculinity and femininity. The masculine role, then, includes those behaviours commonly expected of males (Heilbrun, 1981) and reflects the active, muscular and competitive athlete (Bem, 1974; Cook, 1985). Femininity refers to behaviours stereotypically expected of females (Heilbrun, 1981) and is oriented towards the passive, non-muscular and largely non-competitive athlete (Bem, 1974; Cook, 1985). Assuming, that athletic masculinity is indeed perceived as more valuable than athletic femininity, then the pattern of cross-behavioural avoidance appears to constrict the athletes' instrumental and expressive functioning, as women's athletic performance differential is superior (cf. Dyer, 1982; Matthews, 2002; Simri, 1977; Ward and Whipp, 1990). The debilitating effects of sex-role stereotyping led to the conceptualisation of psychological androgyny (Bem, 1974; Spence, 1974), a term used to denote the presence of both masculine and feminine qualities in an individual. Androgyny theory contended that athletes may share overlapping instrumental and expressive traits and this could well compensate for any indifference (Cook, 1985; Griffin, 1991). Research

also indicated that androgynous athletes, as compared to non-androgynous athletes, are psychologically better adjusted (cf. Bem, 1974, 1975, 1978; Helgeson, 1994; Spence, et al, 1975). What all this tells us, is that, psychological androgyny can often supplement relatively moderate physical and physiological endowments, meaning some athletes can win races and turn in performances of which they would not normally be thought capable. Therefore are successful athletes more likely to be androgynous individuals?

ANDROGYNY AND SELF: A FEMALE INTUITION

While androgyny's formulation is useful it leaves an important question unanswered: how does psychological androgyny fit into a framework for analysing success? It may seem logical to conclude that women with muscles, demonstrating strength, speed and agility are more consistent with traditional notions of masculinity. Thus, a diminishing of visible differences weakens gender boundaries, as well as the power that the masculine hegemony holds in a patriarchal society (Choi, 2000). Does this therefore emphasise the debilitating effects of gender-role stereotyping and communicate the necessary construction of psychological androgyny? Cockerill and Hardy (1987) argue ideologies of psychological adjustment are likely to be influential but it is not only, or indeed simply, the use of androgyny. Decisions about athletic participation or indeed non-participation are the result of a number of negotiations that take place within the individual's life and sociocultural context, which include personal goals (i.e. intrinsic, extrinsic, and amotivation), self-identities (which includes how physicality is perceived and experienced) and self-perceptions (feelings of personal importance or synthesis with self) (Coakley and White, 1992). Choi (2000) and Hargreaves (1994) also claim that for women, athletic participation had less opportunity, resources and encouragement to develop.

Martens and Webber (2002) believe assessing intrinsic (i.e. enjoyment) and extrinsic (i.e. rewards) motivation in athletic settings is important, because these constructs seem to be directly related to intensity of participation and persistence of effort. In turn, intensity of participation and persistence of effort should influence the quality of an athlete's performance. With the historical and contemporary relationship between athletics and gender, athletic participation has become the solemn and periodic exaltation of masculinity (Women's Sports Foundation, 1995). In contrast, women's involvement was seen as unimportant, anomalous and unaesthetic (Hargreaves, 1994; Scruton and Flintoff, 2002). There was, in other words, little recognition of the female athlete (Choi, 2000; Dyer, 1982). Clearly, from such a perspective, levels of intrinsic and extrinsic motivation are abstract characters of masculinity; we know motivation only in relation to men (Hall, 1988). Yet, athletic women are now equalling and surpassing records previously set by men. Indeed evidence exists which shows women

routinely outperform many men, and in some cases, women outperform most – if not all – men in a variety of events, for example long middle distances, high jump and long jump (Dyer, 1982; Griffin, 1991; Kane, 1995). But is this success attributable to motivation? According to Kremer et al, (2003) ‘barriers to participation’ merely heightened the motivation to succeed and – drawing from McClelland and Atkinson’s (1960) theory of achievement motivation – the motive for female athletes to succeed is greater than any fear of failure. Ironically, then, the dominant historical conjectures surrounding athletic masculinity have served mostly to motivate hegemonic femininity (Krane, 1999; Lenskyi, 1994). Presumably, therefore, intensity of participation and persistence of effort conform to the motivational incentive, and quality of performance is enhanced as noted by Martens and Webber (2002).

Of course there may be another reason. Furnham and Greaves (1994) found women were more likely than men to cite athletics for weight control, altering body shape, attractiveness and health. In other words, women are more concerned with body image. Researchers have argued that women who exercise experience positive changes in body image and self-concept (Furnham and Greaves, 1994). This may be because exercise contributes to a slimmer, more toned body that is associated with youth, control and success. It is also likely that physical mastery increases self-esteem (feelings of general worth and self-confidence) (Grogan, 1999; Rosenberg, 1979). Therefore female athletes feel more positive towards their bodies, and as a result perceive their participation in athletics as satisfying and rewarding (Grogan, 1999). But is it a measure of success? Ironically, St Martin and Gavey, (1996) argue that such compulsive heterosexuality is in conflict with feminist ideologies and perpetuates cultural expectations of hegemonic masculinity and female subordination, by ensuring that they put their energies into maintaining body image. Such sentiment echoes Morgan’s (1991) view that, although women feel that they are making a free and informed choice, they are not really free to make a genuine choice because of patriarchal cultural pressures on them; that, although women may say that they are creating a new identity for themselves, they are really conforming to traditional (male-dominated) ideologies of how women’s bodies should look. And, any woman who defies the traditional ideologies of the female body image (as denoted by males), risks

the threat of ostracisation and of her femininity being questioned (cf. Blinde and Taub, 1992; Griffin, 1992; Krane, 1997a; Veri, 1999). Is this true choice? Initially, the athlete lesbian label was an effective tool to control women's sport, thereby weakening the threat to patriarchy. However, the athletic image of femininity has slowly become the highly desirable body beautiful (Bordo, 1990) to the extent that, the perfect, healthy body is not just thin, it is firm, well toned and sexy (Hall, 1996). There is significant potential, therefore, for women's participation in athletic activity to be influenced by this modern day body beautiful (see Biddle, 1995). It would appear that health and thinness have become synonymous, with athletic exercise being construed as a way to achieve this. Thus, body image related weight loss has become equated with health; so is it this that provides the incentive to succeed in athletics?

A related concern is the contribution of cognisant image – a term used to refer to a person's concept of self or self-perception. Because of the masculine culture of sport and archetypal femininity, women have had reduced opportunities to develop athletic skills. Not surprisingly, they also have less confidence in their athletic abilities than men (Feltz, et al, 1989; George, 1994). As Morris (1974 – cited in Giddens 1997) observed, the more a woman is treated with indifference, the more indifferent the woman becomes. If a woman is perceived incompetent at athletic skills, or athletic activity (for biological, medical or other reasons), women find themselves becoming incompetent (Morris, 1974). Because confidence and perceived competence have been found to predict athletic participation (Eccles and Harold, 1991; Coakley and White, 1992), this suggests that if the task is considered masculine (or not associated with the feminine domain) and if women perceive themselves as unable to master these tasks, they may never attempt to do them (cf. Bandura, 1977; Betz and Hackett, 1981; Lirgg, et al, 1996). This is supported by research that shows self-perceived ability (self-efficacy) to perform tasks is a determinant of task choice (Betz and Hackett, 1981, 1983). But how far reaching are the effects of low self-efficacy? Research suggests that it has a significant impact on performance. Theoretically, self-efficacy can serve as a guiding force for behaviour intended to overcome performance obstacles (Gist and Mitchell, 1991). Some researchers believe that self-efficacy and performance have a cyclical relationship. High self-efficacy facilitates performance, and successful

performance nurtures self-efficacy (Gist and Mitchell, 1992; Mathieu, Martineau and Tannenbaum, 1993). Thus, raising self-efficacy has practical consequences for the performance of athletes (male *and female*) in sport. In short, fostering more favourable levels of self-efficacy may encourage women to take on the challenging tasks that are so important in athletic success.

There appears to be another element, which, is often treated as part of women's subordinate athletic participation: sociocultural contexts, which have focused on opportunity, resources and encouragement. Dyer (1982) claims men's athletics in their modern form date back to the 1850s and were truly international by the time the Olympic Games were re-established in 1896. In contrast, women's athletics began around the turn of the twentieth century and have had international contests for little over fifty years (Dyer, 1982). But full recognition of women, their acceptance into major competitions and their participation over the whole range of athletic events open to men, have always been, and still are, tenaciously fought on grounds of biological, physiological and psychological inappropriateness (cf. Choi, 2000; Dyer, 1982; Hargreaves, 1994). Financial support and, hence, development of facilities and organisations has always been and still is at a much lower level than for men (Dyer, 1982; Toohey and Veal, 2000). The degree of central direction and encouragement has been, until recently, almost derisory at many levels if not ignored altogether (Welch and Costa, 1994). And the coaching and levels of expertise have always been much lower than that of men's athletics (Dyer, 1982). Yet, despite all this, women's performances are fast approaching those of men in many events (Griffin, 1991; Kane, 1995). Accompanying these improvements in performance have been improvements in the organisation, encouragement and financial support for women's athletics and a widening of opportunities through the number of events in which they can participate. Thus, as female athletes in the early twenty-first century gain increasing recognition, so too, do levels of success.

It would seem therefore, that today the female athlete is celebrated, but traditional notions of gender are still influencing how she is viewed and, indeed, how she might view herself (cf. Feltz, et al, 1989; George, 1994; Morgan, 1991; St Martin and Gavey,

1996). Women do possess athletic abilities, but a lack of support and training facilities has provided them insufficient opportunities to develop their skills (cf. Choi, 2000; Dyer, 1982; Hargreaves, 1994; Toohey and Veal, 2000; Welch and Costa, 1994). Women's full involvement in competitive athletics has also been justified by the argument that women can gain many enriching experiences, like an increase in self-efficacy (Bandura, 1977). Consistent with such observations, intrinsic and extrinsic motivation, body and cognisant image and sociocultural contexts, which have focused on opportunity, resources and encouragement are *all* predeterminants of athletic success. Interesting as these findings are they do not tell us which *one*, if any is central for achieving athletic success nor indeed if this is an exhaustive list which is representative of all female athletes. However, the findings do illustrate that a number of constructs are involved in achieving success and that androgyny cannot be considered alone in improving athletic performance. This research will therefore consider *all* constructs discussed with respect to psychological androgyny.

ANDROGYNY ASIDE: AN EXTERNAL FOCUS

By inference it would seem wholly reasonable that external factors would seemingly also have some bearing. It is important therefore to understand a wide variety of factors (e.g. wind, altitude, track surface, better nutrition, illegal drugs or changing social structures) that may have influenced gender performance improvement and difference over time, aside from those previously discussed internal influences and virtues of psychological androgyny.

Deriving from a wealth of possibilities, Radford (cited in Stafford, 1996) professes that more specific and better-focused training, together with longer competitive careers, a greater freedom to devote one's life to athletics, undoubtedly the use of drugs and a better knowledge of nutritional, medical and scientific techniques have all provided for athletic improvements over the decades for both sexes. Similarly Dick (1993) believes improvements in training coupled with sound medical and lifestyle management have led to the athlete's performance capacity being improved. Conversely, Bannister believes training alone, is not the answer. If athletes trained harder, then their immune systems would be depleted (cited in Stafford, 1996:6). Subsequent research summarised by Potts (cited in Stafford) indicated that this opinion and the assumptions it inferred were *bona fide*. First of all, there is a mechanical limit to the soft tissue in a human body, exceed this limit and there is an injury (Potts, as cited in Stafford). Beyond this, there is a contradiction in the bodily requirements. Every athlete is governed by just two variables: length of stride and rate of cadence, or rhythm (Borzov, cited in Stafford, 1996). In other words, a tall athlete will not possess the same cadence as a shorter athlete, but a shorter athlete will not possess the same length of stride. Of course this is true for athlete height differences within the same sex but most pronounced in athletes of opposite sexes. This is why scientists (Bannister; Potts; Borzov, cited in Stafford, 1996) believe that today's athlete of both sexes is physically close to a limit.

Alternatively, Bannister (cited in Stafford, 1996) cites the simple fact of a growing population, and the greater ability to discover athletic talent, as a probable answer. Bannister (cited in Stafford, 1996) associated that with millions of people in, for

example, the East African subcontinent having better diet, nutrition, training and facilities, performance has continued to improve; it boils down to the law of averages. All else being equal, the more people on Earth, the more likely it is to contribute.

Interestingly, population growth tends to widen the gender gap. This is because a society can effectively encourage women to have many babies or to compete in sports but not both (Sailer and Seiler, 1996). Nations that choose the former will grow much faster in population than those choosing the latter. To illustrate this point, one reason for the growth in Kenyan dominance of distance running and the decline of traditional European powers is that the ratio of Kenyans to Europeans has changed radically over recent decades (see: Amby Burfoot, *Runners World* August 1992). Until recently, Kenya had one of the highest birth rates in the world: in the early 1980s Kenya's birth-rate was 50.5 per 1000 people (Sailer and Seiler, 1996). In contrast, women's track superpower, East Germany's (before unification) birth-rate was only 14.5, and West Germany (another strong force in women's track) had the lowest birth-rate in the world among sizeable nations at 9.5 (Matthews, 2002; Reader's Digest, 1983). Societies like Kenya or Morocco (early 1980s birth-rate of 46.8) that encourage men to run and women to stay at home and have lots of babies (Kenyans, 1992) have come to dominate men's distance running (Sailer and Seiler, 1996). In contrast, countries like many in Europe that encourage women to run are shrinking in their share of the world population. On the broader social level, the decline of amateurism in the wake of professionalism has contributed to improved performances for both sexes for a variety of reasons, but most notably for athletes like Linford Christie and Merlene Ottey who now prolong their careers, continuing to compete at a high level into their 30s.

More contentiously, Sailer and Seiler (1996) imply the simplest and most powerful explanation for the improvement in athletic performance for both sexes is the illegal use of banned substances. Bannister (as cited in Stafford, 1996) claims it is impossible to discuss the use of illegal drugs in athletics without almost instantly treading on extremely controversial ground. For example, Sailer and Seiler (1996), recall when Carl Lewis was widely criticised in the press during the run-up to the 1988 Olympics for implying that rival Ben Johnson's enormous increase in musculature, personality

change from shy to surly, and yellow-tinged eyes suggested that he was taking steroids. After all, as was widely written, Johnson had passed every drug test he had ever taken, and Lewis must be a cad to dare impugn a great champion's honour. However, after Johnson failed his urine test following his world record 9.79sec. in the 100 metres some of Johnson's supporters argued that absolutely everybody takes steroids and the only thing Johnson did different was get caught. What is obscured by such a straightforward account is the difficulty in getting the straight story on doping in athletics and the disturbing realisation that it is common place. As Sailer and Seiler (1996) identify, nobody has the full story and those who do know a great deal say nothing, unless they get caught, at which point they have every incentive to claim everybody does it. It is therefore impossible to know the full impact of illegal drugs on improvements in performance, but it must be assumed the relative merits of such abuse far outweigh the negatives. This effect of this on gender performance differentials is unknown.

A more subtle improvement may be the result of better facilities, like faster tracks, and aeronautics; vastly superior aerodynamically designed clothing and running footwear in lightweight structure and reduced spike amplitude (Bearman, cited in Stafford, 1996). A hard track, for instance, improves speed for sprinters but decelerates speed for the distance runner (Sailer and Seiler, 1996). A major championship will therefore typically be biased toward either the sprinters or the distance runners. For example, the Atlanta Olympic organisers elected just about the hardest legally allowable track³, and they were duly rewarded with two sprint World Records, most notably American Michael Johnson's epochal 19.32 in the 200 metres. In contrast, Ethiopia's Haile Gebresellaise, the world record holder at the time in both the 5000 metres and the 10000 metres dropped out of the 5000metres, claiming his legs were too '*beaten up*' after winning the 10000 metres to attempt the double. At the same time, Bearman (as cited in Stafford, 1996) recognises the contribution revolutionary clothing has had on performance. The recent trend toward super-light and skin-tight long cycling-style shorts, and one-piece leotards, aerodynamically designed for speed are far removed from the basic white vest

³ The 1991 Tokyo World Championships featured an extremely hard track, which contributed to the remarkable feat of six men breaking 10.00 seconds in the celebrated men's 100 metre final. After the Championships, standards were adopted limiting the hardness of the track.

and shorts of yesteryear. Further, improvements may have been made following the introduction of electronic timing devices. Traditionally the use of manual stopwatches recorded race times to the tenth of a second. It was widely acknowledged that such a timing method usually meant a delay of 0.1 to 0.2 of a second. Furthermore, Sailer and Seiler (1996) report there might have been a tiny bias toward increasing the gender gap. For example, if a man ran the 100 metres in an actual time of 10.15 seconds, while a woman ran it in 11.15 seconds, and the hand times were 0.15 seconds less for each (10.0 vs. 11.0), then the gender gap would be 9.85% with electronic timing versus 10.0% with hand-timing. Therefore, reported times generally understated the actual times, particularly for female athletes. More recently, electronic timing devices records a time calculated within 1/100 of a second, making nonsense of that old-fashioned idea of hand-timing.

Along with the changes in the nature of aeronautics have come significant developments in climatic conditioning, which to some extent improved the degree of performance for both sexes. There are, of course, two consequences of rarefied air, which could significantly improve the times. Firstly, the more acceptable version: an athlete undergoes an altitude specific training programme, to improve VO_2 maximum capacity before competition. By way of example, it is a commonly held belief that athletes of East African origin, namely the Kenyans' and Ethiopians', track domination, particularly in the middle to long distances, is attributed to their natural rarefied entity (see Amby Burfoot, 1992). Alternatively, altitude assisted feats. For example, the Mexico City Olympics of 1968 were contested at 7347 feet and the 1972 Munich Games at 1700 feet. No other championship has been held to-date at over 1000 feet. The impact of the rarefied air was extremely evident in Mexico City, with world records being broken by the men in all five of the anaerobic flat races and relays from 100 metres through 400 metres, with the 400 metres and 4 x 100 metre records lasting into the late 1980s. On the other hand, the aerobic distance races were, as expected, far off record pace (see Sailer and Seiler, 1996). Performances at Mexico City were impressive but, after altitude adjustment (e.g. about 0.01 seconds or 0.1% in the 100m at 1000 feet altitude – see Hoffman, 2002), they fit nicely with the long-term

trend of the era toward better times. The performance differentiation of altitude on gender comparisons is unknown.

Sailer and Seiler (1996) also posit that wind turbulence has had an undeniable impact upon gender performances most notably in the 100 and 200 metres. In longer distances presumably and theoretically it might balance out. Unfortunately, as Mallon (1996) points out, in earlier meets, wind readings were not always recorded nor considered, hence recorded times may either be understated or overstated depending on wind direction. For the 100 metres, a rule of thumb is 0.1mps of wind has an effect of 0.01 on the overall time for both head and tailwind (see Heidenstrom, as cited in Sailer and Seiler, 1996). Wind adjustment is not as accurate for the 200 metres. The complicating problem is that the first half of the race is run around the curve, and so the impact of the wind depends not just on speed but direction. Sailer and Seiler (1996) simply advise using the same adjustments as for the 100 metres. Oddly enough, wind adjusted readings indicated that headwind has more of an effect than tailwind (Heidenstrom, as cited in Sailer and Seiler, 1996) and more significantly, wind has favoured male sprinters more than female sprinters (Sailer and Seiler, 1996). Hence, performance improvements may be understated.

Interestingly, Sailer and Seiler (1996) even suggest it is possible that temperature may impact upon performance, as athletes tend to dissipate heat differently in accord with climatic conditions. For example, during exercise, heat production is proportional to the individual's body weight, whereas heat loss (or gain) through the skin is proportional to body's surface area (Haymes, 1988). Under normal conditions therefore, and for the same relative exercise intensity, a small female athlete should produce less heat than her larger male counterpart. At the same time this female would dissipate heat faster through the skin than the male (Koutedakis, 1996). This means that the female competitor may have – at least in theory – an advantage over the generally larger male of equal ability during exercise in humid environments. In contrast, in a hot and dry environment, the smaller female will gain heat more rapidly from the environment than the larger males, thus this negatively affects her physical performance (Koutedakis, 1996).

Another feature, which may be thought to qualify for improvements in performance for both sexes is good nutrition and hydration practices. According to Nicholas (cited in Maughan, 2000) and Steinmuller (2004) amongst others, setting aside the influence of natural talent and appropriate training, correct nutrition during training and competition is one of the most important components in the formula for success. In a more pointed critique on sports nutrition, the International Olympic Committee (2003) tersely stated that the amount, composition and timing of food intake can profoundly affect athletic performance. This statement is unequivocal: what we eat and drink, how much we consume and when it is consumed can all have positive or negative effects on performance in training and in competition. In their view, good nutrition practice will help athletes train hard, recover quickly and adapt more effectively with less risk of illness and injury. They also pointed out that for the athlete striving to succeed this offers an avenue that cannot be ignored. Nonetheless for Woledge (cited in Stafford, 1996), when it comes to talking about nutrition and its role in enhancing performance, the argument is nothing new. Woledge (cited in Stafford, 1996) believes nutrition has long been recognised as a contributing factor. Alternatively, the intriguing issue is the advance in food science technology and dietary supplements which until recently were previously inconceivable (Woledge, cited in Stafford, 1996). For Woledge (cited in Stafford, 1996), recent progress in science and technology has paved the way for athletes to develop an individualised high-performance diet. Steinmuller (2004) too believes that it is only in the last five to ten years that research has begun to clarify nutrition needs for different athletes and supersede the rudimentary trial and error process. In other words, the conventional 'one size fits all' approach to nutrition, has been eschewed for a scientifically 'better fit'.

In contrast to these views Tulloh (2003) does not believe that diet has very much to do with athletic performance. 'You are what you eat' is much less true than 'you are what you do' (Tulloh, 2003). The proof of this, Tulloh (2003) claims, is that you can take a world championships field and find among it people of widely different cultures and enormous differences in their dietary habits, yet the differences in their performances

are measured in fractions of a percentage point. 'I don't think there is anything you can eat which can make you run faster', Tulloh (2003) adds. In agreement the International Olympic Committee (1991, 2003:56) stated: 'choosing the right foods will not make the mediocre performer into a world beater'. On the other hand, a poor choice of diet will certainly prevent all athletes from realising their full potential. Therefore, for the committed athlete, there seems little point in taking other aspects of performance seriously and neglecting diet (IOC, 1991, 2003). In sum then, sports performance can improve with attention to nutrition (Steinmuller, 2004).

Unfortunately, physical and metabolic differences between men and women generally have not been considered in the development of current dietary guidelines (Gabel, cited in Maughan, 2000). However, gender differences exist that could potentially affect a woman's energy and nutrient needs: upper body mass and strength (Miller, et al, 1993), endurance capacity in isometric and dynamic exercise at relatively low intensity (Maughan, et al, 1986), resting metabolic rate (Arciero, et al, 1993) and heart rate measured during different exercise modalities (Kravitz, et al, 1997). Rather than speculate on the effects, this research will consider the data for women in oneness with male subjects.

Figure 1.0 FACTORS AFFECTING THE GENDER GAP – SUMMARY

Factor	Impacted on Male Athletes?	Impacted on Female Athletes?	Scale of Impact?	Which Athletic Events Impacted?
Improvement in training.	Yes!	Yes!	Unknown.	Primarily sprints.
Growing population.	Yes!	Yes! – Societies can push both high fertility and elite female athletes.	Long-term trends – East African track dominance especially.	Middle to long distances, but also sprints to a lesser degree.
Decline of amateurism.	Yes!	Yes!	Professionalism has allowed for extended careers.	All events.
Illegal use of banned substances.	Yes!	Yes!	Unknown.	All events, but sprints more so.
Aerodynamically designed clothing.	Yes!	Yes!	Unknown.	Primarily sprints.
Track hardness	Yes!	Yes!	Unknown.	Primarily sprints.
Electronic timing devices.	Yes!	Yes! – Tiny bias toward increasing for female athletes.	0.1 to 0.2 of a second. (See discussion).	Primarily sprints.
Altitude training.	Yes!	Yes!	Long-term trends – East African track dominance especially.	Middle to long distances.
Altitude assisted feats.	Yes!	Yes!	0.01 seconds or 0.1% in the 100 metres at 1000ft altitude. (See discussion).	Favoured sprints.
Wind assistance.	Yes! – Evidence suggests slight wind advantage.	Yes!	0.01mps of wind has an effect of 0.01 on time. (See discussion).	Primarily the 100 metres and 200 metre sprints.
Responses to temperature.	Yes! – Males have a slight advantage if the conditions are hot and dry.	Yes! – Females have a slight advantage if the conditions are humid.	Random.	All events but middle to long distances more so.
Nutrition and hydration practices.	Yes! – Nutrition research more advanced on men.	Yes! – Less nutritional guidance.	Random. (See discussion).	All events.

Adapted from Sailer and Seiler (1996)

There are undoubtedly many other factors that influence the gender gaps and long-term performance trends for each sex. This is not an exhaustive list, nonetheless, it is not the intention of this thesis to provide an exhaustive list but merely an acknowledgement that psychological androgyny may not be alone in accounting for the gender performance improvement and difference over the past thirty years.

CHAPTER 2 – ANDROGYN: BACKGROUND AND CONCEPT

PSYCHOLOGICAL ANDROGYN: A LITERATURE SEARCH

Over the past thirty years, psychological androgyny has become a major focus in social psychological literature. The concept of androgyny is the blending of positive masculine and feminine characteristics within a given person. This appreciation greatly expanded the realm of possible variations in the sexes' behaviour. However, despite the early proliferation of literature on psychological androgyny since its conceptualisation in the 1970s, an etymological summary [refer to Etymological Summary at end of literature review] of the concept reveals an apparent decline in interest in the topic in more recent times. This decline may suggest androgyny filled a troublesome void in sex-role theory and research; a possible exhaustion of theory regarding psychological androgyny; or perhaps that major fallacies in the assumptions made about psychological androgyny had been evidenced. Basically, it may denote psychological androgyny has served its research purpose. Although this may have certain credence, traditional activists [Bem, 1974; Spence, 1978; and later Cook, 1985] refute these claims suggesting instead that the influx of earlier writings related to psychological androgyny were less empirical, and more cultural/historical/theoretical (Bem, 2003). Furthermore, it has been suggested that many of the earlier studies were single efforts without follow-up, with results that offer little in the quest for comprehension (Cook, 1985). Other activists also seem particularly vocal in their condemnation of such claims, highlighting that most discussions of psychological androgyny have centred almost exclusively on talk about work activities, even though there is room for further examination of the concept in relation to sports (Vetterling-Braggin, 1982; Stake, 2003). This alludes to a general exhaustion of work-related psychological androgyny literature and subsequent decline in quantity. Stake (2003) expresses concern with this general lack of recent androgyny work giving three main causes, each independent of the other. Firstly, the untimely death of Jeanne Block, a founder of this research tradition (1976); secondly, Bem's (1993) seeming indifference with psychological androgyny (see: *Lens of Gender*, 1993) following her separation from her husband Daryl, and corresponding transition into therapy; and thirdly, the disbanding of Spence, Helmreich and Stapp to pursue other discourses. Finally, Stake

(2003) 'propounds her collaborations with researchers Smalley (1996), Zand (1996), Wise (2002) and most recently Lauren (2004), as complete – it is either cited there or it doesn't exist. Spurred by the acknowledgement of a much broader range of sex-role possibilities for members of both sexes; the brevity of discussions of psychological androgyny in relation to sports; and Stake (2003) and her contemporaries' (Bem; Smalley; Spence, Helmreich and Stapp; Wise; Zand) exuberance; to impose some structure on this sprawling body of androgyny literature is a necessary task. The aims then are to make sure that androgyny's background and concept are refined to appreciate the complexity of psychological androgyny in definition, categorisation, measure and propensity; a lucid analysis of what and how research on the concept in relation to sports was accomplished; to evaluate the positive aspects with which androgyny is generally accepted and which is thought advantageous for self-adjustment, and the arguments for, and against personality trait theory as a measure are considered.

As Martin (1996) propounds however it is crucial to remember in surveying literature that the review is selective. Only those studies, which are closest and most relevant to the research at hand, are suitable for inclusion (Martin, 1996). This advice seems unerringly apt to the *value* a literature search constitutes in *adding* to knowledge. To begin to understand this relationship of literature as knowledge we may recall an analogy, noted by Massey (1996), to the figurative 'researcher as a hunter'. Just as a hunter follows tracks through only partially familiar territory, the researcher may be said to function in a similar way. Some tracks turn out to be false trails, leading nowhere; others are so old that they are of little use to the present search (though following some of these trails is a good way of getting to know the forest) whilst still others, prove to be conducive. A search of the literature therefore provides a systematic, explicit and reproducible method for the researcher, in identifying, evaluating and interpreting the existing body of knowledge on a given subject (Blaxter, 2000). In effect a literature search is the particular '*trail*', which guides an understanding, but which trail to commence? From Wittgenstein (1953) two main trails prevail: trails of ignorance (there are things existing that we do not know enough about and therefore we require more information), and trails of confusion (we have the

information but we do not understand what it amounts to). As it transpires, Wittgenstein's advice was to seek clarity in the information we have, rather than acquire more. Hart (1998) claims if this distinction aims to examine or explore existing theories, practices or ideas and subject them to careful analysis, then it may be reasoned that we can clarify our understanding and be saved from endlessly searching for more information, thereby compounding our confusion. In this case, a *trail* following Wittgenstein's advice would be preferable. Although Stake (2003) enthused for further examination of the concept in relation to sports, little or no previous research linking psychological androgyny to physical achievements seemingly exists (see: Vetterling-Braggin, 1982), therefore, the most plausible *trail* with which to commence, and, in effect a good way of getting to know the forest, is to consult the original sources (Cook, 1985; Veal, 1997). This review therefore is necessarily selective.

PSYCHOLOGICAL ANDROGYNY: AN APPRECIATION

Although an ancient concept (Helibrun, 1973), interest in androgyny was initiated in the 1970s with the work of Constantinople (1973), Bem (1974) and Spence (1974). Before 1973, both in psychology and society at large, most researchers assumed that masculinity [M] and femininity [F] were long conceptualised as the endpoints of a single, bipolar dimension (Bem, 1974). This sex-role dichotomy led to a person being defined as either 'masculine' or 'feminine', but not both. From this perspective males are supposed to engender the masculine sex role while females are expected to demonstrate the feminine sex role, and concurrently suppress or reject any behaviour that was not compatible with that particular image (cf. Kagan, 1964; Kohlberg, 1966; and Whitley, 1984). For instance, it has commonly been argued that competitive sports are primarily suited to men because they have inherent athletic abilities (Dyer, 1982; Hargreaves, 1993). This belief was in agreement with traditional personality theory, termed the 'trait' assumption that an individual's behaviour tended to display consistency across varying situations – labelled 'cross-situational consistency' in psychological parlance. Thus, a typical masculine self-concept would inhibit those behaviours that were stereotyped as feminine even when they were positive, and a typical feminine image would inhibit those behaviours stereotypical of masculinity (Bem, 1974). Indeed, displaying sex-typed behaviours (those stereotypically associated with one's own gender) was deemed healthy, both psychologically and socially; however cross-sex behaviours and preferences (e.g. athleticism among women) were considered indicators of sexual deviance. Some people even believe that women are not meant to compete in athletics, and that those who try are not only doomed to failure, but are demonstrating somehow, something imperfect in their makeup as women (Dyer, 1982). Thought processes are rooted in discussion about the nature of psychological differences between the sexes, but they have now been reframed to acknowledge a much broader range of gender role options for women and men alike (Cook, 1985).

The previously construed bipolarity of masculinity and femininity was given another dimension when Constantinople (1973), Bem (1974), Block (1976), Spence (1974), Spence and Helmreich (1978) and others subsequently were beginning to converge

upon the set of ideas which still constitute the core meaning of androgyny and which still set it apart from more traditional views of sex roles. These '*founders*' were positing the iconoclastic ideas, for example, that masculinity and femininity are not opposite poles of a single dimension, but are instead two separate, orthogonal, and equally important aspects of human personality; that individuals do *not* have to be either masculine or feminine (or somewhere ambiguously and undesirably in between), but can instead be androgynous or express both masculine and feminine attributes; and, finally, that the sex-typed individual may not be the ideal of psychological health, but that instead the androgynous individual, whose self-concept and behaviour were expected to be less narrowly restricted along sex role lines, might be more psychologically flexible and more ready to meet the complex demands of our society (Lenney, 1979). The result is a body of literature on the sexes' behaviour, emphasising similarities rather than differences, as situationally appropriate (Helmreich, Spence and Holahan, 1979) with women's sports slowly and erratically, but quite noticeably, increasing (Hargreaves, 1993).

The relationship of these feminine and masculine characteristics is less clear-cut than first conceived. Different authors have based their thinking about the concept of 'psychological androgyny' on at least three interrelated propositions. Firstly, masculine and feminine characteristics can be conceived as two separate dimensions that vary relatively independently (Spence and Helmreich, 1980). Secondly, masculinity and femininity *are each* unidimensional phenomena (cf. Constantinople, 1973; Sedney, 1989; Spence and Helmreich, 1980) and thirdly, possession of a high degree of both masculine and feminine qualities [androgyny] is more advantageous to the individual than possession [and expression] of only masculine or feminine characteristics (Sedney, 1989; Spence and Helmreich, 1980). Essentially, androgyny theory rested on the proposition that the perpetuation of traditional sex-role distinctions was dysfunctional (Spence and Helmreich, 1979).

As is often the case, variations in definition reflect disagreement and confusion. The term androgyny has been used, variously, to cover a balance of socially defined traits, a lack of adherence to stereotyped norms, and endorsement of feminine and masculine

identity (Sedney, 1989). This careless use of the term androgyny is part of a larger problem. Unfortunately, the terms 'masculine' and 'feminine' are value-laden and prone to much differing interpretation. The terms 'masculine' and 'feminine' as applied to psychological traits mean something quite different from those terms applied to persons. Here again, however, the meanings can vary from author to author. Mary Anne Warren (1980) claims androgyny relies on the normative senses of the terms as applied to psychological traits in defining 'androgyny'. In their normative senses, masculine and feminine mean 'more natural or desirable in males (females) than females (males)' (as cited in Vetterling-Braggin, 1982). Another way to interpret the terms would be descriptive use in which they mean 'characteristic of and peculiar to males (females)' (Vetterling-Braggin, 1982). Joyce Trebilcot (1977) relies on yet a third sense in her definitions of androgyny, in which masculine and feminine 'have been traditionally assigned to males and (females)' (as cited in Vetterling-Braggin, 1982). Broadly then, 'feminine' is what people think is or should be associated with females (Sherman, 1971, 1976; Steinman and Fox, 1966); 'masculine' is what people think is or should be associated with males (Brannon, 1976; Pleck, 1975, 1976), but are 'fuzzy and muddled' concepts (Constantinople, 1973). In sporting parlance, 'feminine' is the 'balance beam' where small size, flexibility and low centre of gravity combine to give women the kind of natural supremacy that masculine men enjoy in football (English, 1978). Not surprisingly, Spence and Buckner (1995), advise caution against taking a 'global' or 'macro' view of masculinity and femininity as these two concepts are multi-dimensional and often elude any consensus on definition and, therefore, meaningful research.

The vagueness with which the terms 'masculine' and 'feminine' have been used is one reason psychologists have continued attempts to bring clarity to these definitions. Bakan (1966) associated masculinity with an 'agentic' orientation or a concern with self as an individual, and femininity with a 'communal' orientation or a concern for the relationship between self and others and the harmony of the group. Angyal (1965) asserted a similar duality in his distinction between autonomy functioning, expressed through mastery and achievement, and homonymy functioning expressed through connectedness with others. (See also the discussions of individualism and collectivism

by Josephs, Markus, and Tafariodi, 1992; and individuality and relatedness by Guisinger and Blatt, 1994). The contemporary conceptualisation of masculinity and femininity, the presumably complementary roles to which inordinate attention has been paid are those labelled 'instrumentality' and 'expressiveness'. These terms were originally coined by Parsons and Bales (1955) to describe the kinds of behaviours that different people were observed to display in small-group interactions. Some participants assumed what Parsons and Bales called instrumental roles, that is, goal-orientated behaviours directly aimed at accomplishing the purposes of the group. For Postow (1980) instrumentality includes aggressiveness, competitive spirit, stamina, and discipline, all focussed on winning and setting records. These elements of role constitute a mode which is understood to conform to an image of masculinity. Others assumed what Parsons and Bales described as expressive roles, that is, behaviours aimed at promoting group harmony and co-operation. Such a role would socialise sport, and it is commonly thought must be played in this way to grant fully what Jane English (1978) calls the basic benefits of sports, such as health and fun. A role compatible with femininity. This distinction has formed the basis for a plethora of research and discussion. In essence, instrumentality connotes a goal orientation and a general insensitivity to the responses that others have to the person's behaviour. Expressiveness connotes sensitivity to others' responses and a concern with interpersonal relationships (cf. Bakan, 1966; Cook, 1984; Hegelson, 1994; Parsons and Bales, 1953). Gill (1987) argues that despite the compelling nature of these labels both instrumentality and expressiveness are *active* orientations as opposed to *passive* elements. Specifically, this means that expressiveness does not imply a lack of instrumental competence, nor does competence in instrumental activities preclude the ability to relate effectively (Gill, 1987). The important point is that despite the apparent diversity, the 'fuzzy' and 'muddled' terminology, where psychologists (e.g. Angyal, 1965; Bakan, 1966; Guisinger and Blatt, 1994) have persistently posited pairs of presumably complementary roles, instrumentality and expressiveness stereotypically associate with the masculine and feminine domains respectively. And, assuming that Gill's (1987) observation is correct, then the masculine and feminine domains can function relatively independently, but given that both masculinity (instrumentality) and femininity (expressiveness) are fundamental to human experience successful

functioning in one area cannot be a substitute for successful functioning in the other (Stake, 1996). Accordingly, androgyny can be defined as the inclusion of both masculine (instrumental) and feminine (expressive) characteristics in which both males and females regard themselves first as human beings and second as only men or women (Singer, 1992). In, the case of the athletes of this study, males and females may regard themselves first as athletes and second as only men and women.

Most of the empirical research attempting to test the validity of this set of assumptions has employed the Bem Sex Role Inventory (BSRI: Bem, 1974) or the Personal Attributes Questionnaire (PAQ: Spence, Helmreich, and Stapp, 1975; Spence and Helmreich, 1978), both of which are self-report trait measures containing separate masculinity [*M*] and femininity [*F*] scales. Other measures with similar intent have been offered by Berzins (Berzins, Welling, and Wetter, 1978), Helibrun (1976) and others. By way of introduction, all that needs to be stated at this point about the BSRI and PAQ is that both are self-report measures composed of two major scales, one containing descriptors of personality characteristics stereotypically associated with males (*M* scale), and the other containing descriptors of characteristics associated with females (*F* scale). Not surprisingly, a backlash to the two inventories developed. Primary to the debate is the central tenet that the BSRI and PAQ are not empirical or are at least incapable of testing empirically. Hoagland (1977) states that the very concepts of masculinity and femininity construed in terms of lists are 'not empirical' ones by which she apparently means that claims containing the terms masculine and feminine so defined are not subject to objective testing. Hoagland's justification for the view is, at least in part, that a number of theorists use the terms 'masculine' and 'feminine' prescriptively which, as was spelled out previously, results in their failing to fully appreciate with the multidimensionality of sex difference, thus forcing a conclusion by linguistic misrepresentation rather than by empirical investigation. The argument generated support with others (cf. Pedhazur and Tetenbaum, 1979; Strahan, 1975; Constantinople, 1973), which would suggest respondents may have interpreted the terms either normatively or prescriptively. The above discussion, however, contradicts the inventory's intentions. Bem (1979) claims the theory underlying the BSRI asserts that sex-typed individuals will conform to whatever definitions of

masculinity and femininity the culture happens to provide. Furthermore, the theory deliberately does not specify the particular contents of these definitions, however, because these will vary from culture to culture (Bem, 1979). The argument is analogous to that offered by Spence (1991) in charging that their inventory (Spence, Helmreich, and Stapp, 1975) prescribes masculinity and femininity. Conversely, the PAQ measures instrumentality and expressivity, trait descriptors in which they mean 'characteristic of and peculiar to' the domains of masculinity and femininity. In other words, the PAQ refers to the gender-related instrumental and expressive traits and not the sex-role orientation. Using the PAQ to prescribe the terms masculine and feminine is therefore inappropriate. In opposition to prior beliefs, Spence and Buckner (1995) also further contended that the labels instrumental and expressive are both empirically accurate and without unwanted theoretical overtones. Soble (1980) offers further pervasive argument in support of the inventories when he dispels Hoagland's (1977) concerns by maintaining that the ascription of masculinity and femininity to a person would not distinguish the ascription from that of many other terms in the social sciences, and it therefore does not rule out claims containing such terms from the realm of the 'empirical' (as cited in Vetterling-Braggin, 1982).

Closely, related to the criticism that the BSRI and PAQ are not empirical is the objection that the masculinity and femininity scales are not unidimensional. Researchers Pearson, (1980); Pedhazur and Tetenbaum, (1979) Sassenrath and Yonge, (1979) for instance, have reservations that masculinity and femininity are actually factorially complex and multidimensional rather than being two unidimensional scales measuring a unitary phenomena (e.g. level of androgyny in athletes). Although conclusive evidence is equivocal, Bem (1979) elicits cultural arbitrariness as justification for unidimensionality. That is, the culture has arbitrarily clustered together heterogeneous collections of attributes into two categories prescribed as more desirable for one sex or the other and that the purpose of the BSRI is to determine how individuals self-endorse these clusters. The athletic masculine man is active, aggressive, competitive and athletic (Choi, 2000; Dyer, 1982). The non-athletic feminine female is passive, sensitive, caring, non-athletic and fragile (Choi, 2000; Dyer, 1982). Marsh and Myers (1986) believe that Bem's position is thus consistent with

multidimensionality not unidimensionality. In agreement, Spence and Helmreich (1979; 1981) concede that these findings support the contention that masculinity and femininity are each multidimensional constructs and cannot be adequately described as single, unidimensional constructs, although Spence (1983; 1984) argues that none of the scales measured by PAQ are 'global' (multidimensional) but instead measure primarily the instrumental and expressive traits. By the same token, Ruch (1984) contends that even though the BSRI scales may not be unidimensional, the most important distinction among the items is the subgrouping into masculinity and femininity categories. This primary distinction lends support to the validity of the BSRI. The concerns raised by Pedhazur and Tetenbaum, (1979) and others, about the multidimensionality of the concepts of masculinity and femininity suggest that questions about masculinity, femininity, and androgyny should be guided by two important considerations, how these concepts are perceived by the individual/athlete and how individuals/athletes cognitively structure gender-related information.

Researchers (Pedhazur and Tetenbaum, 1979) have also criticised the varying use of the 'social desirability' concept in these inventories. There appears to be some disagreement amongst researchers (cf. Marsh and Myers, 1986; Pedhazur and Tetenbaum, 1979; Spence, et al., 1974) as to the exactness of this argument, but generally the BSRI and PAQ primarily consider only socially desirable attributes, and this may constitute an important weakness. For example, the correlation between the scales (*M* and *F*) may be masked by a 'method effect' in responses to the socially desirable items (cf. Baumrind, 1983; Kelly, Caudill, Hathorn, and O'Brien, 1977; Kelly and Worrell, 1977; Pedhazur and Tetenbaum, 1979). According to such a 'method-effect' hypothesis, responses to two sets of socially desirable items will be positively correlated in a way independent of the true MF correlation. Spence, Helmreich and Holahan (1979), basing their opinions on intuitive and theoretical perspectives, also contended that many *M* and *F* characteristics are socially *undesirable*, but may still have important consequences. For example, this finding may support the position that negative attributes may be a functional part of some or all sex role orientation (Kelly and Worrell, 1977). Nevertheless, both the BSRI and PAQ make inference about androgyny on the basis of socially desirable characteristics. Theoretically, then, it

seems increasingly inappropriate to define androgyny in terms of relatively undesirable attributes (Bem, 1979). In response, the BSRI was refined to consist of items that represented the most desirable personality characteristics for a given sex (SBSRI). In contrast, to the refinement of the BSRI and to the critique by Pedhazur and Tetenbaum (1979), amongst others, Spence, et al, (1979) expanded the PAQ (EPAQ) to include comparable *M* and *F* scales defined by socially *undesirable* characteristics. (See also the Australian Sex Role Scale (ASRS) by Antill, Cunningham, Russell and Thompson, 1981). The evidence reviewed here suggests that the most cautious conclusion to be drawn about Pedhazur and Tetenbaum, (1979), amongst others', criticism regarding the varying use of 'social desirable' attributes is that a compelling conformity has yet to be presented and accordingly as Cook (1985) reflects whether this diversity in factor structure represents a fatal flaw in psychological androgyny is a matter of opinion.

At the same time and perhaps predictably so, as Bem (1979) postulated her revision of the BSRI, comparative concerns to Pedhazur and Tetenbaum's (1979) emerged. A review of the BSRI led Locksley and Colten (1979) and Morgan (1982) to seek reason for certain item inclusion or exclusion and its classification by Bem as masculine, feminine or neutral. For example, Bem does not account for the fact that significant stereotypes are *not* represented in the inventory, nor similarly, the traditional split between rationality and intuition, where rational consciousness (to win) is regarded as a male prerogative and intuitive, unconscious, passionate emotionality (to be involved) is regarded as essential to the nature of women (Broverman, 1970; Doherty, 1978). Further concerns arise concerning the inclusion of a neutral column in this inventory. If androgyny is, optimally, to be measured in terms of the inclusion of both masculine (instrumental) and feminine (expressive) characteristics, of what relevance is the third, sex-neutral column of items other than filling in the testing situation? The neutral column contains such items as 'adaptable', 'conscientious', 'helpful', 'likeable', 'sincere', 'tactful', and 'truthful'. If the androgynous individual is measured simply in terms of the masculinity and femininity columns, but may score low or indeed zero on the neutral set, then it is implausible to regard that individual as 'fully human'. Important human characteristics such as sincerity, adaptability and truthfulness are left out, but

surely an androgynous individual who was also adaptable, helpful, sincere, and truthful would be more fully human than one who was not (Morgan, 1982). Conversely, the inventory includes items such as 'aggressive', 'individualistic', 'childlike', 'flatterable', and 'gullible'. These are classified by Bem as masculine and feminine, and the concept of androgyny in effect, requires us to *add* the masculine and feminine items together, but it is difficult to see how including these items in one's self-definition makes one 'more fully human' (Morgan, 1982). Similarly, some characteristics on the BSRI, such as 'athletic' (which is of central concern with respect to the argument of this study) or 'dominant', might be viewed quite differently depending on whether its referent is a man or a woman. Men for instance, have been criticised for being too athletic (aggressive/competitive), while women are striving to be more athletic (feeling of identity/solidarity). The word 'athletic' may therefore carry different connotations when applied to men rather than to women (Locksley and Colten, 1979; Postow, 1980). In response, Bem (1979) defends the selection process claiming that an item was defined only as masculine or feminine if, and only if, it was consistently and reliably rated as significantly more desirable for one or the other of the two sexes by an independent group of judges (despite criticism to the contrary: that the 'independent judges' were American middle-class undergraduates). Moreover, Bem defends the inclusion of a sex-neutral column suggesting that during the development of the BSRI it was utilised to ensure that the inventory would not simply be tapping a general tendency to endorse socially desirable traits. It would therefore appear that the seemingly contradictory assertions posited from these research perspectives can be resolved only by acknowledging that the inventory stresses the importance of proximal rather than distal characteristics. Consequently, this view may suggest that androgyny does not necessarily represent the fullest expression of human personality but alternatively abstract characteristics one might want to exhibit. Or as Bem (1976:51) remarks, "an androgynous personality would thus represent the *very* best of what masculinity and femininity have each come to represent".

A related concern is the contribution of androgyny – the coexistence of traditionally masculine or instrumental, characteristics and traditionally feminine or expressive characteristics – to psychological health (Bem, 1974; Spence, Helmreich, and Stapp,

1975). Androgynists have suggested (a) that both instrumental and expressive traits are fundamental to psychological health (cf. Bem, 1974, 1975, 1978; Helgeson, 1994; Spence, et al, 1975), (b) that the combination of both dimensions heightens an individual's well being (Lubinski, Tellegen, and Butcher, 1981), and (c) that the absence of either dimension results in psychological distress (Helgeson, 1994). Under this assumption, androgyny theorists argue that to be confined to *either* the masculine or the feminine modes of behaviour is to be less than what a complete and competent human being ought to be (Vetterling-Braggin, 1982). It stands to reason then, that Bem (1974, 1975, and 1979) believed that individuals who have a balance of masculine and feminine traits enjoy healthier psychological functioning than those who are stereotypically associated with one's own gender. Indeed, from a masculine perspective, Connell (1995) explored the emotionally and physically damaging consequences for men, of the pressures exerted by associated qualities logically related to the masculine domain. For example, athletic men are discouraged from engaging in activities which are especially appropriate for women and inappropriate for men. Cheerleading and volleyball would not qualify as masculine sport. Furthermore, through parental encouragement to show masculinity, male athletes learn to renounce signs of weakness, such as tears, even when victorious. Similarly, analyses of socially approved feminine gender-role expectations suggest that pressures placed on women can adversely affect one's sensory and sensual capacities (Davies, 1995). For example, Krane et al (1998) found that female athletes were concerned about their muscular bodies and whether they looked masculine only in social settings. The fear of the lesbian label also creates a very heterosexist and homonegative environment within women's sports (Krane, 1997b). Researchers who support Bem's perspective thus conclude that the most productive and healthy gender orientation is androgyny, and that one's psychological well being will be maximised when one has an androgynous gender orientation (Whitley, 1983). Indeed, Helibrun (1973) notes that Coleridge (1832) remarked, 'the truth is, a great mind must be androgynous'.

Most androgyny research (cf. Bassoff and Glass, 1982; Long, 1989; Orlofsky and O'Heron, 1987; Taylor and Hall, 1982; Whitley, 1983) has however not supported this hypothesis and, instead, has suggested that instrumental traits are far more important

than expressive traits for ensuring the individual's mental health and adjustment in our society (presumably including a sport environment) and that expressivity in the absence of instrumentality may contribute to depression (Tinsley, Sullivan-Guest, and McGuire, 1984). Taylor and Hall (1982) tentatively concluded that the instrumental traits were more important, since most studies find a strong relationship between the instrumental traits and well being while the effects of expressiveness vary across studies. Similarly, Pyke (1985) concluded that the well-being effects of androgyny were probably due entirely to the instrumental traits.

Thus it appears that the inconsistent results regarding the contribution of androgyny may be the result of conceptual over-claim. Although, Cook (1985), Stake (1996; 2000) and Wise and Stake (2003) are inclined to the opinion that the focus on dispositional traits, which fail to appreciate the social context, are accountable. That is, psychological androgyny has largely ignored a focus on specificity of situation, seemingly relying upon the trait-based approach and its reported applicability across situations (Cook, 1985). Here, a person's traits are believed to be a relatively stable predisposition to behave in a certain way. This would imply a constraining factor, a factor that predetermines how one will behave. In short, trait theory doesn't take into account one very important factor – setting. It would seem entirely plausible that athletes in an athletic setting may be thought to behave incoherently with their behaviour depicted in the social mainstream. Stake (1996; 2000) concurs; noting that there is evidence to suggest people's responsiveness and modes of coping within differing life contexts are situation-specific (e.g. Billing and Moos, 1981; Korabik and Kampen, 1995; Holahan and Moos, 1987). Individuals do not behave in a certain manner simply because they have specified personality traits; their required behaviour is shaped by the interpretation of perceived factors present in the social action in which they partake (e.g. athletics). Indeed, in 1980, Rowland asserted that individuals' interpretations of appropriate behaviour on a situational basis must not be discounted (see also Emmett, 1966). As gender role behaviours may vary with different situational demands, a trait approach to measuring androgyny may not adequately assess the relationship between expressivity, instrumentality and psychological health, therefore, Stake (1997) and her colleagues' (Stake, Zand and Smalley, 1996) suggestion of a shift

in focus from gender role traits to situationally specific gender role behaviours and expectations may have some credence. In taking a situation-based approach to androgyny Stake, et al, found evidence that directly supports Bem's original prediction that androgynous functioning has more psychological advantages than a traditionally masculine style.

Aside from possible virtues, however, there are issues that need close discussion. First, with its appeal to 'situational demands' the extent to which we realise that individuals and entire societies are psychologically and morally responsible for *creating* the meaning of situations as well as the situations themselves may be 'camouflaged' and 'undercut' (Weidegger, 1976). In other words, is it not our personalities that create and subsequently dictate the situation in the first place? Is it not the athletes themselves choice to enter the athletic arena, and by doing so subject themselves to the viewers' gaze, therefore, is a situation-based approach to androgyny incumbent? Secondly, evidence exists that both instrumentality and expressiveness as measured by the shortened (S)BSRI are equally, independently related to several major components of well-being, including depression, positive affect, affect balance, and life satisfaction (Hunt, 1993). This is contrary to previous findings, which have linked only the instrumental traits consistently with psychological health. It may be that the theoretical fallacies of the BSRI as evidenced previously were not akin to measuring the psychological manifestations of the gender role expressive trait, unlike that of the (S)BSRI. A third possible consideration is the limitation of the methodologies to date. That is, 'situational-based' approaches to androgyny are posited on a limited sample base (Stake, 2000, Wise and Stake, 2002). Therefore, one may question the generalisability of the results. Given the aforementioned considerations, the present results appear inconclusive in suggesting that by taking a situational-based approach to androgyny, evidence will adequately assess the relationship between expressivity, instrumentality and psychological health. It is equally inconclusive to suggest that androgynous functioning cannot be adequately tested when androgyny is defined and measured as a set of personality traits that reside within the individual meaning of social contexts.

The issues restated:

It is presented that psychological androgyny is a worthy concept, if inconclusive. In order to show any consensus that may exist the research can now re-examine the theoretical and empirical issues which this review addressed, casting only an occasional glance at the political and moral consequences.

It is clear that the BSRI and PAQ inventories are largely confined to gender stereotypic instrumental and expressive traits that are socially more desirable to some degree in both sexes (cf. Bem, 1974; Parsons and Bales, 1953; Spence, Helmreich and Stapp, 1975; Spence, 1974; Spence and Helmreich, 1978; Vetterling-Braggin, 1982). The first empirical question to be asked is whether the inventories as formulated by Bem (1974) and Spence, et al, (1975) determine masculine and feminine characteristics that distinguish normatively between the sexes in a given society, and if so, can they be conceived as two separate dimensions that vary relatively independently. It transpired a lucid response was not forthcoming, as both concepts are fraught with serious lexical misinterpretation and misrepresentation (cf. Trebilcot, 1977; Warren, 1980; Vetterling-Braggin, 1982), to such an extent that Constantinople (1973:390) observed, "both theoretically and empirically these terms are among the 'muddiest' in the psychologist's vocabulary". Researchers conducting studies aimed at investigating masculinity and femininity, rarely offer a formal definition of the terms, opting instead for a pair of presumably complementary roles – namely, the gender-orientated instrumentality and expressiveness labels as originally coined by Parsons and Bales (1953) (see also Spence and Helmreich, 1978), a contention that Bem appears to be willing to concede. Their treatment makes it clear, at least empirically, that both the BSRI and PAQ suffer from the assumption that the empirical description of the words masculine and feminine do not need to be specified, prompting Hoagland, (1977); Pedhazur and Tetenbaum, (1979), and Strahan, (1975) amongst others, to charge the inventories scales as linguistic misrepresentations rather than empirical investigations. Moreover, these unqualified terms may falsely imply that it is theoretically and empirically useful to sweep all the traits on which men and women differ into two categories, masculine and feminine. In essence, the masculinity and femininity constructs have been eschewed for 'a better fit' alternative. Nonetheless, the clear implication is that there is a causal

link between masculinity and instrumentality and femininity and expressiveness. Furthermore, Gill (1987) argued that both instrumentality and expressiveness are *active* orientations and accordingly, can operate relatively independently of each other, but as Stake (1996) determines not as substitutes.

The second empirical question is whether masculinity and femininity are each unidimensional phenomena. To answer this question a factor analysis clarifying the actual content of the various inventory scales, was relevant. Researchers Pearson, (1980); Pedhazur and Tetenbaum, (1979) Sassenrath and Yonge, (1979) claimed partiality for multidimensionality rather than unidimensionality was apparent despite claims to the contrary (Bem, 1979). Pedhazur and Tetenbaum, (1979) also criticised the inconsistency with use of the 'social (un)desirability' concepts. In many instances, there is ambiguity, however, Bem (1979) did not view the lack of homogenous, unidimensional scales as 'devastating' as Pedhazur and Tetenbaum (1979). In her view, the BSRI appropriately reflects the heterogeneous collection of attributes arbitrarily clustered into two groups of 'masculine' and 'feminine' characteristics. Other common methodological problems queried include the criterion for item selection and the inclusion of a sex-neutral column (Locksley and Colten, 1979, and Morgan, 1982). Such concerns infer the inexactness in categorising androgyny. Thus, a number of possibilities arose: (a) androgyny may not necessarily represent the fullest expression of human personality; (b) only abstract characteristics one might want to exhibit are represented or (c) androgyny represents the *very* best of what masculinity and femininity have each come to signify (Bem, 1974). In apparent response to criticisms of their content and psychometric properties proposed by Pedhazur and Tetenbaum, (1979) amongst others, Bem (1979) conceded the virtue of including only desirable characteristics, and noted the development of a short form of the BSRI that retained only those items that represented the most desirable [instrumental and expressive] personality characteristics for a given sex. Conversely, Spence, et al, (1979) expanded PAQ to include comparable *M* and *F* scales defined by socially undesirable characteristics. Nevertheless, the understanding is that the two scales are similar in content, consisting primarily of desirable traits, therefore, in the absence of any compelling consensus to the contrary, it seems reasonable to assume that masculinity

and femininity are each unidimensional phenomena as determined by the BSRI and PAQ, even if implicitly rather than explicitly stated.

The third, and arguably most significant, question is whether the concept of psychological androgyny [as measured by the BSRI and/or the PAQ], which is more advantageous to the individual than possession of only masculine or feminine characteristics. This argument has taken a number of forms, two of which have significant theoretical and empirical implications. First, the capacity to exhibit both masculine and feminine behaviours, as appropriate to the context of athletic achievement, is desirable *per se* (Bem, 1981, Ickes and Barnes, 1978). Second, in contrast to previous views, which have upheld the belief that sex-typed individuals are less likely to be maladjusted than others, many supporters of androgyny theory suggest instead that men and women who possess both masculine [instrumental] and feminine [expressive] attributes tend to be psychologically healthier and more socially effective (cf. Bem, 1974, 1975, 1978; Helgeson, 1994; Lubinski, Tellegen, and Butcher, 1981; and Spence, et al, 1975). The legitimacy of these general assumptions, however, depends jointly on one's interpretation of what the BSRI and PAQ measure – masculinity and femininity in their 'global' sense or a more empirically limited set of masculine and feminine attributes – and on the validity of the proposition outlined above, namely that masculinity and femininity are conceivably, unidimensional concepts.

Therefore, while accepting that more conceptual refinement is needed when providing theoretically meaningful definitions of masculinity and femininity, as well as exercising suitable caution in generalising the results obtained with the BSRI and PAQ inventories, the concept of 'psychological androgyny' may nonetheless have considerable importance for breaking down false and destructive sexual stereotypes and therefore, encourage athletic competence and self-development.

ETYMOLOGICAL SUMMARY

Figure 1.1 AN ETYMOLOGICAL SUMMARY OF THE CONCEPT OF PSYCHOLOGICAL ANDROGYNY, 1970-2000s

Author	Period	Key Points	Framework	Seminal Works	Discussions
Constantinople, Bem, Lenney, Block, Kalin, Pedhazur and Tetenbaum, Spence and Helmreich, Spence, Helmreich and Stapp, Bem, Martyna and Watson, Berzins, Welling and Wetter, DeFronzo and Boudreau, Gayton, Havu, Ozman and Tavormina, Heilbrun, Heilbrun and Pitman, Hogan, Hyde and Phillis, Kaplan and Bean, Kaplan, Kelly, Furman and Young, Locksley and Colten, Myers and Lips, Small, Erdwins and Gross, Strahan, Trebilcot, Vandever, Wiggins and Holzmuller,	1970s	Questioning traditional psychological androgyny theory. Masculinity/Femininity as independent dimensions. BSRI. Situation specific. Rethinking sex differences. PAQ.	Conceptual Ethnographic Cultural Historical Theoretical Methodological Positivistic	Masculinity – Femininity: An Exception to a Famous Dictum (Constantinople, 1973); The Measurement of Psychological Androgyny (Bem, 1974); Androgyny: Some Audacious Assertions Toward its Coming of Age (Lenney, 1979); On Assessing Androgyny (Spence and Helmreich, 1979).	A Challenge to traditional acceptance in psychological measurement. The BSRI was establishing a new basis for the measurement of androgyny. Uniformed acceptance of androgyny. Challenging the psychology of sex differences. PAQ a similar alternative to the BSRI.
Bem, Morgan, Spence, Larsen and Seidman, Spence and Helmreich, McPherson and Spetrino, Ravinder, Handal and Salit, Silvern and Ryan, Deaux, Downs and Langlois, Eagly and Crowley, Marsh and	1980s	Gender Schema Theory. Median Spilt. Androgynous thinking seen as an ideal. Instrumentality and Expressiveness proposed as labels for masculinity and	Conceptual Theoretical Cognitive Methodological Phenomenological Summative	Androgyny and Gender Schema Theory (Bem, 1985); Androgyny: A Conceptual Critique (Morgan, 1982); Masculinity, Femininity, and Androgyny Viewed and Assessed as Distinct Concepts (Spence, 1983); Gender Schema	Sex typing derives from a readiness to encode information (inc. self) according to cultural norms of maleness and femaleness. Argues that androgyny represents the

Myers, Orlofsky and O'Heron, Deaux and Major, Taylor and Hall, Cook, Arkin and Johnson, Baril, Elbert, Mahar-Potter, Baumrind, Blanchard and Sargent, Burchardt and Serbin, Campbell, Steffen and Langmeyer, Clarey and Sanford, Cunningham and Antill, DeGregorio and Carver, Frable and Bern, Gilbert, Heilbrun, Kanter and Ellerbusch, Kaplan and Bean, Long, Lubinski, Tellegen and Butcher, Marsh, Pursell, Banikiotes and Sebastian, Pyke, Rotherram and Weiner, Sedney, Warren,		femininity. Social categorisation. Stereotypic behaviours.		Theory and Sex Role Inventories (Larsen and Seidman, 1986); Masculine Instrumentality and Feminine Expressiveness: Their Relationships (Spence and Helmreich, 1980); A Re-examination of Masculine and Feminine Sex Role Ideals (Silvern and Ryan, 1983); Psychological Androgyny: Theories, Methods and Conclusions (Taylor and Hall).	highest ideal. Need to rethink all-encompassing nature of androgyny and validity of measures utilised. Rethinking the assumption that masculinity is more highly valued than femininity or indeed if there is any difference between the sexes. Propounds that traits are inferred from behaviours, and are moving toward a broadening beyond the implications of behaviour to include attitudes, desires and so forth.
Stake, Vonk and Ashmore, Hunt, Singer, Spence and Buckner, Ghei and Nebel, Ballard-Reisch and Elton, Willemsen, Arkkelin and O'Connor, Yarnold, Ramanaiah and Detwiler, Marsh and Byrne, Stake, Zand, and Smalley, Scandura and Ragins, Spence, Miller and Kottke, Koestner and Aube, Bern, Blanchard-Fields, Suhrter-Roussel and Hertzog, Holt and Ellis,	1990s	Benefits of androgyny – well being etc. Multifaceted self. Traits and well-being. Defining the genders. Androgyny revisited. The 'good' professional. Differentiated Additive Androgyny Model. Social Expectations Scale.	Empirical Evaluative Analytical Summative Theoretical	Integrating Expressiveness and Instrumentality in Real-life Settings: A New Perspective on the Benefits of Androgyny (Stake, 1997); The Multifaceted Self: Androgyny Reassessed (Vonk and Ashmore, 1993); Masculinity and Femininity: Defining the Undefined (Spence and Buckner, 1995); Gender Orientation and the BSRI: A Psychological Construct Revisited (Ballard-Reisch and Elton, 1992); The Relation of Instrumentality and Expressiveness to Self-Concept and Adjustment: A	Re-exploration of androgynous concept. Expressiveness can be reconstructed as positive to well-being. The discussion of label semantics. Questions whether behaviour should have no gender identity. Alternatives forwarded, to rethink approach to measurements. Gender differences in social behaviours are affected by the salience of gender-role expectations within

				Social Context Perspective (Stake, Zand and Smalley, 1996); Lenses of Gender (Bem, 1993).	settings. Questions whether the BSRI and PAQ interchangeable?
Wise and Stake, Lauren, Rao and Ritter, Roberts, Bosson, Prewitt-Freilino and Taylor, Smiler, Ashmore, Deaux and McLaughlin-Volpe,	2000s	SES and Self-esteem. Androgyny and well-being. Masculinity under review. Misclassification of gender identity. Multidimensionality.	Empirical Conceptual Theoretical	Effects of Social Support and Self-esteem on the Relation between Social Expectations for Instrumentality and Expressiveness and well-being (Wise and Stake, 2002); Androgyny, Expressiveness and Instrumentality: Links between Mental Health and Gender-related Self-report Styles and Behaviour Under Situational Expectations (Lauren, 2002).	Is Self-esteem genderised? Review of the conceptualization of masculinity and their manifestation in measurement tools.

(For an evaluative introduction to the best resources available on the discussion of androgyny please see the Bibliographic Essay in appendix 1.0)

RESEARCH ON ANDROGYNY: A SPORTING RATIONALE

On the basis of the research discussed so far, psychological androgyny is based upon a number of commonly-held assumptions about the nature of masculinity and femininity, and their combined influence upon behaviour in sport. So why then the focus on psychological androgyny, over consideration to examining the nature and consequences of broader dimensions? The answer to this question seems apparent from a cursory glance of the literature: there is room for further examination of the concept, particularly in relation to sport (cf. Eklund, 2006; Stake, 2003; Postow, 1980; Vetterling-Braggin, 1982). Although as 'a newly discovered old concept' (Cook, 1985) most discussions of psychological androgynous themes in literature have centred almost exclusively on talk about work activities, even though there is a lack of literature in addressing sport related issues (Vetterling-Braggin, 1982). Despite meticulous and extensive inspection of the literature, this research appears to be the first to broach an empirical investigation of the concept in relation to British sport at least, British Club athletics. Correspondingly, and perhaps predictably so, social scientists' (cf. Bem, 1974; 1976; 1978; Block, 1973; 1976; Spence and Helmreich, 1974; 1978; 1979) research on androgyny was more cultural/historical/theoretical focused but less empirical (Bem, 2003), a response to a shifting social climate (cf. Baruch, Barnett, and Rivers, 1983; Hoffman, 1977; Marecek, 1979). Over time, with the naming of psychological androgyny, social scientists implicitly adopted this alternative conceptualisation in their research. Nonetheless, to some extent, researchers did document samples of athletes (cf. Mills and Bohannon, 1983; Myers and Lips, 1978; Spence and Helmreich, 1978) but theorists who emphasised sport-focused studies still tended to view sports as an unequivocally masculine endeavour. Previous studies, (e.g. Mills and Bohannon, 1983) that based their extensive analysis of sport-focus literature on male samples advance this conclusion. The evidence presented here suggests that past sport-focus related studies may have serious construction and design errors that prevent documenting whatever relationships may be present. Furthermore, studies were single efforts without follow-up, with results that confirm only a portion of the researcher's expectations. What this 'flash of truth' actually signifies is seldom clear. For Cook (1985) however, it is clear that those studies that have been undertaken require some serious editing. Inconsistencies among presumably similar studies (cf.

Myers and Lips, 1978; Spence and Helmreich, 1978) are legion (Cook, 1985). In no small degree, the inconsistencies are attributable to the prevalence of diverse samples, the lack of research and an oversimplification of construction and design procedures. How workable, then, are these studies? Do they accurately represent what is known about psychological androgyny in relation to sports, or are some revisions necessary? Thus there is reason, at least for a prospective research study to focus on psychological androgyny: an attempt to correct some of its shortcomings.

Research critique:

Shortcomings arise in trying to find pertinent literature to make use of. As Cook (1985) reminds us, any good research should begin with a review of relevant literature. However, part of the problem is a simple lack of literature to address sport-focus related issues. In an extensive, but not necessarily exhaustive, inspection of the literature (cf. Mills and Bohannon, 1983; Myers and Lips, 1978; Postow, 1980; Spence and Helmreich, 1978) few studies of psychological androgyny in sportspersons or athletes have been reported. When psychological androgyny in relation to sportspersons was found in research, it was casually reported, dismissed as inconsequential and seldom explained (cf. Cook, 1985; Lenney, 1979a; 1979b; Worell, 1978). Often significant reviews were done in a cursory fashion, listing only the favourite studies in the field at the time and omitting other easily retrievable, more relevant sources (Cook, 1985). By way of example, the value of Bem's work is undeniable, yet does not represent all androgyny research (Cook, 1985; Spence, 1983). Seemingly other perspectives were often not considered for some unspecified reason (cf. Cook, 1985). Conversely, when extensions to other perspectives were made, they needed to be accompanied by a thoughtful rationale so as not to appear to be 'fishing expeditions'. Unfortunately, such rationales were, all too frequently, much weaker than was necessary in sport-focus androgyny research. On this basis, we need to ask whether this treatment of the literature represents the fullest expression of androgyny research in relation to sport.

Besides the lack of research in the contemplation of sports, significant developments in the nature of androgyny and work exist, which to some extent is more central to the

discussion here. The upsurge of the feminist movement gave rise to the abolishment of traditional arguments for 'women's proper role', because newly emerging occupations demanded less of men's supposedly superior physical capacities and more of the training and education that both sexes were capable of mastering. This was especially true of higher paid, powerful, high status jobs (cf. Skovholt, 1978). Concomitantly, the women's labour force participation had increased, as had the divorce rate. Family size had decreased, and there was more time before and after the birth of children (cf. Hoffman, 1977; Marecek, 1979). Many women had recognised that home and family life was an important source of satisfaction in life, but that it was not the *only* source of satisfaction that they needed (cf. Baruch, Barnett, and Rivers, 1983). This new view emerged with social scientists' growing awareness of the inadequacies of the then current gender-based ideology. This might well explain Vetterling-Braggin's (1982) observation that most discussions of psychological androgynous themes in literature have centred almost exclusively on talk about work activities [refer to Androgyny Literature in Context]. What is not to be obscured by such a straightforward sample of an extensive body of work-related research is the comparatively small number of sport-focus studies. It seems as though sport-related research may have been expunged in response to a shifting social climate as well as in recognition of contemporary societal realities (Spence and Helmreich, 1978). Thus, there is reason to believe that there is room for further examination of the concept in relation to sports (cf. Stake, 2003; Postow, 1980; Vetterling-Braggin, 1982).

A more subtle, but intrinsically related problem with androgyny research in relation to sport is the issue of obsolete literature. On closer review, what few studies of sport-focus androgyny do exist, were introduced into psychological literature during the late 1970s and quickly gained recognition as a workable alternative to traditional views⁴. Despite this corpus of interest, sport-focus research was short-lived. By the nineteen eighties research into sport-related androgyny had ceased. Has sport-focus androgyny fulfilled its potential as a central concept in modern gender-based athletic theory and research? Or should it be retired as a concept with considerable appeal but limited

⁴ A limited number of more recent sport-related literatures are available (see review chapters by Gill in Horn, T. (2002) or Oglesby (1998); however these researches offer *little, if any* progression upon the original theoretical focus (Stake, 2003). Thus here, I follow the advice of Cook (1985:71) and consult the original sources.

usefulness? As Morgan (1982:246) flippantly remarked “androgyny promises a vision, what it delivers is a mirage”. The answer to these questions depends on one’s perspective. Certainly, sport-focus androgyny may have filled a troublesome void in gender-based theory and research. With modernisation and the rise of the 1970s ‘running boom’ (see Kardong, 1998), traditional arguments against women’s involvement became less convincing (cf. Dyer, 1982; Griffin, 1991; Hargreaves, 1994). The old stereotypes were effectively jarred (Money and Tucker, 1975; Spence and Helmreich, 1978). As a result, androgyny in relation to sport may have served its purpose. On the other hand, sport-focus androgyny theory and research may have highlighted the obsolete categories of traditional women’s and men’s sports and the assumptions that had perpetuated them (for a critical review of these issues, see Postow, 1980). In which case, sport-related androgyny is a work in progress. In some respects, the difference lies in how past sport-focus androgyny research is viewed, and the promise of androgyny for future research in sport. Beyond this, issues of obsolescence do not, necessarily, compromise the meaningfulness of the literature. Indeed, Cook (1985) claims readers interested in a well-rounded understanding of a given topic area should consult the original sources, irrespective of publication date. Although, if past research methods are found to be redundant, so will be the conclusions drawn from them. However, researchers can also improve future research by refining how these ideas are studied. Most androgyny researchers share this view; these conclusions, and what they might imply, deserve a closer look.

Part of the dissatisfaction with sport-focus related research is the failure to distinguish sample selection. Frequently, researches do not provide the reasons for selection of a given sample (Cook, 1985). As a result, it has been easy for researchers’ own values to affect how they view androgyny and its consequences. These views can colour how they plan and interpret androgyny research. To some extent, all researchers expect that their initial conceptions will have to be tempered in light of subsequent research or sloppy procedures (Cook, 1985). In sport-focus related research, part of the necessary re-examination may be due to an initial oversimplification of sampling criteria. As Cook (1985) amply documented, sampling procedures and the sample itself may be insufficiently described. How and why a particular group was chosen may be

undisclosed, as well as the percentages of those initially contacted who did agree to participate. In addition, characteristics of the sample itself beyond sex are often left unspecified. From this perspective, sport-focus research studies (e.g. Mills and Bohannon, 1983) as in many psychological studies (cf. Bem, Spence and Helmreich) favourite subject group was undergraduate college students. This poses a special problem in sport-focus research in that there is some evidence that student characteristics may vary somewhat compared to 'specified' (e.g. athletes) samples (Cook, 1985; Worell, 1978). Students also represent a distinct subgroup in terms of socio-economic status, career goals, racial or ethnic background, and intelligence. These factors may all have some impact on meaningful correlation. The implication is that it seems appropriate to re-examine the sampling criteria employed and assess its continuing usefulness. As Worell (1978) pointed out, the potential extremes of sample size may also be problematic. Very small samples make the meaningfulness of statistical analyses questionable, especially with the still smaller frequencies in the cross-sex typed categories. On the other hand, very large samples may encourage injudicious interpretation of statistically significant results when the actual sample size is quite small. Moreover, sampling issues extend to the use of 'specified' populations as well. It should not be assumed that members of 'specified' populations are completely independent of problems; they are by no means infallible. This occurs especially when studies were performed ignoring possible effects due to sex role in favour of analysing only male subjects (e.g. Mills and Bohannon, 1983). This research is of the opinion that there is nothing intrinsically wrong in using a male sample base, in a given research study, but if there is a superior method there is a moral reason to pursue that method rather than the masculine ideal. In retrospect, such confusions can be easily remedied through a more critical attitude toward sampling criteria. Thus the fact that sampling may have been sloppy does provide reason for a future research study (or this thesis) to focus on psychological androgyny.

Androgyny as an ideal:

A second cluster of features which may prompt research on psychological androgyny concerns the positive aspects with which androgyny is generally accepted, and which are thought to be necessary for self-adjustment (see Whitley, 1984). The combination

of both masculine and feminine characteristics is deemed to have desirable implications for an individual's well-being regardless of sex (cf. Block, Von der Lippe, and Block, 1973; Cook, 1985; Heilburn, 1968; Mussen, 1962). Under this assumption, the negative consequences of traditional sex roles accrue from the elimination of one set of characteristics from a person's personality (cf. Bem, 1974; 1975). Similarly, Spence and Helmreich (1979b) noted that a basic proposition underlying androgyny theory is that the perpetuation of traditional sex-role distinctions is dysfunctional. The blending of positive masculine and feminine characteristics afforded by androgyny is supposedly superior in promoting healthy adjustment in a variety of settings (presumably including a sport setting). As Kaplan (1979) stated androgyny can be the sex-role model of well-being.

An extensive cataloguing of androgyny studies provided some evidence supporting the superior personal functioning of androgynous persons. Hinrichsen, et al, (1981) reported that androgynous persons consistently rated themselves higher on psychological health and self-concept scales than did those in other sex-role categories. Burchardt and Serbin (1982) suggested androgynous persons to be the most 'symptom free' of the groups (i.e. androgynous, masculine, feminine, and undifferentiated). Bassoff and Glass (1982) concluded that androgynous and masculine subjects scored highest on measures of mental health over a range of studies. For Whitley (1984), psychological well-being would be maximised when one had an androgynous gender orientation. In Block's (1973) studies, higher levels of psychological development were associated with the development of self-concepts reflecting an integration of the agentic concerns, self-enhancement and self-extension, with the satisfaction deriving from communion and mutuality. Consistent with other research, Stake (2000) found evidence that suggests a link between androgyny and positive adjustment. When individuals perceived high social expectations for both instrumentality and expressiveness in a setting, they reported higher situation-specific well-being, self-esteem, satisfaction and self-assessments of likeability and giftedness than did individuals in situations with other social expectation patterns (Stake, et al, 1996). Moreover, some findings directly support Bem's original prediction that androgynous functioning has more mental health advantages than traditional sex roles (Stake, 2000).

Bem (1975) emphasised the superior flexibility of androgynous persons. Freed from the need to conform to rigid behavioural standards for his or her sex, an androgynous person is able to engage in masculine or feminine characteristics, or a blend of these depending upon what is appropriate for the specific situation (cf. Bem, 1975). This flexibility should lead to more adaptive behaviour (cf. Heilburn and Pitman, 1979). The results of researchers such as Amstey and Whitbourne (1981), Nettles and Loevinger (1983), Orlofsky (1977), Schiff and Koopman (1978) and Tzuriel (1984) indicate that androgynous persons tend to receive the most favourable scores or classifications on various indices of psychological development. Other results from studies pertaining to characteristics of androgynous persons lend some confirmation: androgynous persons have consistently displayed the most positive self-descriptions, self-esteem and adjustment, assertion skills and leadership, and achievement motivation.

Figure 1.2 CHARACTERISTICS OF ANDROGYNOUS PERSONS

Characteristics:	Researchers:
High on dimensions of <i>friendly-dominance</i> and social poise	Berzins, Welling and Wetter (1976) Berzins, Welling and Wetter (1978)
Characterised as outgoing, social, <i>high in leadership</i> , responsible, mature, socialised, <i>high-achieving</i> , concerned about others	Baucorn (1980)
Attribute generally <i>positive characteristics</i> to themselves	Wiggins and Holzmuller (1978)
Rated by others as most likeable and <i>well adjusted</i>	Major, Carnevale and Deaux (1981)
Highest ratings in <i>assertion skills</i>	Campbell, Steffen and Langmeyer (1981)
Scored highest in <i>role consistency</i> across situations	Heilburn (1976)
Highest on <i>self-esteem</i> measures	Spence, Helmreich, and Stapp (1975)

Adapted from Cook (1985:98) (*My Italics*)

To summarise, it seems quite obvious, only a person with both the so-called feminine virtues and the so-called masculine virtues will be able to function adequately in the full range of situations with which persons of either sex are confronted. Androgynists maintain, therefore, that human competence and psychological-development require the transcendence of sexual stereotypes, thus, androgyny is held up as a sex-neutral standard of successful self-adjustment (cf. Bem, 1975; Vetterling-Braggin, 1982;

Whitley, 1984). Does this hold true for sportspersons? To answer this question it would seem clear, that androgyny research is obligatory.

In brief, to reiterate the major reasons which have prompted this research: (i) Paucity of relevant literature. Most central to the discussion here is the simple lack of literature which addresses androgyny in relation to sport issues. (ii) Most of the androgyny literature implicitly pertains to work-related rather than sport-related issues. It seems as though sport-related research may have been expunged in response to recognition of contemporary social realities (Spence and Helmreich, 1978). (iii) The obsolescence of existing literatures. A review of the literature identified that studies in the area of androgyny in sport were less frequent by the 1980s. (iv) An oversimplification of sampling criteria employed by the researchers (Cook, 1985). Studies on sport-related androgyny theory are plagued with a number of methodological problems, most notably sampling selection. (v) Androgyny is seen as an ideal. Androgynous functioning is thought to be necessary for self-adjustment and more advantageous than 'traditional' sex roles (Bem, 1975). So there is reason to believe that psychological androgyny warrants further examination particularly with respect to sport.

ANDROGYNY RESEARCH IN CONTEXT

Figure 1.3 ANDROGYNY RESEARCH IN CONTEXT

Number	Sport-focus Related	Context of Management: Conceptual	Context of Management: Empirical	In Career Choice	In Career and Family Roles
1.	Colker and Widom, (1980)	Blanchard and Sargent, (1984)	Baril, Elbert, Mahar-Potter, and Reavy, (1989)	Arkin and Johnson, (1980)	Allgeier, (1975)
2.	Mills and Bohannon, (1983)	Bolton and Humphreys, (1977)	Chusmir and Koberg, (1990)	Berzins, Welling and Wetter, (1978)	Atkinson and Huston, (1984)
3.	Myers and Lips, (1978)	Cooke and Rousseau, (1984)	Porter, Geis, Cooper, and Newman, (1985)	Clarey and Sanford, (1982)	Berzins, Welling and Wetter, (1978)
4.	Postow, (1980)	Dann, (1990)	Powell and Butterfield, (1979, 1981, 1989)	Doherty, (1979)	DeFronzo and Boudreau, (1977)
5.	Spence and Helmreich, (1978)	Gregor and Withiam, (1991)		Harren and Biscardi, (1980)	Doherty, (1979)
6.	Williams and Miller (1983)	Guerrier and Lockwood, (1991)		Harren, Kass, Tinsley and Moreland, (1979)	Falbo, Graham and Gryskiewicz, (1978)
7.		Martins-Crane, Beyerlein and Johnson, (1995)		Kanter and Ellerbusch, (1980)	Farmer and Fyans, (1983)
8.		Nebel, (1991)		Long, (1982)	Gaddy, Glass and Arnkoff, (1983)
9.		Nebel and Stearns, (1977)		Marshall and Wijting,	Hoffman and Fidell, (1979)

				(1980)	
10.		Worsfold, (1989a, 1989b)		Moreland, Harren, Krimsky-Montague, and Tinsley, (1979)	Holahan and Gilbert, (1979)
11.				Motowidlo, (1982)	Piel, (1977)
12.				Piel, (1977)	Pursell, Banikiotes and Sebastian, (1981)
13.				Spence and Helmreich, (1978)	Rotheram and Weiner, (1983)
14.				Tinsley, Kass, Moreland and Harren, (1983)	Spence and Helmreich, (1978)
15.				Tyer and Erdwins, (1979)	Waddell, (1983)
16.				Vandever, (1978)	Williams and McCullers, (1983)
17.				Waddell, (1983)	
18.				Welch, (1979)	
19.				Willaims and McCullers, (1982)	
20.				Williams and Miller, (1983)	
21.				Wolfe and Betz, (1981)	
22.				Yanico, (1981, 1982)	

23.				Yanico and Hardin, (1981)	
24.				Yanico, Hardin and McLaughlin, (1978)	

ANDROGYNY AS - PERSONALITY TRAIT THEORY

Two important functional characteristics of psychological androgyny literature to-date are that, first androgyny has a personality that can be measured and second, this personality, more often than not, is a social construct. In question fundamentally, are the taken-for-granted assumptions concerning gender differences. In its most common usage, the term gender means the cultural differences of women and men (or men from women; Birrell, 1984), based on the biological division between males and females (Connell, 2002). For example, women, on average, are not as strong as men. Women are smaller and more petite and from an early age it has been observed that they cannot throw as far as men, run as fast, nor hit as hard (Young, 1990). Dichotomy and difference are the substance of the idea. Gender stereotypes are rooted in dualisms such as passive/assertive, strong/weak, irrational/rational, gentle/forceful, emotional/distant (Archer and Lloyd, 1985; Edley and Wetherall, 1995) and, as such, form a significant part of the problem of what constitutes personality definition. Although, without wishing to discount the importance of such dualisms, our sex/gender (see: Morgan, 1986) identity is probably the most central to how we see ourselves and how others see us. Research purporting to 'prove' a fundamental biological basis to sex and gender differentials continues apace (for example, Pinker, 1998; 2002; Wright, 1995). For Pinker (2002) our rapidly expanding knowledge of evolution, genetics and the prodigious complexity of the human brain and central nervous system proclaim that from birth we bring into this world a gamut of shared aptitudes, deep grammar, and values and indeed, flaws, on which our human personhood builds and expands by a process of action and interaction with the world (sentiments reflective of Rousseau, 1712-1778). Pinker's distinction between sex and gender, however, serves the argument that whatever biological intractability sex appears to have, gender is culturally receptive: hence, gender is neither the causal result of sex nor as seemingly fixed as sex. It would make no sense, then, to define gender as the cultural interpretation of sex (Butler, 1999). Rather gender must be understood as a social structure. For de Beauvoir (1973), gender is constructed, but implied in her formulation is an agent, who somehow takes on or appropriates that gender and could, in principle, take on some other gender. To put it informally, gender is not an expression of biology, nor a fixed dichotomy between masculinity and femininity.

Thus judgement about biological division and the subsequent feminine appropriateness of a sport can only be based on subjective criteria derived from personal attitudes and beliefs.

But is gender as variable and volitional as de Beauvoir's (1973) account seems to suggest? Can 'construction' in such a case be reduced to a form of choice? Clearly, for de Beauvoir (1973) gender is portrayed as a by-product of social and cultural change. De Beauvoir (1973) proposes that gender ought to be the situation and instrumentality of radical freedom and not a defining and limiting essence. In which case, being a man or a woman is not a fixed state. People construct themselves as masculine or feminine. In doing so, unsurprisingly, they tend to draw on and be influenced by displays of exemplary masculinities (e.g. aggressiveness, competitive spirit, stamina, and discipline (Postow, 1980)) and femininities (e.g. health and fun (English, 1978)). Most people do this willingly, and often enjoy the gender polarity. Yet gender ambiguities are not so rare. Psychological research (i.e. Bem, Spence et al. Cook) suggests that the great majority of us combine masculine and feminine traits, in varying blends, rather than being all one or all the other. Central to this concept is that learning gender is a matter of acquiring instrumental and/or expressive traits.

This is an immense and critical theme, not employed lightly, and whilst it is not an objective to produce evidence demonstrating whether personality traits are merely vehicles of our genes – biological inheritance (as Bouchard, et al., John and Robins, and others maintain) whether genes determine our personality traits (as Ajzen, 1988; Buss, Brody appear to claim), or whether personality traits are a social construct rather than a given – social theory (as Mischel, Pervin and Funder, 1991 argues), it is necessary to show that parallel versions exist and each are value-laden and prone to many differing interpretations. Nonetheless, when we come to talk about successful athletes we tend to ask ourselves a question that has been around ever since sports started- are great athletes born or made?

Many trait theorists have argued in favour of the strong heritability of personality traits (i.e. Bouchard, et al.). Take, for example, recent estimates of the overall heritability of

personality traits, which indicated a strong genetic contribution to personality [overall estimate of 40% of the variance] (see Bouchard, et al., 1990; Dunn and Plomin, 1990; Loehlin, 1992; etc., for further discussion). According to such personality psychologists, 'evidence for genetic influences in traits provides one of the strongest sources of support for assigning a central role in personality to traits' (Brody, 1988:69). Succinctly, traits have a genetic basis. That is, our genes cause us to seek out certain environments. Being 'athletic' guides one towards a sporting environment; but beyond this, personality psychologists also suggest that we share social patterns of relating to one another. For example, characteristics considered to be desirable in a male or female, male-female differences, altruism and basic emotions experienced, have all been considered to reflect our personality in the form of information contained in genes. Indeed, one of the interesting aspects of human personality is if the genetic data indicate that roughly 40 percent of the variance for personality are determined by genetic factors, then the rest of the population variance is made up of social interaction and measurement error. Thus, "ask not what is heritable; ask instead what is not heritable" (Plomin, 1990:112).

Indeed, current thinking in the field suggests that the social construct is important, that it accounts for at least half the variance in personality traits, and that there is a danger that the rush from the social will go too far (Dunn and Plomin, 1990; Plomin et al., 1990). At the same time, Pervin (1994) has identified no one has argued that inheritance is all-important or even more important than social construct, if such a comparison is even meaningful. It should also be noted that evidence of the heritability of personality varies considerably from one characteristic to another, being generally more important for traits associated with temperament (e.g. emotionality, activity, sociability; (Buss and Plomin, 1984)) and less important in regard to values, ideals and beliefs. Although the evidence in support is inconclusive the suggestion is that traits are learned (Funder, 1991). For instance, Ruiz (2005) states reaching the top can be achieved by any athlete with an abundance of dedication and inspired guidance. Athletes, he claims, are made and not born because the people that work hard to get there will get there. If, then, the labels instrumentality and expressiveness purported by Spence and Helmreich (1978) are indeed nouns for collective traits, and traits

explicate personality, then it is fair to assume that personality directs gender. And, if the traits that explicate personality are not fixed and permanent, then gender is susceptible to fluctuants, even perhaps, between the masculine and feminine domains.

Moreover, in Bem's (1974), and Spence and Helmreich's (1979) views, a consensus is emerging around the use of traits as the basic structure of personality. In line with this assumption, much research over the years has attempted to identify the primary or basic traits in human personality (e.g. Cattell, 1947; Eysenck, 1953; Jackson, 1967). Indeed the personality field is witnessing a resurgence of interest in traits. From the threats to its conceptual foundations, dating back to the 1960s and most exemplified in the works of Mischel (1968) and Peterson (1968), personality trait theory has returned with a vengeance so much so that some see the field as having arrived at a consensus concerning the basic structure of personality (i.e. Buss, 1989; Brody, 1988; Digman, 1990). What is striking concerning the statements of many trait enthusiasts is that progress in personality trait theory and research has come to be equated with a 'consensus' concerning the 'structure' [the concept that refers to the more enduring and stable aspects of personality] of personality, thereby virtually equating personality trait theory with the field of personality (Pervin, 1994). Consider for example Buss' (1989:1378) statement, "if there is to be a speciality called personality, its unique and therefore defining characteristic is traits" or Brody's (1988:1) reference, "personality psychology may be defined as the study of individual differences". In both cases personality can be taken as an individual's unique, relatively consistent pattern of enduring characteristics (i.e. thoughts, feelings, behaviours, and emotions) called traits.

It is taken here that the terms personality, characteristic, trait and even psychology have significant contextual and lexical interpretations; they are dependent upon those who perceive the conceptual relationship(s) between them and the choice of language they use to ascribe meaning to their experience. It thus follows then, to define such terms precisely is an all but impossible task, a claim that acknowledges the widespread variations of the root concepts that exist in the literature and highlights the difficulty likely to be experienced in attempting annotation. Some psychologists, argue that traits express genetic predispositions [for example, temperament] (see Bouchard, Lykken,

McGue, Segal and Tellegen, 1990; John and Robins, 1993; Loehlin, 1992; Plomin, Chipeur, and Loehlin, 1990 for general discussion); some that they are learned behaviour patterns (Mischel, 1968; Pervin, 1978b) yet others that they do not exist. Therefore, it seems rather extreme to conclude a consensus concerning the structure of personality has arrived when the supportive data are based on latent hypothetical characteristics that manifest themselves in a wide variety of underlying dispositions which, are inclined to individual ascription and conceptual understanding.

Indeed, one can ask how much evidence there actually is in support of the longitudinal stability of some important aspects of personality. According to Buss, (1988) personality traits change over time, but for most traits and for most individuals, the changes are unlikely to be large enough to deny stability, a sentiment shared by others (cf. Brody, 1988; McCrae and Costa, 1990; Roberts and Del Vecchio, 2000). Interestingly, McCrae and Costa (1990) even propound that personality apparently changes little after the age of thirty in most people. If indeed, this is the case, is it not important to consider whether some significant aspects of personality are being neglected? After all, to what extent has a consensus emerged concerning how many and which traits form the basic structure of personality? And what, then, of the nature of the personality change that does occur? Or indeed, of the traits omitted? As Pervin (1994) emphasises, there is at least as much evidence of personality change as there is of personality stability. Therefore, not to address the issue of the factors that account for stability and change in various aspects of personality functioning seems rather misleading. In which case, questions remain concerning the basic structure of personality; in other words, the bottom line is that the most widely accepted personality traits may be too exclusive. Essentially, the data would appear to suggest (i) personality traits are inclined to variance but are not exclusive; and (ii) personality traits are more stable in adulthood. Although, there is evidence of general trait stability, the limits of biological and social influence on change are yet to be determined.

However, any attempt to privilege one index of differentiation can be considered a kind of ideological over-claiming. Therefore, it is accepted here that the gender is neither determined by biological traits, nor by socially constructed traits, but that there

is a sex/gender dualism. Indeed, as shown, there is little consensus regarding a causal explanation of the emergence and establishment of gender. Similarly, although evidence in support of traits as a by-product of society exists, considerable doubt remains concerning the extent of agreement. What about athleticism? In athletics, too, it seems that most successful athletes probably need both biological determinism and the social environment to become so talented (Fitch, 2007). Without training and nurturing, athletes probably would not have much success; and without genetics, they would have had an even harder time. But the evidence is inconclusive. As a result, as with so many other aspects of trait research, part of the problem here revolves around what constitutes sufficient evidence in support of a statement concerning, for example, agreement between personality trait theory and gender determinism. In the current context perhaps the best consensus that could be offered is that we still have a great deal to learn about how genetics and society interact to shape the various personality traits of gender. Nonetheless, the implicit assumption that gender is no longer an arbitrary imposition on biological inheritance but is co-produced with that and social adjustment is worthy of note.

Clearly, this is a complicated issue, and conclusions about the linguistic, or even cultural, universality of personality trait theory would be premature. However, it is accepted that such discord partly depends on one's comprehension concerning – just what is a trait? In raising this question many trait psychologists distinguish between different kinds of traits. For example, Guilford (1975) highlights temperament traits, motivational traits, and attitudes, Cattell (1965) cognitive-ability traits, temperament-stylistic traits, and dynamic traits, and Allport (1937) expressive-stylistic traits and motivational traits. Perhaps the answer to this question therefore is as Murray (1938) and McClelland (1951) who explain a trait is a conceptual issue rather than a purely terminological issue, that is, trait theorists are not only concerned with definitional differences but also differences concerning conceptual status. So what, then, is the conceptual status of the trait concept? In their simplest form, traits are inferred from behaviours and are the basis for inferences to other behaviours (Tellegen, 1991). Yet, the concept of trait has been broadened beyond the implications of behaviour (McCrae and Costa, 1990). For example, it is clear that personality trait inventories refer to

attitudes, values, desires, and so forth as well as behaviour (Werner & Pervin, 1986). But to what extent is there consensus? McCrae (1991), who suggested no trait theorists has ever confined the term to a consistent pattern of behaviour, specifically defends this position. There is, as McCrae and Costa (1990:23) put it, “no reason not to include such other phenomena within the definition of trait”. Unsurprisingly, this view has not gone unchallenged – questions remain concerning the comparability of such other phenomena – because attitudes and values have a complex relation to behaviour (Pervin, 1994). To such disagreement we may add the suggestion by Goldberg (1990:21) “when one turns from single terms to multi-word statements, the picture is far less clear”. In short, the subtleties of language readily paralyse thought. In retrospect, Cooke (2001) posed the rhetoric – if the terminology is loose, so what? Over time, words come to mean what we want them to mean and everybody eventually understands the shorthand. But on the other hand, how can the trait concept that is supposed to be central to the definition of personality hold its head up if it does not really know what its own identity is? It seems we remain without conclusive answers to the two questions raised in relation to the definitional and conceptual status of trait. There is good evidence emerging to suggest that trait approaches generally assume that the trait in question is a behavioural predisposition common to many individuals that is stable, enduring, varying in amount across individuals, and that can be inferred through many indicators. But this definition is not perfect, and the analyses for the most part have been restricted to single-word adjectives.

A critical consideration of the evidence:

In approaching these issues, it is clear that personality trait theory is not the monolithic ‘structure’ some social psychologists would have us believe (i.e. Buss, 1989; Brody, 1988; Digman, 1990). Certainly, there does not appear to be the ‘consensus’ its adherents would suggest. Indeed, one of the arguments presented is that there are fundamental differences among those who consider themselves to be proponents of personality trait theory. In the words of Tellegen (1993:126) personality theory is at best “quasi-consensual”. What, then, is the nature of the discord and what conclusion or conclusions can be drawn? At issue fundamentally, is the trait conceptualisation of

personality. Consider for example, the widespread variations of the root concepts that exist in the literature; Bouchard, et al, (1990); John and Robins (1993); Loehlin (1992); Plomin, et al, (1990) amongst others, believe traits have genetic dispositions, whereas Mischel, (1968) and Pervin, (1978b) implore a learned approach and yet others that traits do not exist. Although disagreement exists, much has been said to support the claim that traits have a learned quality (Funder, 1991), a social construct: athletes are made and not born (Ruiz, 2005). Then there is the issue of trait stability over time, Brody (1988), McCrae and Costa (1990) and Roberts and Vecchio (2000) agree with the assumption of longitudinal stability whilst Pervin (1994) challenges the perpetuity. While accepting stability does not mean change is not impossible, any changes are unlikely to be large enough to deny stability (Buss, 1988). By implication, traits would be assumed relatively stable, enduring dispositions. It has also been suggested that trait definition requires a certain lexical and conceptual clarity. To paraphrase Pervin (1994), not only are there definitional differences among trait theorists but also differences concerning the conceptual status of the term. The issue here, then, is that most trait theorists specifically refer to behaviour in their definition of a trait (cf. Funder, 1991; John and Robins, 1993; Tellegen, 1991) but for some, the definition of trait has been broadened to include attitudes, values, desires and so forth as well as behaviour (McCrae and Costa, 1990; Werner and Pervin, 1986). In addition, many trait psychologists distinguish among different kinds of traits (see: Allport, 1937; Cattell, 1965; Guildford, 1975). Although Cooke (2001) and Goldberg (1990) have pointed to lexical parlance as the possible cause of this ambiguity – attitudes, values, desires and such other phenomena, as this research understands it, are typically viewed as more malleable than personality traits. That is, the configuration of personality traits that characterise an individual is much more resistant to transformation (Ajzen, 1988:7). The erstwhile factors are merely convenient abstractions with which psychology impedes the interpretation of personality trait theory (see: Allport, 1927; Kantor, 1924; Symonds, 1927). It appears that the conceptualisation has become far more focused. Therefore, for the purpose of this research, it is proposed to define the psychology of personality as the study of traits. The radical implication is that traits are by nature believed to be related to the underlying dispositions at the core of the personality. Consistent with this focus, the trait labels ‘instrumentality’ and ‘expressiveness’

employed by Spence and Helmreich (1978) to refer to the masculine and feminine domains, would retrospectively suggest genders are inferred from traits. And, if traits have a learned quality (a social construct) then gender is, as de Beauvoir (1973) implied, an agent which somehow takes on or appropriates that gender, and could, in principle, take on some other gender. Consequently, the concept of psychological androgyny has a personality that can be measured. And, if the construct of androgyny can be measured, so too, can the androgynous athlete.

If this were true, it would indeed represent an advance beyond earlier controversy. Other criticisms would still exist, but at least one could speak in terms of a consensus in that androgynous athletes could presumably exhibit personality traits, which are seemly measurable.

ANDROGYNY AS A UNITARY CONCEPT

Although the candour of this discussion may understandably offer encouragement and reassurance in androgyny theory, a major question of interest is whether we now assume androgyny as a unitary concept? This is an important question for research. In Worell's (1978:789) words, a major thread in androgyny theory and research concerns "the extent to which the characteristics measured by any of these sex-role scales reflect unitary traits or dispositions that are predictive of a wide range of behaviours, attitudes, and life-style choices". As an analogy, consider intelligence: psychologists have argued for decades about how to detect the 'real' intelligent person, yet it has been more fruitful, in terms of understanding the processes involved, to conceptualise intelligence as a composite of several functions rather than as a unitary phenomena (Sedney, 1989). At different times, intelligent, adaptive functioning requires mathematical skills, creative use of mechanical devices, and a clear understanding of written material, or quick learning. All these spheres constitute components of intelligence, overlapping but not necessarily the same, developed by different routes at different times. No single sphere can account for or represent the entirety of intelligence, thus 'unitary' is an unrealistic concept. So is this the case with androgyny? At the present state of knowledge, can any one single approach to androgyny or its accompanying measure profess to explain non-sex-typed behaviour? Is androgyny to be thought of as a summary term for a number of processes that must each be explored to provide a full understanding of the construct? In short is androgyny a rich, complex concept with many dimensions and possible implications?

At present, then, one may be left asking are we to assume a single measure can profess for, or represent the totality of androgyny (Worell, 1978)? In response to Worell (1978), Cook (1985) advises researchers to be careful to temper their conclusions about any given study in light of just what is measured by the particular instrument used in the research. Ideally, a number of objective data sources should be explored to establish these associations (Mischel, 1970).

Examination of the statistical properties of the measurement tools – internal consistency, test-retest reliability correlations among scales and correlation between

measures – can provide concise information about the measures' statistical independence (Cook, 1985; Heilbrun, 1981b). Estimates of the internal consistency of scale content, or homogeneity reliabilities for the BSRI, have generally been acceptably high (Cook, 1985). A sample of 561 male and 356 female undergraduates was studied to determine the psychometric characteristics of the BSRI (Bem, 1974; Doyle, 2003). Data from this sample reflected adequate internal consistency, with coefficient alphas of .86 for the *Masculinity* scale and .82 for the *Femininity* scale (Bem, 1974). The manual published in 1978 with some updated information on the BSRI reported internal consistencies between .75 and .90 (see: Sugihara and Katsurada, 2000). In 1981, Bem reported the internal consistency as .86 and .80 for the *Masculinity* and *Femininity* scales respectively. By the 1990s, experiments revealed internal consistency between .75 and .90 on the *Femininity* and *Masculinity* scales (Dyk and Adams, 1990). In a more recent investigation (Zhang, et al, 2001), the masculine and feminine items yielded high internal consistency (masculine $[\alpha] = .86$ and feminine $[\alpha] = .80$). Others, Berzins et al, (1978), Helmreich, et al, (1981), Hogan (1977) and Spence and Helmreich (1978) determined the range of the homogenous reliabilities for the BSRI from .78 to .88. The results suggest that the content area within the BSRI may not be uniform in nature, although the coefficients are acceptably high.

Test-retest reliability statistics on the measurements may generally be considered satisfactory for most purposes (Cook, 1985). The test-retest reliability for the BSRI within a sample of 28 males and 28 females over a *four-week* period is reportedly good, with correlations of $r = .90$ for both *Masculinity* and *Femininity* scores (Bem, 1974; Zhang, et al, 2001). For Dyk and Adams (1990), the test-retest reliabilities for *Femininity* and *Masculinity* scales were .75 and .90 respectively, again over a *four-week* period. While Sugihara and Katsurada (2000) yielded high reliabilities of .82 and .94 respectively among females and .89 and .76 among males. Meanwhile, Yanico (1985) reported the retest reliability over a *four-year* period of the BSRI as being .56 and .68 for the *Masculinity* and *Femininity* scales, respectively. Further support for the construct reliability of this measure has been provided by Ballard-Reisch and Elton (1992) who found the masculine ($[\alpha] = .78$) and feminine ($[\alpha] = .86$) reliability, and Murray (2000) who reported an overall alpha level of .81, were comparable to that

found in previous studies. Nunnally (1978:231) suggested that "one saves time and energy by working with instruments that have only modest reliability, for which purposes reliabilities of .70 will suffice". Nunnally (1978) adds that increasing reliabilities much beyond .80 is a waste of time with instruments used for social science. Therefore this research considers an $[\alpha]$ of .70 an acceptable minimum.

Statistical independence between the *Masculinity* and *Femininity* scales of any one instrument should be close to zero (Cook, 1985). Correlations between the *Masculinity* and *Femininity* scales are appropriately low, ranging from $r = .02$ to $r = .14$ (Bem, 1974). Wilson and Cook (1984) found a range of $-.34$ to $.09$ and Cook (1985) reported comparable results for the BSRI. Other studies that computed the intercorrelations separately by sex found the BSRI *M* and *F* scales to be somewhat positively correlated (e.g., Cunningham and Antill, 1980; Lee and Scheurer, 1983; Lubinski, et al, 1983; Nicholson and Antill, 1981; Spence, Helmreich, and Holahan, 1979). Failure to demonstrate statistical independence would not automatically indicate that the measurement is a faulty representation of the dimensions. Heilbrun (1981b) argued instead that masculinity and femininity might not be totally unrelated; this argument is consistent with present data. Thus, in general, the size of the correlation coefficients suggests that *Masculinity* and *Femininity* scales for the BSRI are imperfectly, but for most practical purposes, sufficiently independent. The BSRI appears to be focused in content.

Others have examined the construct validity of the BSRI (Carlsson and Magnusson, 1980; Sassenrath and Yonge, 1979) and findings have been generally supportive of the BSRI to measure femininity and masculinity. Sassenrath and Yonge (1979) found evidence using multiple correlation coefficients to support that ample internal validity existed for both the *Masculine* scale, $R = .96$ and the *Feminine* scale, $R = .88$. Carlsson and Magnusson (1980) examined the construct validity of the BSRI using a sample of Swedish men and women from different professions. They concluded that the construct validity of the measure is good, as *Femininity* and *Masculinity* scales reflected separate individual dimensions (i.e. correlations between the two scales were low, ranging from $r = -.15$ to $r = .17$; Carlsson and Magnusson, 1980). This study

illustrates the ability of the BSRI to detect masculinity and femininity as separate entities.

Blandard-Fields, et al, (1994) conducted a more recent validation study of the BSRI. A sample of 671 adult participants (age 18 – 91) provided self-ratings for BSRI masculinity and femininity items only. Researchers then used common factor analyses and structural equation modelling techniques on the data to develop a model of gender, age, and gender role. Results indicated only minimal gender and age differences in BSRI factors. Specifically, the structural regression model found that gender was a predictor of BSRI factors and was delineated in the study, but the magnitude of these standardised regression coefficients was weak. Similarly, with respect to age, findings indicated that although there were differences in endorsement of BSRI factors across the lifespan, the magnitude of these effects was relatively small. These findings indicated that the BSRI was a valid measure of gender-related personality traits for use with male and female participants of all ages. In short, Blandard-Fields, et al, (1994) study establishes that a wide variety of sample populations are accurate reporters of gender role, in that their responses to self-report measures of gender role are congruent with findings of studies of gender differences in behaviours. This implies there is little reason to believe an athlete sample should be any different. There is also other evidence to suggest considerable suitability of the BSRI for use across cultures (cf. Fontayne, et al, 2000; Holt and Ellis, 1998; Rao, et al, 1982; Rowland, 1977; Schneider-Dueker and Kohler, 1988).

In comparing the androgyny measures a major question is that of convergent validity: how similar is the BSRI scales from different measures that presumably measure the same dimension? One common method of exploring convergent validity of various measures is to compute the product-moment correlation coefficients between the corresponding scales (Cook, 1985). The median correlations for all possible pairs of major androgyny measures have been computed as .65 for the Masculinity scales and .53 for the Femininity scales (Wilson and Cook, 1984). Kelly, Furman, and Young (1978) reported mean correlations of .71 and .62 for Masculinity and Femininity scales, respectively. Correlations between the BSRI and ANDRO scales 'a second-generation

androgyny measure' (Berzins, et al, 1978) have been replicated with a number of different samples (cf. Berzins, et al, 1978; Gayton, et al, 1977). Correlations between the BSRI and Adjective Check List (ACL) or the California Psychological Inventory (CPI) scales appear to be lower, but are statistically significant (Baucom and Sanders, 1978; Small, Erdwins and Gross, 1979). Baucom and Sanders (1978) suggested that differences in androgyny measure construction may have lowered the correlations between the BSRI and ACL scales.

Other researchers have attempted to determine content similarity between the BSRI and other personality measures by grouping all items into a common pool and interpreting common factors that link the items from the various measures. BSRI scores appear to be at best moderately related to more traditional m-f measures (Bernard, 1981; Wakefield, et al, 1976), and may be meaningfully incorporated with dominance and self-constraint measures (Luninski, et al, 1981).

To summarise, the BSRI measure shares several basic assumptions about the nature of masculinity and femininity with presumably similar measures. Specifically, the BSRI is similar in its purpose and the types of scores it provides. Estimates of the measures' internal consistencies indicate that the content tapped by the individual Masculinity and Femininity scale is generally uniform in nature and scores from each scale also tend to be stable over time. As is generally assumed, the Masculinity and Femininity scales within the BSRI are generally independent from each other, as was desired. The scales from different measures that assess the same dimension were found to be positively correlated with that of the BSRI. Correlations with traditional m-f measures are small enough to indicate that the androgyny measures (*inc.* BSRI) are unique from these measures, which is also a favourable sign. Collectively, these observations suggest that the BSRI as an androgyny measure may be satisfactory according to statistically based standards for such measures.

Therefore is androgyny truly a unitary concept, as Worell (1978) implied? This is precisely the issue that cannot be definitively resolved. At this point, data generally point to its probability but are inconclusive. So why the ambiguity? This research

believes much of the present discussion can be attributed to semantics about the nature of unitary. As is often the case variations in characterisation reflect disagreement and confusion. The term unitary is often based on or characterised by 'unity' – 'the state of being one' (Encarta Dictionary, 2006). From this perspective, for Masculinity and Femininity, the constructs of the BSRI cannot be considered a unitary measure neither, therefore, can androgyny be viewed as a unitary concept. But unitary does not necessarily mean one but, moreover it means consisting of units. Consider the following etymological roots of unitary:

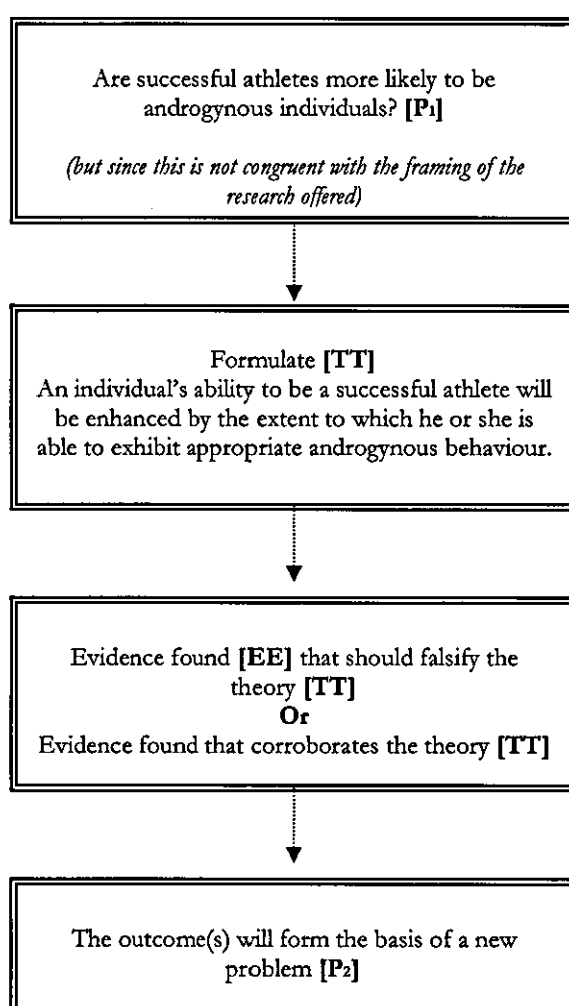
- (a) 'Of or relating to a unit,
- (b) Having the nature of a unit; whole and
- (c) Based on or characterised by one or more units' (Oxford English Dictionary, 2005).

As an example, one could appreciate marriage as unitary (the joining together ...etc), but two persons are needed for this to be achieved; so it is with androgyny. It is as though the term unitary stifles, rather than aids, comprehension. Perhaps, therefore, '*synergy*' may be a better fit alternative; that is, the sum of androgyny is equal to, or greater than the sum of masculinity and femininity. With this in mind, for this research the concept of unitary is not a helpful one; it is subject to the limitations and deficiencies associated with such concepts, as well as in ambiguities in the conceptualisation and execution of the research.

TOWARDS A THEORETICAL FRAMEWORK

It is against this background that this thesis is re-examining past formulations on sex-differences within a sport setting with a newly-critical eye, opened by the adoption of psychologically androgynous values about how the sexes could and ought to behave. What does androgyny mean to athletes? How is psychological androgyny received in comparison to other attributes? What are the consequences, *if any*, of having an androgynous gender-role identity? Are female athletes more susceptible to the threat of emotional disturbance? Is masculinity truly more suited to participation in, and performance of, sports? These questions form the focus of this theoretical framework.

So, you may ask, where is all this leading? Simply to this – the theoretical framework:



In this case, the research has a theory, or at least a tentative theory (TT). If such is not falsified (see appendix 1.1) (EE), it may provide a solution to the problem (P₁). The theory is that an individual's ability to be a successful athlete will be enhanced by the extent to which he or she is able to exhibit appropriate androgynous behaviour. Such a theoretical framework allows for the recognition of positive traits of both genders – the positive traits that are stereotypically associated with male and female – being necessary in order for successful athleticism. On the basis of this framework, the display of instrumental and expressive traits – androgyny – may explain the complex set of behaviours that constitute successful athleticism.

ANDROGYNY IN CONTEXT: A SUMMARY

Gender disparity has been part and parcel of athletics throughout its history and has been based on two implicit assumptions: that masculinity is naturally and inevitably more significant to athletic success than is femininity (Figler and Whitaker, 1995); and that it is unbecoming for women to indulge in certain athletic activities (Dyer, 1982; Griffin, 1987; Hall, 1988). But on what basis are these assertions made? The biological and medical differences (Hakulinen, 1996; Hargreaves, 1994; Laine, 1989a; 1996), which were used to explain, for example, the 15.28 per cent performance differential in the 100 metres in 1952, were clearly not sufficient explanation for this difference. Why, then, should they be regarded as sufficient for today's 9.45 per cent difference? Clearly they are not. Aspects of such inadequate explanation will not be unfamiliar to those involved in, and cognisant with, gender role theory. Social researchers such as Bem, Spence and Helmreich (1978) contend that the rigid demarcation of functions by gender-role stifled opportunity for men and women alike, thereby indicating the need for greater androgyny for both genders.

Indeed as Dyer (1982) reported, psychological androgyny would induce enhanced physical performance. Therefore is the successful athlete [male and female] not androgynous? Cockerill and Hardy (1987), Coakley and White (1992), Choi (2000), and Hargreaves (1994) contend that performance differences may also exist as a result of internal influences, such as personal goals, self-identity, self perception and even sociocultural contexts. Furthermore, Radford (as cited in Stafford, 1996), Bannister (as cited in Stafford, 1996), and Sailer and Seiler (1996) among others, deriving from a wealth of possibilities believe it is not psychological androgyny alone that accounts for the gender gaps and long-term performance trends between and within each sex. They cite wind, altitude, track surface, better nutrition, illegal drugs and changing social structures as potential influences. Consistent with such observations androgyny may not be the only reason for athletic success, but one of many constructs and therefore as likely a reason as any.

It is however understandable why the concept of *psychological androgyny* has generated a great deal of interest. Androgynous potential heralded the emancipation from rigid

gender-role demands: freeing men to enjoy the rewards of interpersonal relationships, and women to enter the competitive arena [e.g. athleticism] of significant achievement (Heilbrun, 1981). However, androgyny theory rests essentially on the proposition that androgynous persons (e.g. athletes) can presumably exhibit personality traits which are seemingly measurable. It is over-simplistic to generalise all the contributing factors concentrated on determining whether personality traits are merely vehicles of our genes – biological inheritance (cf. Bourchard, et al, 1990; Dunn and Plomin, 1990; Loehlin, 1992), or whether personality traits are a social construct – social theory (Mischel, et al, 1991), as it is necessary only to show parallel versions exist. But beyond this, the implicit assumption is that gender is no longer an arbitrary imposition on sex but co-produced with it and social adjustment. Consistent with this view the general consensus reached was that the concept of psychological androgyny has a personality that can be measured. Succinctly, personality traits infer gender, which allow for individual freedom to engage in both masculine and feminine behaviours. It can, thus, be argued that it is the psychologically androgynous person – that is, an individual who integrates both ‘masculinity’ and ‘femininity’ in their personality, an individual who can be instrumental and expressive as required – who would best have available the desired range of positive behaviours needed to be a successful athlete.

Little or no research (see figure 1.3) has been conducted in the competitive athletic arena linking the concepts of psychological androgyny and athletic success. In light of the considerations discussed, this research addresses specifically the theoretical issue of psychological androgyny and successful athleticism. But first, as Proctor (1998) cites, before any decision on research methods can be made, an understanding of research philosophy needs to be explored and understood (please refer to appendix 1.2 for a comprehensive understanding).

CHAPTER 3 – PSYCHOLOGICAL ANDROGYNY:

A CURRENT ATHLETE PERSPECTIVE

STUDY ONE PART (a)

The aim here is to examine the role of psychological androgyny in athleticism. It was not possible however to treat the study as a single undivided entity due to its extensive remit, thus for the purposes of clarity the study was sub-divided in three interdependent, but manageable parts. The first (part a) is the problem of examining the role psychological androgyny plays in the success amongst current athletes. The ability to rise to the occasion, to produce an optimum performance when it is most wanted and when the pressure is on, the tremendous determination, confidence in one's own abilities, tactical wisdom, all capped with an intangible personality strength have been widely documented in the study of athletics (cf. Choi, 2000; Coakley and White, 1992; Dyer, 1982; Hakulinen, 1996; Hargreaves, 1994; Laine, 1996; Sailer and Seiler, 1996). Clearly, the inherent conflict between the two major demands that athletics place on the athletes – the demand for a higher degree of control on the one hand, and the demand for a degree of flexibility on the other – require athletes to display a wide variety of behaviours (Cockerill and Hardy, 1987; Dyer, 1982; Hall, 1996; Spence, et al, 1975).

It was predicted that the 'psychologically androgynous' athlete, that is, one who endorses both masculine and feminine positive traits, would possess the desired range of behaviours that lead to success in athletic settings. Psychological androgyny is seen here as the blending of positive masculine and feminine characteristics within a given person.

Hypotheses

Generalising the research findings in other situations to sport, it can be argued that androgynous traits (high levels of instrumentality and expressiveness) are related to athletic success. Thus it is hypothesised:

- I. That instrumentality as compared to expressiveness in successful current male athletes would be markedly similar in their high scoring.

- II. That instrumentality as compared to expressiveness in successful current female athletes would be markedly similar in their high scoring.

And, if the relative importance granted to personal fulfilment is related to androgyny it is hypothesised that:

- III. Current male athletes' self-reported levels of personal fulfilment will be significantly higher than the other constructs under review.
- IV. Current female athletes' self-reported levels of personal fulfilment will be significantly higher than the other constructs under review.

Thus the design of study one part (a) aims to elicit that the successful current athlete should display androgynous traits, whilst account for males' seemingly considerable statistical superiority over women and, at the same time, females' relative slow and erratic, but quite noticeable, improvement.

PARTICIPANTS

The design of study one part (a) is such that a number of athletes currently involved in athletics were required for investigation. But questions as to whom exactly, which populace, what athletic discipline(s), and how still persist. These questions form the focus of this section

The first major methodological question in comparing and contrasting athletes in the measure of success over time is which sports event(s) to select for the basis of comparison? For example, the athletic field and track schedule has numerous events ranging from 100 metres to marathon distance, from long jump to high jump, to choose from. It has also been suggested that gender performances differ dramatically between events (Sailer and Seiler, 1996). Women, for instance, have won Olympic gold medals in open competition against men in events like yachting, equestrian, and shooting. On the other hand, the gender performance difference in the shot put is close to 100% (Sailer and Seiler, 1996). So any analysis concerning gender performance difference is specific to the event studied. So the favoured event must be gender atypical, performance correlative and preferably individual as opposed to team status.

The most obvious and simplest analysis that has these characteristics is athletics, and more precisely running, which is particularly intriguing because it is possibly the closest to a universal sport. For example, more countries enter athletics (i.e. track and field) in the Olympics than any other discipline (Sailer and Seiler, 1996), and more nations win medals in athletics than any other discipline (Sailer and Seiler, 1996). Furthermore within athletics, more nations compete in running events than in the more specialised field events, and more Britons are actively involved in running than in any other sport (Mintel Report, 2003; Sailer and Seiler, 1996). Thus, track (excluding field events, as the focus is on running) for the purpose of legitimate contrast, is the most appropriate choice for an extensive experiment in understanding the differences between the sexes. Of course, to facilitate discourse, only comparable races where males and females compete under exactly the same rules are eligible. For example, the study excluded all

hurdle races, as the high hurdles are different distances for men and women (110 metres vs. 100 metres) and the hurdles are set at different heights.

The problem with this approach however is that there appears to be a pronounced paradox: on the one hand, gender performance differences appear to be linked to the length of the race (Sailer and Seiler, 1996). For example, the sprint disciplines consistently have the smallest time difference across all track events. As Dick (1993) explains, it is the sprint disciplines where the focus of achievement in terms of improved performance and/or in terms of defeating opponents is measured in tiny time increments: increments of personal performance improvement may be as small as 1/100th second. As Michael Johnson (1996:xviii) once voiced “success is found in much smaller portions than most people realise”. In contrast, the 5,000metres or 10,000 metres frequently have notably larger time differences. Yet paradoxically, it is the sprint differences that are most pronounced (see Figler and Whitaker, 1995), and for that reason the field of interest within this study.

The second major methodological question is whether the sprints themselves can be postulated as one entity. The sprints cover the following track events: 100metres, 200metres, 400metres, 100metre relay and the 4 x 400metre relay. Each sprint encompasses – acceleration – speed – maintenance – deceleration to varying degrees (Blockburger, 2003), but this is where the similarities end. Although the relays go through this process, due to their team event status (Dick, 1993) it would be erroneous to include them within the parameters of this research. Aside from the distance covered, the 400metre sprint is arguably the least alike of any of the remaining sprints. As the International Association of Athletics Federation (IAAF) (2003) explains, athletes are simply not made to sustain near-maximum speeds for more than 30-35 seconds. At that point, runners really feel the effects of oxygen debt – the muscles literally are running out of their oxygen fuel. Of course physical strength is only part of it; 400metre runners require real psychological strength to push themselves beyond an abnormally high pain threshold (IAAF, 2003). As a consequence, to a predominantly 200metre athlete, the 400metre event looks like a marathon! It has even been dubbed the ‘man killer’ (IAAF, 2003). This is not to say that a 200metre

athlete cannot be a 400metre athlete or vice versa, by way of example, Michael Johnson the dual event Olympic and World records holder, but even Johnson (1996) accepts that he is probably the exception rather than the rule. In contrast, many more 100metre athletes compete at 200metre events and vice versa. Dick (1993) and Sailer and Seiler's (1996) critiques of the 400metres noted other factors that distinguish it from its 100 and 200metre counterparts. Firstly, 400metre performance tends to hinge upon '*reserve speed*' a concept, which denotes the ability to maintain accelerated speed for an exorbitant period of time, "...you hold on and scramble to the finish" (Johnson, 1996:214). This reserve speed ultimately means a more conscious emphasis on the *lifting* as opposed to the *driving* technique on behalf of the 400metre athlete. In short, as Johnson (1996) denotes, the 400metres is technically different to the other sprints and as a result requires a different psychological appreciation. Secondly, as Hoffman (2002) reported, all sprints are subject to wind turbulence, however due to the cyclical nature of the 400metres, the impact of the wind tends to be more pronounced than that for the shorter disciplines. Lastly, the time differential between the 400metres and the shorter disciplines means that it is possible to have a slow 400 start and still win, that does not happen in the 200metres (Johnson, 1996). It is acknowledged that these conspicuous distinctions in 400metre running require a different psychological readiness not conducive for the shorter distances (Parker, 2002). For all these reasons the 400metre sprint does not lend itself to ease of correlation, and thus has not been used for comparative purposes in this study.

A consequence of this acceptance is that the 100 and 200metre sprints are the only events eligible for inclusion, but aside from the distance covered, are they conducive for correlation purposes? Like the 400metre runners, the 200metre sprinters must negotiate a bend. On the other hand 100metre athletes are concerned only with a rectilinear distance. Thus conventional wisdom would suggest that the disciplines are unmistakably at variance, but how incomparable is negotiating a 'bend' to rectilinear sprinting? Such inference seems to contradict the many 100metre athletes that compete at 200metre distance and vice versa. In the IAAF's (2003) view, 200metres running is differentiated inasmuch as the athlete must combine the basic speed of the 100metre sprinter with a running technique that allows for centrifugal forces (restricted

length of stride and rate of cadence) when sprinting around the bend. As Verband (1992) surmises the first 100metres can not be run as fast as the straight 100metres because of the curve, the difference in time may be up to 0.3seconds. In response, Dick (1993) rejects that it is the events that are at variance (aside from distance covered) but the athletes themselves. Under this assumption, the negative consequences the bend poses the 200metre sprinter (e.g. centrifugal forces) impinges upon the extent to which the challenge is perceived. For Nideffer and Rembisz (1996) it implies a zero difference unless the athlete wants it too. After all, a winning athlete is never heard to complain of the restricted length of stride and rate of cadence, therefore, whether negotiating this sideways torque represents a different psychological preparation is a matter of opinion.

A separate but relative issue concerns the technique and race strategy requirement for each discipline. According to the IAAF (2003) the sprinter's goal is to develop the highest possible horizontal velocity (maximum speed). As an example this velocity is developed in the 100metre sprint within 43-46 strides (men) and 47-52 strides (women), or between 60-90metres (IAAF, 2003). The distance remaining is distinguished by reserving speed to the finish. Conversely, velocity is developed in the 200metres at similar intervals but the greater distance remaining means it is distinguished by having less deceleration towards the finish. This implies a progressive decrease in speed over the second 100metres (IAAF, 2003). In other words, a greater demand is placed upon the body's energy reserves because of the doubled distance of the 100metres, this results in an accumulation of lactate which means that the 200metres can not be run at maximum speed. Beyond this, the influence of the start and acceleration phases is not quite as dominant in the overall 200metre performance as in the 100metre sprint. While much is made of the relative difference in race strategy, central to both sprint developments is a sound sprint *striding* technique (Dick, 1993). As Dick (1993) and Lindeman (2004) maintain, the sprinters stride length is for the most part undifferentiated between the sprints. Furthermore, as both sprints are classified as anaerobic disciplines, then neither is free from lactate tolerance (Lindeman, 2004; Sailer and Seiler, 1996). Finally, in focusing solely on race strategy, which tends to converge on the decisive finishing phase, the IAAF has failed to

acknowledge other comparisons. For instance, both disciplines require a foundation of specific strength, mobility and endurance and mastery of the *stride* technique (Dick, 1993), therefore, is there reason to believe that psychological readiness differs between 100 and 200metre sprints?

For both of these views, a series of assumptions is generally accepted. These assumptions address the nature of the dimensions of sprinting, and their implications for comparison. On one level, it is assumed that the 200metres may lead to sideways torque, which the sprinter must compensate and which occasionally leads to speed reduction. In contrast, 100metre athletes are concerned only with a rectilinear distance. A corollary of this assumption however is that the disciplines are independent but not mutually exclusive. Others (Dick, 1993; Nideffer and Rembisz, 1996) look past the obvious differences and challenge the authenticity of contrast. More generally, the effects of acidity levels, technique, and race strategy were acknowledged as decidedly unambiguous, but, are they conducive for correlation purposes? A truly 'successful unification' may well have many fewer basically inconsequential differences between the disciplines, but limiting the comparability of sprinting to such a lack of meaningful difference seems to be unnecessarily restrictive. This study will therefore incorporate both 100 and 200metre sprint disciplines as the bases for analysis.

The third major methodological question, is which 100 and 200metre sprint athletes should constitute the focus of interest? An obvious choice would be to research American athletes who currently hold the 100 and 200metres World and Olympic records, for both sexes. Moreover, psychological androgyny, the concept under investigation was pioneered in America. For this proposition to work however, two assumptions must be made. First, that there is close correspondence between the researcher and the athletes of interest. Second that the athletes of interest have expressed their desire to partake. Of course the researcher might wish for this kind of opportunity but the fact is athletes of such repute are generally unapproachable. This attitude constitutes a mode, which is understood to conform to an image of *celebrity* no less strong in contemporary Britain than in America. This might well preclude

research in professional or even international athletics, but it need not preclude club-affiliated athletes, for not all athletes subscribe to the *celebrity* ideal. It seems unfair to taint all international athletes in the same breath; however, if Constantinople (1973) is right that psychological androgyny is seen as a 'fuzzy and muddled' concept, there may appear to be a special reason for maintaining the status quo. Basically this research is interested in a well-rounded understanding of psychological androgyny. Without meaningful representation and opportunity for candid discussion to address a simple lack of knowledge can one assume complete comprehension? This too seems unfair. Perhaps a sound argument could be made that the given topic area reframe the concept toward a more acceptable ideal. There is nothing intrinsically immoral in redefining the focus, while it does not alter the meaning, but, does it accurately represent what is not known about the research, or are some revisions necessary? In no small degree, a well-rounded understanding is as much about the information omitted as the information provided. In this case, revision is communicated via technology, which removes the personal assumptions, and heightens the inconveniences. Thus there is a reason, or at least justification to refrain from contacting international athletes. In this view, it would seem more helpful to have athletes who are based in Britain, but only athletes who refrain from participation with those who subscribe to the *celebrity* ideal. Thus for this research purpose, the focus of interest will be British club affiliated athletes. Under this acceptance, a number of research assumptions can be readily distinguished. First, British club affiliated athletes are no less determined, or have less technical or tactical advantages than their *celebrity* counterparts but as Nideffer and Rembisz (1996) identified, there's no substitute for natural talent, and for being in the right place at the right time. Second, correspondence between the researcher and athletes of interest is well established. Third, the athletes of interest have voluntarily informed their consent to partake. Finally, the negative consequences of under-representation to aid comprehension have been addressed.

The question of which era of athletic focus to consider for investigation, has yet to be determined. Perhaps for clarification purposes therefore, the most prevalent selection would be the current wave of athletes. A distinct value orientation is apparent here:

the athletes are readily accessible; voluntarily available; many in number and club affiliated. Another reason which may be thought to qualify the current wave of athletes is their timely intervention as the 'second running boom' (Kardong, 1998). According to Kardong a former Olympian and regular columnist for *Runner's World Magazine*, this 'second running boom' is taking place about thirty years after the original boom of the 1970s, but, is seen to converge more on women's involvement in athletics (Kardong, 1998), making this an ideal sample in which to commence. This, study is therefore based on what sets apart those 100 and 200 metre club athletes of today who are successful, from those who are not.

This, of course, raises the question of what is success. It can be argued that, by the very fact of having attained their present club status, it can unequivocally be stated that these athletes are successful in their discipline, however, 'there is more than one way to define success' (Headapohl, 2000). To Nelson (2001) for example 'success is the accomplishment of goals and objectives necessary to achieve a particular task', but success is not a condition. It is not a stabilised, permanent state of achievement. There are no universal measurements, therefore, an appreciation of success implies constant motion. In short, 'success' is however people define it. For example, some athletic clubs post qualification times for affiliation (achievement success), others have an accreditation list (certified success) while others still, charge membership fees (bought success). Accordingly, success is subjective. It can thus be argued that the integrity of the term 'success' is always subject to criticism, irrespective of conditions of implementation. In order to acknowledge this prejudice, success is accounted for in a manner befitting an unobtrusive approach. That is, the athletes themselves largely dictate the conditions for the term success, as each athlete knows only too well the tremendous emotional difference between finishing first and second (Nideffer and Rembisz, 1996). Success is not just defined by wins and losses; it is also defined by what it takes to be successful. Therefore the objective criterion for a successful athlete taken here is: (1) Compliance in practice and spirit with British Club affiliated policies and rules⁵. (2) Athleticism as measured by successful competition at the highest club

⁵ Renowned for its insistence on a high moral code of honour and personal accountability.

level⁶. (3) The insistence on a minimum of three years British Club affiliation⁷, at least one of which *is* dedicated to the pursuit of national success⁸. The exclusion criterion - any athlete non-compliant with the basic principles outlined. The proviso therefore requested athletes under study to be presently a member of, a *successful* British club affiliated 100 and/or 200 metre-sprint athlete as informed.

In closing, it is worth repeating the major positions, which have been taken in this part of the study: First, the athletic discipline of sprinting provided the field of interest, by reason of its universal appeal and accolade status. Second, the 100 and 200metre sprints have foremost provided the focus of this initial study in default of meaningful difference. Third, the population of interest is British Club affiliated athletes, on grounds of ease of correspondence and voluntary consent. Fourth, this study considered those athletes of the second running boom, the current wave of athletes. Finally, this research's focal point is grounded in what sets apart those British Club affiliated 100 and 200 metre-sprint athletes, who are, *successful*.

⁶ Considered by many as a minimum benchmark of athletic success (e.g. Ruth Walton, Former Development Coordinator, UK Athletics).

⁷ I simply wanted to ensure that the athlete had knowledge and practice of the role.

⁸ I purely wanted to see a measure of ambition rather than complacency.

SAMPLE SIZE & APPROACH

Consistent with the procedure preferred in most androgyny research, sampling approaches are an acceptable means for syntheses and analyses. A sample was required that matched with, and allowed for, reference to the survey population (i.e. successful British Club affiliated 100 and 200metre-sprint athletes). In this way, the sampling procedure is intended to represent the total survey population.

Considering the case of this study: From an aggregate of 1,430 British athletic clubs a representative sample of three hundred was chosen. The time and potential cost of travelling to and interviewing such a sample would be immense, therefore, using multi-stage sampling, these problems can be overcome without compromising the accuracy of the findings (Kumar, 1999; Saunders, et al, 2003). In the initial stage then, the geographical area (Britain) was split into discrete subareas (regions, see: www.british-athletics.co.uk), numbering forty-seven in total. These formed the sampling frame. After numbering each region with a unique number (the first is numbered 0, the second 1 and so on), a small number of regions were selected using simple random sampling (systematic sq. root method). Since each club is located in a region each has an equal chance of being selected for the final sample. As the regions selected were still too large the selected regions were subdivided into representative territorial associations (clubs), which form the next sampling frame to allow for likely important variations in clubs between regions. After numbering as described, a small sample of relevant clubs were selected using stratified random sampling by type (e.g., AA, AC, AAC, RC, RRC). Within each selected club, the athletes interviewed were stratified (by gender) prior to simple random selection of the sample of athletes.

A concern with such a technique is that it may reduce the representativeness of the sample and question the validity and reliability of the research findings. Kumar, (1999:160) and Saunders, et al, (2003:168) provide sound advice in order to minimise the impact of selecting smaller and smaller subgroups on the representativeness of the sample to maximise precision – “apply as much stratification as possible within each stage of selection”. Furthermore, *The Economist* (1997), Siegal and Castellen (1988) and Wright (1997) recommend a minimum number of thirty for statistical analyses to be

performed representatively. This of course is based on the assumption that the relative sample selected exceeds a minimum number of thirty. If this is not the case, then Kumar (1999) and Saunders et al, (2003) advocate the further selection of a proportion of athletes in a like manner can then occur, until the requisite sample has been satisfied, without affect to either the accuracy or indeed the outcome of the study findings.

QUESTIONNAIRE DESIGN AND CONSTRUCTION

It is the intention of this study's questionnaire (please refer to appendix 1.3) to collect data on respondents' under three distinct modules: demographics, self-concept and achievement.

To commence the study an introductory module was created to obtain demographic information from the athletes participating. This module consisted of questions one and two assessing factors: gender, and era of participation. The first question on gender was dichotomous in nature whilst the second question was designed so that each respondent's answer was fixed from a choice of era. This gave an indication of the degree of attention focused on psychological androgyny in the measure across demographic factors of interest. In this case, it was useful to test the extent to which psychological androgyny was appreciated by both genders.

The second module employed the use of the SBSRI (for a comprehensive discussion on the authentication, scoring and classification of the SBSRI please see appendix 1.4). Each of the ten masculine (aggressive; assertive; defends own beliefs; dominant; forceful; has leadership qualities; independent; strong personality; willing to take a stand, and willing to take risks) and feminine (affectionate; compassionate; eager to soothe hurt feelings; gentle; sensitive to the needs of others; sympathetic; tender; understanding; warm, and loves children) adjectives outlined in the SBSRI was listed in an arbitrary fashion, constituting question three. In this way all of the adjectives were subject to self-rating on a 7-point scale, ranging from '*never or almost never true*' to '*always or almost always true*' to indicate the degree to which each trait describes him or herself. For each concept a scale score created by combining the scores for each of the rating questions represents the resultant scale. In effect, requesting respondents to rate themselves against a series of personal characteristics that depicted their instrumental and expressive orientation within a successful context (i.e. athleticism).

In addition to the BSRI short form, the third module simply requested the athletes [*both male and female*] to try and identify where psychological androgyny fitted in a framework for achieving success. For example, it is difficult to imagine psychological

androgyny having a more influential role than motivation. It would clearly be a fallacy to infer that psychological androgyny is the unique solution to the achievement toward athletic success. No other alternative is considered. Perhaps the fundamental conceptual structure of the notion of psychological androgyny as the combination of masculine and feminine, male and female – leads to performances of which relatively moderate physically and physiologically endowed athletes wouldn't normally be thought capable, but thought should be given to asking whether this is the case, not simply assuming, *a priori*, that it will happen eventually. From this premise, constructs which included personal goals [i.e. intrinsic and extrinsic], self-identity [how physicality is perceived and experienced], self-perceptions [feelings of personal importance or synthesis with self] and recognition [acceptance and encouragement] were selected in addition to psychological androgyny (that is, as a measure of the relative importance granted to personal fulfilment as denoted by Allgeier, 1975; Block, 1973; Olds, 1981; Olivares, 1991, amongst others) for the basis of comparison. Although such constructs of achievement have been reported within this research as being more feminine intuitively applicable, presumably achievement constructs do not differ significantly for male subjects. Moreover, it is unreasonable to think that, in some *a priori* way, a set of inclusive achievement constructs would be selected. In principle, there is no decision procedure available, which would allow the selection of any finite set of achievement constructs in advance. In which case, the option of *another* was made available to allow athletes to add one other construct. In such circumstance, where the research intends to use a series of statements, Dillman (2000) advises the same order of response should be kept to avoid confusing the respondent. From this perspective each of the achievement constructs were subject to self-rating on a 7-point scale similar to the SBSRI as devised by Bem. In general, Kervin (1999) found that researches attempting to rank more than seven or eight statements caused confusion among respondents, so the ranking list should be kept to this length or shorter. Hence, the list consisted of six (i.e. personal goals; physical appearance; self-esteem; public-esteem; personal fulfilment) achievement constructs including the catch-all construct of '*other*'.

PROCEDURE FOR QUESTIONNAIRE ADMINISTRATION

The UK Athletics register provided an initial sampling frame of 1,430 affiliated clubs, however, on closer examination, 164 of the affiliated clubs were not applicable either due to closure or deemed untenable (e.g., Barclays Bank AC). A new sampling frame of 1,266 affiliated clubs void of defunct clubs was devised and approved by Bill Adcocks of UK Athletics and cross-referenced with British-Athletic archives. Despite the readjustment to the sampling frame, the original representative sample of three hundred clubs was deemed appropriate. A larger than required sample merely minimises the affect of non-response related problems (Saunders, et al, 2003). By, adhering to the guidelines set out in the sampling strategy an initial selection of three hundred clubs were randomly chosen. Through the use of multi-stage sampling the representative sample of three hundred athletic clubs were geographically sectioned (i.e.47) until a refined and more accountable six regions (Humberside, Cheshire, Staffordshire, West Midlands, Hertfordshire, and Hampshire) were selected randomly (systematic sq. root method). As it transpired, these geographical regions represent some of best known and established athletic clubs in Britain (e.g., Birchfield Harriers, East Cheshire Harriers and Tameside Athletic Club, Shaftesbury Barnet Harriers). From here, the Honorary Secretary and County Association (www.british-athletics.co.uk/clubs/index/htm) of each of the six regions was contacted to establish the regions affiliated athletic clubs, and an aggregate of 167 (13% of total club sample) was tallied to form the next sampling frame. A process of stratified (type stratum) random sampling ensued, which identified eighty-five (51%) possible clubs for final selection. For each club, the Club Secretary and head coaches were contacted for permission to administer the questionnaire to the athletes. Thirty-two clubs responded agreeably and were thus included in the research. An athlete database of 168 potential respondents was identified. The total survey sample of athletes was stratified according to gender and then subject to enquiry, so as to examine for highlighted associations. In attempting to divide the subgroup of interest a notable discrepancy between male and female representatives transpired, which was similar for every club surveyed and appeared to be reflective of sprint athletics in general. As Robson (2002:317) notes, "in some instances the relative sizes of different strata mean that, in order to have sufficient data for comparative analysis a perspective of *analytical reflection*

on the processes of selection is required". Here, the choice is between the different sample sizes being taken into account when aggregating data from each of the strata to obtain an overall picture, or restricting the sample to equal representations (Saunders, et al, 2003). It is a trade-off between the amount of precision lost by using equal representation and the amount gained from a disproportionate sample size (Saunders, et al, 2003). As a consequence, it was felt in this case to make a meaningful comparison the minimum number requirement of the smaller strata must be reflected in that of the larger strata for ease of analytical comparison (DeVaus, 2000). For this reason an equal stratum of 30 male and 30 female club athletes were selected.

The questionnaire based on the BSRI short form, which is a validated test instrument designed specifically for empirical research on psychological androgyny was used for the research (see appendix 1.4). Participants were informed that the surveys were anonymous and that the questionnaires could not be linked to any individual. Participants received both verbal and written instructions and were asked to read items carefully and respond honestly to each item or question. Covering letters were attached to each questionnaire explaining informed consent and noting that participation was strictly voluntary.

PILOT SAMPLE

Following the advice of Dr. Andrew Roberts (Head of Internal Research, University College Birmingham), and Dr. Bromley Kniveton (PhD. Supervisor, Loughborough University) the time necessary to complete the questionnaire was ascertained; the ease of completion adjudged; the most efficient way to approach respondents to ensure co-operation advised and the correlation of responses for internal consistency approved.

To test, Fink (1995b) advised a minimum of ten recipients to successfully pilot test, therefore, in order to conduct a pilot as advised a group of ten athletes from University College Birmingham Athletics Club were piloted. Approximately four weeks (cf. Bem, 1974; Dye and Adams, 1990; Zhang, Norvilitis and Shenghua, 2001) after the initial pilot, the same group of athletes under similar conditions were again piloted. In this way, their responses provided an indication of the reliability and suitability of the questionnaire, whilst minimising potential uncertainties. University College Birmingham AC was selected on the basis of convenience.

RESULTS (a)

The results of the study do tend to offer some support for the hypotheses. They suggest that current athletes are indeed likely to be androgynous. Data was analysed by comparing levels of current athletes’ instrumentality and expressiveness, within sexes using the Bem Sex Role Inventory short version (SBSRI). Internal reliability for the Masculinity and the Femininity scales, as measured by Cronbach’s alpha, were .86 among the male athletes and .82 among female athletes. Further, as mentioned earlier, the BSRI and short form treats the Masculinity and Femininity constructs as logically independent, and for these to be empirically independent as well one would expect a low correlation between them. For this study, the coefficient of correlation between the Masculinity and Femininity scales was satisfactory ranging from .009 to .208 for the current athletes sample.

Hypothesis 1: That instrumentality as compared to expressiveness in successful current male athletes would be markedly similar in their high scoring.

Table 1 –
Current Male Athletes score means for Instrumentality and Expressiveness scores

<i>Current Male Athletes</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Instrumentality	30	52.70	6.70	
Expressiveness	30	51.13	7.89	0.411

Insignificant p >0.05

A t-test conducted revealed that possession of relative high and equal degrees of instrumentality and expressiveness do not significantly differ in the current male athlete. In other words, the current male athlete endorses those positive personality characteristics ascribed to androgynous classification.

Hypothesis 2: That instrumentality as compared to expressiveness in successful current female athletes would be markedly similar in their high scoring.

Table 2 –

Current Female Athletes score means for Instrumentality and Expressiveness scores

<i>Current Female Athletes</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Instrumentality	30	50.1	11.7	
Expressiveness	30	51.6	10.3	0.616

Insignificant $p > 0.05$

A t-test conducted revealed that possession of relative high and equal degrees of instrumentality and expressiveness do not significantly differ in the current female athlete. The conclusion here was the same as that for the first hypothesis. It was determined that current female athletes who are successful tend to be androgynous.

If the relative importance granted to personal fulfilment is related to androgyny, it is hypothesised that:

Hypothesis 3: Current male athletes' self-reported levels of personal fulfillment will be significantly higher than the other constructs under review.

Table 3 –

Male Personal Fulfilment as an Indicator of Athletic Performance

<i>Athletic Constructs (Male)</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Personal Fulfilment	30	6.167	0.913	
Public Esteem	30	5.10	1.24	0.000*
Self Esteem	30	6.067	0.907	0.672
Personal Appearance	30	5.70	1.12	0.082
Personal Goals	30	6.20	1.10	0.899

**Significant $p < 0.05$* *Note: In each instance the constructs are tested with personal fulfilment.*

A series of t-tests conducted revealed that personal fulfilment was significantly higher than the public esteem construct only. Compared to the other constructs no significant difference was determined. This means that successful current male athletes consider androgyny no more or less indicative of athletic success than the other constructs under review.

Hypothesis 4: Current female athletes’ self-reported levels of personal fulfillment will be significantly higher than the other constructs under review.

Table 4 –
Female Personal Fulfilment as an Indicator of Athletic Performance

<i>Athletic Constructs (Female)</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Personal Fulfilment	30	6.100	0.960	
Public Esteem	30	4.93	1.28	0.000*
Self Esteem	30	5.80	1.35	0.326
Personal Appearance	30	5.50	1.41	0.059
Personal Goals	30	6.23	1.07	0.614

**Significant $p < 0.05$*

Note: In each instance the constructs are tested with personal fulfilment.

A series of t-tests conducted revealed that personal fulfilment was significantly higher than the public esteem construct only. Compared to the other constructs no significant difference was determined. The conclusion here was the same as that for the third hypothesis. It was determined that successful current female athletes consider androgyny as comparable as the other constructs under review.

On further enquiry, analysis of whether current female athletes are more likely androgynous than male athletes was by means of the chi-square test. In the successful current female athlete sample, 20 per cent were classified as androgynous as compared to 16.6 per cent in the current male population. A chi-square test conducted revealed the difference, however, as insignificant ($X^2 = 0.671$, d.f.1, $p > 0.05$), thus providing evidence that current athletes generally are androgynous.

Table 5 –
Mean Sex-roles scores as Percentages

<i>Sex role defined by a median split</i>	<i>Male Athletes M=51.9</i>	<i>Female Athletes M=50.9</i>	<i>Mean % Combined</i>
Androgynous	16.6%	20%	36.6%
Masculine	15%	11.6%	26.6%
Feminine	8.33%	13.3%	21.6%
Undifferentiated	10%	5%	15%

Note: N = 30

Note: Medians were calculated on the basis of a single combined sample for each sex

A simple frequency count would appear to substantiate this conclusion, 22 athletes were androgynous (n=10 male, 12 female), 16 athletes were masculine (n=9 male, 7 female), 13 athletes were feminine (n=5 male, 8 female) and 9 athletes undifferentiated (n=6 male, 3 female). The higher levels of androgynous scores indicate the extent to which successful current athletes are seen to endorse androgyny. Nonetheless it is worth noting the prominence of masculinity and to a lesser extent the occurrence of femininity which seemingly provides challenge to the tentative theory of androgyny as an athletic ideal.

DISCUSSION (a)

The results of this initial study part (a) offered support for the prediction that the 'psychological androgynous' athlete, that is, one who endorses both masculine and feminine positive traits would possess the desired range of behaviours that lead to success in athletic settings. Study one part (a) also suggests that to succeed in a clearly male-orientated environment (Women's Sports Foundation, 1995), such as athleticism, current athletes need a high level of stereotypically 'masculine' characteristics, a conclusion rather similar to that reached by Mills and Bohannon (1983) in their study of sport-focused related research, where only 10 percent of whom were classified as feminine. This was consistent with the works of Colker and Widom (1980), Myers and Lips (1978), Spence and Helmreich (1978), and Williams and Miller, (1983) amongst others. The findings of this study also concludes that successful current athletes need a high level of stereotypically 'feminine' characteristics, a conclusion seemingly at odds with much of what little sport-focused related literature exists. The comparisons of male and female current athletes, masculinity scores means (52.7 and 50.1, respectively), and femininity scores means (51.1 and 51.6, respectively) indicate that, in terms of endorsing masculine and feminine characteristics, the personality profiles of successful current male and female athletes tend to be remarkably similar. A chi-square test conducted confirmed their relative likeness ($X^2 = 0.671$, d.f.1, $p > 0.05$). Thus, in a general sense at least, both male and female current athletes are just as likely to be androgynous. This result does suggest that, masculinity is important for the success of athletes and that this is in combination with the maintenance of a high level of femininity.

The pattern of findings in the frequency count found 36.6 per cent of successful current athletes classified as androgynous, 10 per cent more than those classified as masculine and 15 per cent more than those classified as feminine. Thus providing evidence that a higher proportion of successful current athletes are androgynous (more than one in three) as compared to either masculine (approx. one in four) or feminine (closer to one in five). Nonetheless the only conclusion that could reasonably be drawn from these data is that androgyny is more of a contributing factor to athletic success than either masculinity or femininity.

Finally, this initial study also notes mixed results for the relative importance granted to personal fulfilment. It was found that aside from the public-esteem construct, current athletes considered androgyny no more or less indicative for athletic success as compared to personal goals, self-esteem, or personal appearance. It would seem that there are many factors which may also have a part to play.

Although this initial study suggests that psychological androgyny might contribute to the success of current athletes, some limitations are worth noting. First, the evidence was inconclusive as athletes also reported masculinity and to a lesser extent femininity to be a factor in athletic success. Second, it transpired that relative importance granted to personal fulfilment was no more or less indicative for athletic success than other constructs under review. Third, the data in this study are concentrated on current athletes only; no relationship between androgyny and performance improvement can be confirmed. Fourth, despite the significant relationship found between current athletes and androgyny across genders, the association of androgyny and athletes along established career paths is less clear. How then is the concept related to athletic performance of athletes across their career paths?

CHAPTER 4 – PSYCHOLOGICAL ANDROGYNY: AN EX-ATHLETE PERSPECTIVE

STUDY ONE PART (b)

The preceding discussion developed the argument that an individual's ability to be a successful athlete would be enhanced through wont of androgyny theory. However, the major shortcoming in this discussion is the lack of recognition as to whether the concept of androgyny is meritorious in the performance across established career paths. In other words, even though androgyny is evident in athletic success now, can it explain men's seemingly superior if somewhat indifferent performance (Matthews, 2002), and women's exponential performance improvement (cf. Matthews, 2002; Toohey and Veal, 2000; Ward and Whipp, 1990) over the past three decades. Accordingly, in this study part (b) an attempt to evidence levels of androgyny to the performance of athletes across their careers was induced by reviewing ex-athletes. In a survey of men and women ex-athletes, were there only men who were optimally equipped for behavioural flexibility and corresponding adaptability to a variety, range, and complexity of athletic contingencies; that is, psychologically androgynous individuals? Could this then explain the succeeding years surge of improvement in women and, men's more subdued performances? Attention to the performance improvement was encouraged by instructing the athletes, during assessment, to focus on the recall of personality attributes at that moment in time when they were most successful in athletics.

It is of course imperative to appreciate that in recalling relevant past experiences during research is fraught with ambiguity because participants tend to think about past experiences and base their prediction on a scenario that portrays the progression of the present to the future, rather than the past to the present (Lovallo, et al, 2003). This is because the distortions of reality according to many researchers occur because of the errors in the way people process information (Buehler and Griffin, 2003; Buehler, Griffin and Ross, 1994; 2002; Weinstein, 1980). Specifically, the lack of certain information needed to make accurate recounts of past experiences tends to introduce this error. So the question is how do we overcome this problem? Weinstein (1980)

argues that to visualise past personal experiences may provide a mechanism that Tversky and Kahneman (1973) called 'availability'. By ex-athletes recalling their own past experiences, and researchers comparing them with the experiences of others under review, the research will increase the accuracy of recollection. In other words, gathering information from various sources and viewing the outcome in a broader context should increase the chance of making more stable accounts of past experiences. Of course despite the researches best intentions it is crucial to acknowledge this is not the same as asking the respondents in the 1970s but merely securing greater validity for a means to an end.

Hypotheses

Such to facilitate chronological comparison of the 'value' and 'place' psychological androgyny commended in appropriating success, four hypotheses in aggregate were designed to be tested. It was hypothesised:

- V. That instrumentality as compared to expressiveness in successful male ex-athletes would be markedly similar in their high scoring.
- VI. That instrumentality as compared to expressiveness in successful female ex-athletes would be markedly *different* in their scoring.

If the relative importance granted to personal fulfilment is related to androgyny it is hypothesised that:

- VII. Male ex-athletes self-reported levels of personal fulfillment will be significantly higher than the other constructs under review
- VIII. Female ex-athletes self-reported levels of personal fulfillment will be significantly *lower* than the other constructs under review

Thus study one part (b) was designed to elicit whether the concept of androgyny is meritorious in the performance across established career paths and by doing so, accounts for the succeeding years surge of improvement in women and men's more subdued performances.

PARTICIPANTS

The subjects for this study were successful male and female ex-athletes. To ensure that all athletes in the survey pool exhibited the minimum common desired range of operational compliance the principal areas of validation were observed from study one part (a): first, the athletic discipline of 100 and 200metre sprinting provided the field of interest; second, British Club affiliated athletes were selected as the sample source, and third successful was taken to mean: 1) Compliance in practice and spirit with British Club affiliated policies and rules. (2) Athleticism as measured by successful competition at the highest club level. (3) The insistence on a minimum of three years British Club affiliation, at least one of which *was* dedicated to the pursuit of national success. In doing so, this study retained congruency with the objective criterion for successful athletes taken in study one part (a). In fact, the only major digression from the sample of study one part (a) is the issue of era. Study one part (b) participants are former athletes and the question of which era of athletic focus to consider for investigation is paramount. In study one part (a) the era of interest coincided with the 'second running boom' (Kardong, 1998) which is approximately thirty years after the original boom of the 1970s. Coincidentally, as seen, interest in the concept of psychological androgyny initiated in the 1970s with the work of Constantinople (1973), Bem (1974) and Spence and Helmreich (1974), therefore, it seems study one part (b) is destined to explore athletes of the 1970s era. To affirm then, study one part (b) will reflect on *successful* British club affiliated 100 and 200metre-sprint athletes from when psychological androgyny was first initiated in the 1970s.

SAMPLE SIZE AND APPROACH

In study one part (b) the ability to make inference from ex-athletes representative of when psychological androgyny was first initiated, thirty years ago is based on the availability of a suitable sampling frame. Unlike the sampling conditions adopted for establishing study one part (a)'s current 100 and 200metre athletes, there is no 'ready made' sampling frame available for the population of interest, therefore, a non-probability sampling design was required whereby a sample is based on subjective (deliberate) judgement. Patton (2002) directs the reader towards the use of purposive sampling with an appropriate focus. As such it is the logical relationship between the purpose and focus of the research which is important, and not the sample selection technique. In particular purposive sampling allows for working with a small sample and when selected cases are illustrative (Kervin, 1992; Patton, 2002). Such a sample strategy is often referred to as *typical case* and enables an illustration of what is '*typical*' about which only a little is known (Kumar, 1999; Saunders, et al., 2003), however, it is not intended to be definitive.

Consider study one part (b) for instance. The sampling frame for ex-100 and 200metre club athletes is unknown. Yet, access to a typical sample of these athletes was essential for comparative and contrastive purposes. For such research, judgement of suitable sample members was instructed through the insight of adept opinion: Nigel Robert-Powis (former British Team coach and ex-athlete), Bill Adcocks (Information Officer, UK Athletics and ex-athlete), Ruth Walton (former Development Coordinator, UK Athletics) and Joanna Smallwood, (Administrator for the AAA), thus, removing the basic problem of judgmental error of the researcher. Concurrent with the sampling conditions devised an ex-100 and 200metre-club athlete sample was assumed specific of their views to the extent to which successful athletes exhibited androgynous characteristics in the 1970's.

QUESTIONNAIRE DESIGN AND CONSTRUCTION

To ensure continuity with the questionnaire design and construction of study one part (a), here the questionnaire will follow the same stringent criteria for implementation.

The introductory module consisted of two close-ended questions designed to elicit basic demographic data on gender and era of participation for the purpose of information segregation and comparison, while appealing to Gilbert (1993), Saunders et al, (2003) and others counsel placing the respondent at ease.

The second module employed the use of the SBSRI (as described in detail earlier), however, while this may have been acceptable for contemporary athletes, to be effective it would also appear that ex-athletes of the 1970s would have to recall personality attributes at that moment in time. However, and perhaps predictably so, challenges to such an approach are unsurprising with attempts to rebut exactness with claims of 'compelling but equally spurious memory' of past successes (Buehler and Griffin, 2003; Fraser and Macrae, 2000; Lohvallo, et al, 2003). Despite congruity with this concern, the argument in favour of such an approach is two fold: firstly, with consideration to the rigorous and oft time's laborious training routines (*both* physically and mentally) entrenched into athletes past and present, it is unlikely memory will prove to be incredulous. Indeed, the philosophy '*practice makes permanent*' seems unerringly apt. Secondly, what are the alternatives, considering traditional activists [Bem 1974, Spence, 1978 and later Cook, 1985] claim that the influx of earlier writings related to psychological androgyny were less empirical, and more cultural/historical/theoretical in nature? Indeed, Stake (2003), Postow (1980), and Vetterling-Bruggin, (1982) identified room for further exploration of the concept in relation to sports implying a lack of prior research in this area. Rather than rebut the legitimacy of approach it should be viewed favourable in its attempt to facilitate chronological comparison of the relative importance 'value' athletes' place on psychological androgyny in appropriating athletic success.

The third module again requested the athletes to try and identify where psychological androgyny fitted in a framework for appropriating success. Logically, study one part (b) used the same six achievement constructs; that is, personal goals; physical

appearance; self-esteem; public-esteem; personal fulfilment and the catch-all construct of *other* to facilitate comparative purposes, but in light of the considerations discussed above, it is understandable why this approach too, was subject to criticism. The ratings procedure is reliant upon individuals (i.e. ex-athletes) '*challenged* memory' (Buehler and Griffin, 2003; Buehler, Griffin and Ross, 2003; Fraser and Macrae, 2000). This does, question the method or operation of results as they are developed in the thinking, that an ex-athlete can ascribe achievement constructs for a given time (Lovallo, et al, 2003). Is it plausible however to regard the virtue of memory tempered by a selective admixture of time and passivity? Probably not, but as mentioned earlier, what are the alternatives? The present study is a conceptual and empirical investigation of the extent to which successful athletes exhibit androgynous characteristics. Since this is the first study of psychological androgyny among British club athletes (cf. Eklund 2006; Stake 2003), it would be prudent to acknowledge that this method of ascribing achievement constructs is hardly ideal. In all fairness, it must be noted that Nideffer and Rembisz (1996) adjudge that each athlete knows only too well the tremendous emotional difference between success and failure, therefore it is improbable to think that the same athletes cannot recollect their achievement aspirations. Besides, the guidance of Weinstein (1980) who advised viewing the outcome in a broader context to increase the stability of recollections was put into practice. Also if there is a 'better-fit' methodological alternative, this study is at a loss to find it. Thus, this study has decided that it is fairest to err, if err it must, by allowing the athletes themselves to favour the position with which it has least testimony. Within this framework therefore, the researcher not only establishes the relative 'value' athletes place on psychological androgyny but also its 'proper place' in appropriating athletic success.

PROCEDURE FOR QUESTIONNAIRE ADMINISTRATION

For the second part of the study, consistent with the sampling conditions applied for ex-100 and 200metre club athletes, Nigel Robert-Powis (former British Team coach), Bill Adcocks (UK Athletics, Information Officer), Ruth Walton (former UK Athletics, Development Co-ordinator) and Joanna Smallwood (Administrator for the Amateur Athletic Association of England) were contacted with the intention of providing expert judgement in devising a requisite sampling frame. Together they provided for a sample of 39 former 100 and 200metre club athletes from the 1970s. From here, each athlete was contacted requesting assistance in completing the questionnaire. All but five of the ex-athletes responded favourably. Furthermore, unlike the sampling of the present day athletes, a near equal representation of male (55.8%) and female (44.2%) ex-athletes responded. In order to be congruent with study one part (a)'s procedural criterion, it was deemed essential that the minimum number requirement of the smaller strata be reflected in that of the larger strata. In this way, the approach claims congruence whilst facilitating the process of meaningful comparison and discussion. This, and the claimed congruency of the procedural criterion, framed the reason why an equal stratum of 15 male and 15 female ex-athletes provided the sample. This sample then, illustrated what was *typical* of their views to the extent to which successful athletes exhibited androgynous characteristics in the 1970s.

The BSRI short form, a validated test instrument designed specifically for empirical research on psychological androgyny and described in detail earlier, was used for part (b) of this study.

RESULTS (b)

The results of the study find a clear trend towards a higher proportion of androgynous ex-athletes, a conclusion rather in contrast to that expected. As before the reliability (alpha) of the *M* and *F* scales were .86 among the male athletes to .82 among female athletes. The coefficient of correlation ranged from .074 to .201 for the ex-athlete sample.

Hypothesis 5: That instrumentality as compared to expressiveness in successful male ex-athletes would be markedly similar in their high scoring.

Table 6 –

Male Ex-Athletes score means for Instrumentality and Expressiveness scores

<i>Ex-Male Athletes</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Instrumentality	15	51.33	7.28	
Expressiveness	15	49.4	11.6	0.589

Insignificant p >0.05

A t-test conducted revealed that there is an insignificant difference between the possession of relative high and equal degrees of instrumentality and expressiveness, thus providing evidence that successful male ex-athletes were androgynous. Hypothesis 5 was clearly supported by the data.

Hypothesis 6: That instrumentality as compared to expressiveness in successful female ex-athletes would be markedly *different* in their scoring.

Table 7 –

Female Ex-Athletes score means for Instrumentality and Expressiveness scores

<i>Ex-Female Athletes</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Instrumentality	15	48.4	11.4	
Expressiveness	15	50.53	8.00	0.558

Insignificant p >0.05

This hypothesis looked for significant differences between levels of instrumentality and expressiveness in successful female ex-athletes. A t-test conducted revealed an insignificant difference between high levels of instrumentality and expressiveness, indicating androgynous functioning amongst successful female ex-athletes. The data seemingly does not support the hypothesis.

If the relative importance granted to personal fulfilment is related to androgyny it is hypothesised that:

Hypothesis 7: Male ex-athletes self-reported levels of personal fulfilment will be significantly higher than the other constructs under review.

Table 8 –

Male Personal Fulfilment as an Indicator of Athletic Performance

<i>Ex-Male Athletic Constructs</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Personal Fulfilment	15	6.067	0.884	
Public Esteem	15	3.93	1.44	0.000*
Self Esteem	15	5.73	1.03	0.351
Personal Appearance	15	5.00	1.41	0.021*
Personal Goals	15	6.067	0.884	1.000

**Significant $p < 0.05$*

Note: In each instance the constructs are tested with personal fulfilment.

A series of t-tests conducted determined that personal fulfilment was significantly higher than both the public esteem and personal appearance constructs. Compared to the other constructs an insignificant difference was revealed. In other words,

successful male ex-athletes do not necessarily set apart personal fulfilment from the other constructs under review as significant.

Hypothesis 8: Female ex-athletes self-reported levels of personal fulfilment will be significantly *lower* than the other constructs under review.

Table 9 –

Female Personal Fulfilment as an Indicator of Athletic Performance

<i>Ex-Female Athletic Constructs</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Personal Fulfilment	15	5.40	1.40	
Public Esteem	15	5.07	1.16	0.485
Self Esteem	15	5.60	1.24	0.683
Personal Appearance	15	5.07	1.33	0.511
Personal Goals	15	6.133	0.915	0.103

Insignificant $p < 0.05$

Note: In each instance the constructs are tested with personal fulfilment.

A series of t-tests conducted revealed that the five constructs of athletic success did not differ significantly from each other. This implies that among the successful female ex-athletes androgyny is as significant as the other constructs under review, thus, hypothesis 8 was clearly not supported by the data.

In light of the evidence of androgynous functioning in female ex-athletes, as mentioned above, an analysis of whether female ex-athletes are more likely androgynous than male ex-athletes seemed prudent. Analysis of the data was by means of the chi-square test. In the successful male ex-athlete sample, 23.3 per cent were classified as androgynous as compared to 16.6 per cent in the female ex-athlete

population. A chi-square test conducted revealed the difference as insignificant ($X^2 = 2.450$, d.f.1, $p > 0.05$), thus providing evidence that the gender or sex of the successful ex-athletes does not significantly affect the classification of that person as androgynous.

Table 10 –
Mean Sex-roles scores as Percentages

<i>Sex role defined by a</i>	<i>Ex-Male</i>	<i>Ex- Female</i>	<i>Mean %</i>
<i>median split</i>	<i>Athletes</i>	<i>Athletes</i>	<i>Combined</i>
	<i>M=50.3</i>	<i>M=49.4</i>	
Androgynous	23.3%	16.6%	40%
Masculine	10%	13.3%	23.3%
Feminine	6.6%	16.6%	23.3%
Undifferentiated	10%	3.3%	13.3%

Note: N =15

Note: Medians were calculated on the basis of a single combined sample for each sex

From a simple frequency count (see table 10), 12 ex-athletes were androgynous (n=7M/5F), 7 ex-athletes were masculine (n=3M/4F), 7 ex-athletes were feminine (n=2M/5F) and 4 ex-athletes undifferentiated (n=3M/1F). As seen, a higher proportion of ex-athletes who are successful tend to be androgynous. It would seem that two in five of the successful ex-athletes endorsed a high degree of both stereotypical masculine and feminine characteristics. The frequency table also suggests a high degree of both masculinity and femininity was desirable.

DISCUSSION (b)

The purpose of this study part (b) was to examine the prediction that male ex-athletes would describe themselves as having markedly similar traits that are considered masculine and feminine [androgynous] while female [ex-athletes] would report a markedly *different* integration of masculinity and femininity in their personality. The results of the study provided only partial support for this prediction, with male ex-athletes describing themselves with a markedly similar integration of *both* masculinity (51.3) and femininity (49.4) in their personality, as expected, and thus, in a general sense at least, suggestion as to the positive effect of androgyny on performance as likely. Interestingly, this has also been found to be the case for female ex-athletes. This study part (b) found that female ex-athletes described their personality profiles as remarkably similar to the male ex-athlete, in terms of endorsing masculine (48.4) and feminine (50.5) characteristics. A chi-square test conducted confirmed their relative similarity ($X^2 = 2.450$, d.f.1, $p > 0.05$). This was contrary to expectations and poses an interesting quandary as to the cause. Choi (2000) believes these are not really surprising findings. Athleticism, like management and other male dominated occupations, is highly competitive and individuals, both male and female, need to be competitive, instrumental, assertive, independent and willing to take risks in order to succeed (Choi, 2000). Competition and aggression, in particular, are prevalent in athleticism so of course sportswomen will score highly on these terms (Choi, 2000) but this does not mean that sportswomen are less feminine or more masculine. What it does mean is that in female athleticism, androgyny's influence is not absent, but is more social-specific in ways that are poorly understood.

When it comes to the frequency count of ex-athletes, 40 per cent of ex-athletes were classified as androgynous, almost 17 per cent more than those classified as masculine and feminine respectively. This revealed a clear trend for androgyny (two in five) as compared to both masculine and feminine (nearly one in four). As mentioned in part (a) of this study, the only conclusion that can be reliably deduced is that androgyny was found to be more of a contributing factor to athletic success than either masculinity (instrumentality) or femininity (expressiveness).

This part of the study (b) also notes disparate results for androgyny as the relative importance granted to personal fulfilment. It appears that male ex-athletes consider androgyny more indicative of athletic success than public-esteem and personal appearance but no more or less indicative as compared to self-esteem and personal goals. Unexpectedly the female ex-athletes similitude toward all five constructs under review challenged the accepted view (cf. Choi, 2000; Coakley and White, 1992; amongst others). These findings do suggest that athletic success is dependant on many factors.

These results suggest that further research should empirically evaluate the androgynous concept's relativity to femininity as a whole, alongside the growing awareness of the social construction of gender.

GENERAL DISCUSSION

Taken together the findings reported in part (a) and (b) offer some support to the tentative theory (TT) of the research that an individual's ability to be a successful athlete will be enhanced to the extent that he or she is able to exhibit appropriate androgynous behaviour. Moreover, those successful athletes of either generation or gender are more likely to be androgynous individuals (nearly two in five) despite original scepticism toward the female ex-athlete's likelihood. The results of this study parts (a) and (b) also conclude that successful male and female athletes both past and present have markedly similar personality profiles in terms of their endorsement to a high degree of positive masculine (ex-athletes 51.3, 48.4, and current athletes 52.7 and 50.1 respectively) and feminine (ex-athletes 49.4, 50.5, and current athletes 51.1 and 51.6 respectively) characteristics thus, in a general sense at least, are more likely to be androgynous.

Among female athletes' instrumentality as compared to expressiveness differences were expected to be significant, because of the alleged biological (cf. Hakulinen, 1996; Hargreaves, 1994; Laine, 1989a, 1996), physiological (cf. Koutedakis, 1996; Shangold, 1994; Wells, 1985), and psychological (Bassoff and Glass, 1982; Pyke, 1985), as well as opportunity, encouragement and resource shortcomings of the 1970s ardent sportswoman, but the investigation revealed an insignificant difference. Hence, these studies parts (a) and (b) clearly indicate that female athletes are no more, or less androgynous, today than they were in the 1970s. Despite, the researcher's wide and extensive reading, no literature that notes athletics as a stereotypically feminine domain has been identified. After all, the ideal of the athletic body is strong and muscular not slim and toned, and traditional notions of gender equate strength with masculinity, not femininity (cf. Choi, 2000; Cashmore, 2002; Figler and Whitaker, 1995; Hargreaves, 1994; Lenskyj, 1986; Winter, 1979; Wood, 1980). It has also been suggested that feminine characteristics are less than intuitive to the athletic arena (cf. Bassoff and Glass, 1982; Pyke, 1985; Taylor and Hall, 1982). Even so, the sample of athletes in study one part (a) and (b) felt the need to report high levels of femininity (expressiveness) stereotypically alikened toward passivity, non-muscularity and largely non-competitiveness (cf. Bem, 1974; Cook, 1985) as athletic success prerequisites.

This conclusion seems to contradict most of what little sport-focused related research has been undertaken. Several studies suggest masculine characteristics are more likely to be associated with athletic interests (cf. Colker and Widom, 1980; DeGregorio and Carver, 1980; Hoppe, 1979; Mills and Bohannon, 1983; Myers and Lips, 1978; Postow, 1980; Spence and Helmreich, 1978; Williams and Miller, 1983). Myers and Lips (1978) and Spence and Helmreich (1978) discovered that high masculinity may be more frequent in samples of athletes. Mills and Bohannon (1983) found their sample of college male athletes to score high on masculinity. High masculinity is apparently also characteristic of male athletic directors (Williams and Miller, 1983).

In a comprehensive meta-analysis of the androgyny/psychological functioning literature, Taylor and Hall (1982) concluded that although both masculinity and femininity account for a portion of psychological functioning scores, the far weaker relationship of femininity suggested that psychological functioning is more likely to be a result of the extent to which athletes possess masculine characteristics. Long (1989), Orlofsky and O'Heron (1987) and Whitley (1983) drew the same conclusion, that masculinity proved to be much more powerful than femininity in its contribution to positive psychological functioning. They would, in fact, regard a *lack of* association between trait masculinity (instrumentality) and femininity (expressiveness) in an athletic setting. In addition to Taylor and Hall and others, Bassoff and Glass (1982) provided a more extensive analysis on psychological functioning. They concluded that 'androgyny is not distinguishable from masculinity' (p.109), at least as a correlate of psychological functioning. Indeed, so many instances of higher levels of instrumental characteristics have been athletically manifest that such has been regarded the 'embodiment of hegemonic masculinity' (Dyer, 1982; Griffin, 1991). Instrumental characteristics are relevant to activity levels, muscularity and competitiveness, all highly valued attributes (Bem, 1974; Cook, 1985). The Women's Sports Foundation, (1995) labelled such characteristics as 'the solemn and periodic exaltation of masculinity'. A sentiment seemingly echoed by Bem (1974), Cook (1985) and others. Athleticism has thus become, for men, a way of constructing a masculine identity (Messner, 1992;

Lorber, 1993) and of male solidarity (Dunning, 1986). The manifestation therefore, in the social literature, is that the athletic type is masculine.

Indeed it is important to emphasise here that despite the fact that this study has seemingly reported evidence to the contrary; it was also found that a high incidence of masculinity (instrumentality) was associated with athletic success. Across both generations and genders masculinity accounted for one in four athletes a finding consistent with the endorsement of Colker and Widom, (1980) and others that masculinity competence becomes an important indicator of athleticism (Connell, 1983).

On the face of it this would provide evidence to support those who advocate athletic masculinity, but the subtle fact that the contributions of femininity may be more potent and less predictable than is desirable could have an impact on athletic performance.

The possibilities for explaining femininity's more potent and less predictable impact are first: Colker and Widom (1980) found that although Myers and Lips (1978) and Spence and Helmreich (1978) reported athletes as more masculine in their characteristics (a finding which would imply a feminine antitheses), the fact is, they have also been characterised as less feminine rather than more masculine. On the contrary, this would convey an entirely different interpretation: that athletes are not exclusively masculine in their characteristics at the expense of femininity but rather have less femininity. In short, athletes occupy *both* traits masculinity and to a lesser extent femininity. In Mills and Bohannon's (1983) research, interestingly on further examination, more of their sample were classified as androgynous than masculine and roughly 10% were classified as feminine (Cook, 1985). This result could be wholly re-interpreted as indicating athletes first as androgynous, and only second as masculine and even then, not without femininity but to a lesser degree. The contribution of the present study also finds a clear trend towards a higher proportion of androgynous athletes (37.7 per cent), ahead of masculinity at 25 per cent, with femininity occupying 22.5 per cent. In Williams and Miller's (1983) research, evidence also exists that

athletic directorship is apparently as much a female prerogative as it is male (Cook, 1985). Indeed, Silvern and Ryan (1979) even suggest that femininity may not be negatively associated with psychological functioning. Other studies have also found a stronger relationship between gender-role variables and measures of psychological functioning for women than for men (cf. Burchardt and Serbin, 1982; DeGregorio and Carver, 1980; Lamke, 1982; Wells, 1980).

It would seem therefore that taken together the studies do indicate *some* relationship between trait masculinity and femininity in an athletic setting. So why the apparent misogyny and obstructions to the cause of research? This research can only speculate at a reason, but these results are in alarming contrast to most of the research findings in psychological androgynous literature at the time. Despite the fact that researchers tend to view themselves as objective and value-free, traditional approaches to the study of psychological androgyny incorporated the biases of the larger spectrum in which scientists research (cf. Kaplan and Sedney, 1980; Rebecca, Hefner, and Oleshansky, 1976; Vetterling-Bragin, 1982). Kaplan and Bean (1976) argued that as a result, researchers looked for and found gender differences, while similarities between the genders were relabelled, overlooked, or dismissed (see also: Kaplan and Sedney, 1980; Maccoby and Jacklin, 1974 and Wesley and Wesley, 1977). Of course, this sense of contradiction is conceptualised as analogous in the stereotypically gender context: to the high levels of instrumentality evident not congruent with femininity. Females have been represented according to cultural stereotypes that associate femininity with weakness, dependency, emotion and submissiveness (Scruton and Flintoff, 2002). Thus, females with muscles, demonstrating strength, speed and agility are more consistent with traditional notions of masculinity (Choi, 2000). Females' engagement in sport traditionally defined as male challenges the boundaries of femininity (Griffin, 1987; Hall, 1988). That is, the 'typical' effect of the anti-feminising practices raises questions about the female's sexuality (Blinde and Taub, 1992; Griffin, 1992; Krane, 1997a; Scruton and Flintoff, 2002; Veri, 1999). It has even been suggested that femininity was perfunctory rather than functionary in its contribution to the psychological adjustment needed for athleticism (Bassoff and Glass, 1982; Taylor and Hall, 1982). The consensus therefore, in the sociological discourse of gender and

sport, is that the high levels of expressiveness evident are not congruent with athletic masculinity (Bem, 1974; Cook, 1985). In effect, a focus on male versus female differences in gender-role research obscured how women and men can be similar to one another. In Stake's (2003) view, most discussions covering psychological androgynous themes in literature centred almost exclusively on work activities thus precluding sport-focus related research association and moreover homogeneity. It would appear therefore that the choice was simple: "a single effort without follow-up" (Cook, 1985:71), or "inconsistency in reporting of findings" (Cook, 1985:17) with results that confirm only a portion of the researchers' expectations. This may go some way to explain Kaplan and Sedney (1980), Rebecca, Hefner, and Oleshansky (1976), Vetterling-Braggin (1982) and others, cynicism and the sudden loss of interest in research into sport-related androgyny by the nineteen eighties.

The present findings reported favour the beliefs of Bem, (1974), Dyer, (1982), Simri, (1977), Spence and Helmreich, (1978), Ward and Whipp, (1990) and others, who challenge the merits of cross-behavioural avoidance. Athletes of both generations, tend to display high levels of behaviours that enable them to share overlapping instrumental and expressive traits and in doing so, dispel the almost universal belief that athleticism is 'inherently' masculine whereas femininity is somehow misleading (cf. Choi, 2000; Dyer, 1982; Hargreaves, 1994; Scraton and Flintoff, 2002).

An associated theme in the androgyny literature relates to the desirability for athletes to endorse androgyny to be able to function successfully in a competitive environment that increasingly requires transferable skills. Bem (1975), and Spence, Helmreich and Stapp, (1975) proposed that individuals who match their personality traits engage with those positive behaviours most appropriate for the moment. This finding is consistent with the suggestion by Alagna (1982), and Welch and Huston, (1982) that androgynous functioning will enhance the accessibility of achievement orientation in a competitive situation (see also: Olds and Shaver, 1980). Hinrichsen, Follansbee and Ganellen (1981) also reported that androgynous people consistently rated themselves as having higher psychological functioning. Consequently, it was predicted within this study part (a) and (b) that athletes other than female ex-athletes were much more likely to report

androgyny positively. Specifically, it was hypothesised that athletes of both generations (with the notable exception of female ex-athletes) self-reported levels of personal fulfilment would be significantly higher than the other constructs under review namely: personal goals (Martens and Webber, 2002), physical appearance (Furnham and Greaves, 1994), self-esteem (Feltz, et al, 1989; George, 1994), and public-esteem (Welch and Costa, 1994). Following tabulation of the scores pertinent to the relative importance granted to personal fulfilment it seems that the affinity anticipated was not forthcoming. That is, when it comes to the athletes attitudes (irrespective of generation) towards personal fulfilment there was no significant difference reported between the genders and the other constructs. Furthermore, despite initial apprehension female ex-athletes revealed unanimity with the other samples. Admittedly this view was not entirely expected for the female ex-athlete group and was also a view not shared by many researchers (cf. Choi, 2000; Coakley and White, 1992; Cockerill and Hardy, 1987; Hargreaves, 1994). These findings do suggest that androgyny is no more or less indicative of athletic success. By the same token in this retrospective, it can be reasonably claimed that androgyny is not negatively associated with athletic success. After all, it is difficult to imagine how the successful athlete classified as androgynous would not seek those positive personality characteristics ascribed to be stereotypically masculine and feminine attributes in personal fulfilment.

It may be argued, in general, that the present findings reported here pose a challenge to traditional belief: that sex roles are independent in an athletic setting. Thus, contrary to traditional belief, the present findings suggest considerable uniformity among trait masculinity and femininity in athletes. Indeed it appears that the cost of treating similarities as inconsequential findings or, at best, unexplainable results (cf. Kaplan and Sedney, 1980; Maccoby and Jacklin, 1974 and Wesley and Wesley, 1977) was a male-female dichotomy that failed to represent the diversity of personal qualities and the complexity of the athletic culture. The prevalence of between-gender studies with mixed findings and of borderline significance (cf. Kaplan and Bean, 1976; Maccoby and Jacklin, 1974) clearly indicates that these between-gender differences are not as robust as once assumed. Here, the study parts (a) and (b) have shown that the sample of athletes felt the need to become an exception (unwittingly perhaps) to the

'embodiment of hegemonic masculinity' (cf. Griffin, 1991) where the stereotypically masculine characteristics are seen as more ideal and beneficial across a range of athletic endeavours – both general and specific.

Indeed, although the need to display stereotypically masculine characteristics was high, study parts (a) and (b) taken here have shown that athletes felt the need to display similar high levels of stereotypically feminine characteristics, and this is something that the body of athletic literature has not discussed (cf. Colker and Widom, 1980; DeGregorio and Carver, 1980; Hoppe, 1979; Mills and Bohannon, 1983; Myers and Lips, 1978; Postow, 1980; Spence and Helmreich, 1978; Williams and Miller, 1983). A more subtle disclosure in the present findings challenged the conventional view that, psychological functioning is more likely to be a result of the extent to which one conforms in masculine-appropriate characteristics, with deviation implying psychological maladjustment of some sort (cf. Long, 1989; Orlofsky and O'Heron, 1987; Taylor and Hall, 1982 and Whitley, 1983). Whether or not masculine-appropriate characteristics in psychological functioning are more valued, it seems that the implication of accepting femininity as inconsequential failed to represent the unique and complex patterns of characteristics of athletes (cf. Burchardt and Serbin, 1982; DeGregorio and Carver, 1980; Lamke, 1982; Wells, 1980). The results of this study part (a) and (b) has further shown that the outcome informs the male athlete of what the female athlete seemingly already knew – that the conflict between femininity and athleticism exists only in the realm of the masculine preserve (cf. Dyer, 1982; Griffin, 1991; Hargreaves, 1994; Jackson and Marsh, 1986; Kane, 1995). In other words, the findings refute the popular myth that female athletes are not, and cannot be, feminine (cf. Jackson and Marsh, 1986).

Taken together parts (a) and (b) of the study have both provided some support for the research's tentative theory (TT) that an individual's ability to be a successful athlete will be enhanced to the extent that he or she is able to exhibit appropriate androgynous behaviour. However, it is not yet clear whether the identification of femininity with androgynous characteristics has a particular affinity to and significance for athletic achievement or if androgyny is relative to femininity as a whole. The advancement of

androgynous theory and application can go only so far on tentative theories and hypotheses. These conclusions, and how they might be advanced through the application of other samples, deserve a closer look.

CHAPTER 5 - PSYCHOLOGICAL ANDROGyny:

A QUESTION OF FEMININITY

STUDY ONE PART (c)

Study one part (c) aims to examine whether psychological androgyny as previously conceptualised and accounted for in this research is: (a) attributable to athletic success amongst females, or is it relative to femininity as a whole, and/or (b) whether it is simply that women are becoming more 'male'.

In the evidence presented thus far in this research, androgyny is not only typical in successful athletic women but expected and healthy. The general consensus reached was that British athletics, its sheer physical and psychological pressures (see, for example, Cashmore, 2002; Dyer, 1982; Hakulinen, 1996; Hargreaves, 1994; Laine, 1996) call for athletes whose behaviour exhibits flexibility and adaptation. While androgynous athleticism for females could not be presented as the single best athletic style to meet these challenges, it did show considerable promise as a concept. Perhaps it is not surprising then, as Choi (2000) and Gill (1994) claim that during the 1970s and 1980s research using Bem's Sex Role Inventory (BSRI) found that female athletes scored higher on the constructs of androgyny or masculinity than female non-athletes. Interestingly, this was also found to be the case for Spence et al's PAQ.

What Choi (2000) and Gill's (1994) claim actually signifies is testament to the study. In the interest of a well-rounded understanding study one parts (a) and (b) thus far merely assumes any indifference between athletes, within an athletic setting. Accordingly it may not provide the fullest representation of the female athlete for whom, as Dyer, (1982) cautioned, are not only socially deviant but flying in the face of biological reality and predestination, as well as demonstrating somehow, something imperfect in their makeup as women. As evidenced the position and performance of women in athletics today is very different from that portrayed by these common beliefs and attitudes. These conclusions as Choi (2000) suggests are presumably as relevant to the work place as to the sports field and vice versa. To be succinct, therefore, how could this research claim athletic success as a result of androgyny if women in all social contexts

are androgynous? Thus, to be effective, it would appear that a sample of people [female] non-athletic who are consistent with the identified eras of representation may help towards clarification of whether female athletes display behaviours different from those of other, non-athletic roles. Focusing on women alone, of course, may be seen as misplaced confidence in the results. Thinking through and imagining beyond theorising the relationship between femininity and athleticism it is important to recognise that male non-athletes are not unrelated rather they are integral parts in understanding athleticism as it is currently appreciated. Thus male person's non-athlete were also assessed to help address both the similarities and the contradictions in successful feminine athleticism. In this way, a conceptual and empirical framework of an approach that interprets the role of the successful athlete [female] in terms of that individual's personality traits in the athletic arena can actually be testified.

It is assumed that with respect to femininity at the informal social level, their disposition to behave in varying ways (e.g. Locksley and Colten 1979), and consequently their perceptions of self as an actor in general, we should expect to find femininity differences in the use and frequencies of certain types of behaviour as compared to the successful female athlete. This argument would seem glaringly obvious in the case of feminine women describing themselves in a role traditional for their sex and thus in accordance with sex-specific norms (Cook, 1985).

Study one part (c) also examines the personality ideal of androgyny gained through a balance. The logic of this conclusion depends upon demonstrating that masculinity and femininity each have a powerful, positive impact upon behaviour. Some evidence for this assumption is provided in the first and second parts of this study through the athletes' similar endorsement to a high degree of positive masculine and *feminine* characteristics. What deserves closer attention, however, is whether the contributions of the masculine dimension play a perhaps complementary but principal role as given by Mills and Bohannon (1983), Myers and Lips (1978), Spence and Helmreich (1978), and thus account for athletic success amongst females.

In general then, this study tests Choi (2000) and Gill's (1994) claim that female athletes scored higher on the constructs of androgyny than female non-athletes. That is, athletic women have high levels of competitiveness, instrumentality, assertiveness, independence and willingness to take risks as tested by the SBSRI. Non-athletic women have rather lower personality strength and control (Choi, 2000). At the same time, part (c) assesses the archetypal notion of masculinity's ascendancy in athletics.

Hypotheses:

Five hypotheses are therefore to be tested. If we accept that androgynous traits (high levels of instrumentality and expressiveness) are related to athletic success, then it is hypothesised:

- IX. That instrumentality as compared to expressiveness in current female non-athletes would be markedly *different* in their scoring.
- X. That instrumentality as compared to expressiveness in the 1970s female non-athlete would be markedly *different* in their scoring.

And for male non-athletes it is hypothesised:

- XI. That instrumentality as compared to expressiveness in current male non-athletes would be markedly *different* in their scoring.
- XII. That instrumentality as compared to expressiveness in the 1970s male non-athlete would be markedly *different* in their scoring.

The final hypothesis was designed to test the relative masculinity of the female athlete. Thus it was hypothesised that:

- XIII. Those successful current female athletes will display higher levels of instrumental traits than female ex-athletes.

Thus study one part (c) of the research is designed to measure the extent to which non-athlete [female *and male*] samples give contrasting results compared with the test scores of the athlete samples. The present study is also designed to assess whether the traditional notion of masculine ascendancy is more positively correlated with athletic success amongst females.

NON-ATHLETE PARTICIPANTS

The subjects for study one part (c) of the research were female non-athletes first and foremost and then male non-athletes selected on the basis that participants were unaffiliated to UK athletics; corresponded with the previously identified eras of interest and most significantly were not deemed necessarily successful in their chosen careers. Further conditions for inclusion specified non-athletes within the context of management both conceptual and empirical, as well as in career choice which have been widely reported in a number of studies related to androgyny (see Yarnold, 1990; and Ghei, and Nebel, 1994 for an excellent review of the concerned literature) preferably should not be present in the samples used for this study. The general consensus reached was that while androgynous management could not be portrayed as unequivocally the one best recommended style of management for the sexes (see Ghei and Nebel, 1994), it did show significant potential as a concept [refer to Androgyny Literature in Context] and accordingly cautions against the use of managers as a sample base in terms of that individual's personality characteristics. Drawing upon the work of Choi (2000) presumably this would be as relevant to the sports field as the work place, therefore, the objective criterion for the non-athlete samples taken here are: (1) Compliance to the eras of interest. (2) Not to be affiliated to UK athletics or any other athletic association. (3) Preferably, but not exclusively at the expense of management. The exclusion criterion - any non-athlete non-compliant with the basic principles outlined.

SAMPLE SIZE AND APPROACH

In the wider context of the discussion it could well be argued that a comparison with less-successful athletes would be the preferred and obvious choice rather than non-athlete samples. In considering such a sample however, three potential stumbling-blocks surfaced. First the issue of what constitutes a less-successful athlete. The understandable answer would be any athlete non-compliant with the basic principles outlined for inclusion (the objective criterion for a successful athlete was described in detail earlier, therefore that information will not be repeated here). If it is accepted that any attempt at defining 'success' or 'grading' athletes is crude at best, and partial at worst, then we seemingly have reason to believe why defining 'less-successful athletes' would be even more precarious to attempt. Second, is the problem of embarrassment. It is one thing to request athletic clubs to identify their successful athletes for survey but understandably a very different situation to request identification of their less-successful athletes. This merely strains the researcher-athlete relationship prior to commencement by highlighting their 'failings'. Third and finally, research previously undertaken by Choi (2000) and Gill (1994) used non-athlete samples [albeit female only] significantly for correlation purposes non-athlete samples seemed most plausible.

Also the issue of compatibility seems pertinent. Are the non-athlete samples comparable with the athlete samples? At this point it is worth noting the 'between samples' similarities: both samples comprise either females or males, who are similar in age; have similar generic behavioural patterns; share common interests, fashions and personal experiences; impart mutual traditions and cultures; have a shared history and mandated social roles. As the novelist Hilda Doolittle (cited in Blau DuPlessis, 1990:412) professed whatever else they do, "man-is-man, woman-is-woman". It would seem the *only* difference of note is the athletic facet. Thus to all intents and purposes this study viewed both the non-athlete and athletic samples as compatible.

The subjects for this stage of the study were female and male non-athletes from the present era and from the 1970s in order to maintain research congruency and adhere to the conditions for inclusion. Assuming many women and men would adhere to the

criterion for inclusion the length and breadth of Britain, the logical decision was to select a random sample via means of a representative database management system.

Considering the case of this study: From an expansive current British population, sample analyses of just 30 female and 30 male non-athletes were required. On the basis of convenience the University College Birmingham provided the ideal sample base, with thousands of students registered. Thirty female and thirty male British undergraduate students were randomly selected from the University's QL-e database (minus the students with athletic interests) and provided with a questionnaire to rate themselves on each of the 20 items using the Bem's seven-point Likert scale on which a score of one denotes '*never or almost never true*' and a score of seven denotes '*always or almost always true*'. This represents an androgynous sensitivity which is understood to conform to current non-athletes no less strong in contemporary Birmingham than in Britain.

In selecting British non-athletes resolute with the 1970s athlete sample, the University College Birmingham QL-e database did serve to incite an initial exploratory quest for suitable respondents amongst staff with a date of birth reminiscent of the researches interest. The request clearly identified with the criterion for inclusion. From the resultant correspondence a sample base exceeding that of the sample requirement of 15 female and 15 male non-athletes was successfully obtained. The BSRI short form a validated test instrument designed specifically for empirical research on psychological androgyny was deployed in a similar manner to that of the contemporary British non-athlete. In this way, the proportion of 1970s non-athletes classified as androgynous was deduced.

In both of these cases, a pilot sample was deemed not necessary, despite minor and arguably inconsequential alterations in terms of comprehension. The questionnaire (particularly the SBSRI) was previously subject to intense scrutiny prior to initial implementation (The procedure was described in detail earlier, thus that information will not be repeated here).

QUESTIONNAIRE DESIGN

As Gilbert (1993) states a questionnaire should be designed with the respondent in mind. To reiterate the position upheld by this research; ensure that the right questions are asked, that the order of questions is logical, and that the pre-coding is effective. Thus, to be effective, it would appear that the questions would have to possess similar attributes that are consistent with the questionnaire designed for the athlete sample(s) in study one parts (a) and (b). Such an approach is also elementary for correlative purposes and research validity; therefore only minor alterations were made to the introductory module on demographics of the questionnaire. The first question on gender was inappropriate as it was either an acknowledged *all* female or *all* male sample. Accordingly, the decision was made to remove this query and replace it with a question on the non-athletes present career choice. Such a question was designed to avoid where possible the inclusion of management careers and adhere to the criterion for selection. Era of participation was deemed unnecessary for person's non-athlete and was duly changed to a focus on the participant's date of birth. This second question was designed so that each respondent's answer was fixed from a choice of date of birth (i.e. 1950s – 1960s, 1980s – 1990s) and in doing so, corresponded with the athletes question on 'era of participation'. The second module surrounding the self-concept' which incorporated the SBSRI remained unchanged, thus assisting in the process of correlation and research congruency. The third and final module on 'achievement' was original development on decisions about athletic participation (see Cockerill and Hardy, 1987). The constructs of personal goals, physical appearance, self-esteem, public-esteem and personal fulfillment were therefore deemed inappropriate for person's non-athlete and consequently any meaningful comparison. Such approach ensured a reasoned attempt at research congruency.

RESULTS (c)

The results of study one part (c) do suggest that androgynous characteristics are more prevalent in athletes than non-athletes. More specifically it identified that female non-athletes are more feminine and less androgynous and masculine than their athletic counterparts. The internal reliability measures for the Masculinity and Femininity scales, as measured by Cronbach’s alpha were 0.81 and 0.86, respectively. The coefficient of correlation between the Masculinity and Femininity scales was a mere 0.02, which clearly indicates statistical independence and shows that the BSRI (short form) does not force an artificial negative correlation between the two scales.

Hypothesis 9: That instrumentality as compared to expressiveness in current female non-athletes would be markedly different in their scoring.

Table 11 –
Current Female Non-Athletes score means for Instrumentality and Expressiveness scores

<i>Current Female Non-Athletes</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Instrumentality	30	40.57	7.65	
Expressiveness	30	59.07	6.83	0.000

Significant $p < 0.05$

A t-test conducted revealed a significant difference between the possession of instrumentality and expressiveness. Disparate levels of instrumentality and expressiveness signifies a high degree of the characteristics of only one personality type as in this case a more feminine sex-typed person. Hypothesis 9 was thus supported.

Hypothesis 10: That instrumentality as compared to expressiveness in the 1970s female non-athlete would be markedly different in their scoring.

Table 12 –
1970s Female Non-Athletes score means for Instrumentality and Expressiveness scores

<i>1970s Female Non-Athletes</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Instrumentality	15	42.53	5.07	
Expressiveness	15	60.27	3.53	0.000

Significant p <0.05

A t-test conducted revealed a marked difference between the levels of instrumentality and expressiveness. This implies a non-androgynous behaviour. In other words, a clear trend endorsing those positive personality characteristics ascribed to the stereotypically feminine domain.

Hypothesis 11: That instrumentality as compared to expressiveness in current male non-athletes would be markedly *different* in their scoring.

Table 13 –
Current Male Non-Athletes score means for Instrumentality and Expressiveness scores

<i>Current Male Non-Athletes</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Instrumentality	30	51.1	5.49	
Expressiveness	30	41.3	4.94	0.013

Significant p <0.05

A t-test conducted revealed a significant difference between the possession of instrumentality and expressiveness. Distinct levels of instrumentality and expressiveness signifies a high degree of the characteristics of only one personality type as in this case a more masculine sex-typed person. Hypothesis 11 was thus supported.

Hypothesis 12: That instrumentality as compared to expressiveness in the 1970s male non-athlete would be markedly *different* in their scoring.

Table 14 –

1970s Male Non-Athletes score means for Instrumentality and Expressiveness scores

<i>1970s Male Non-Athletes</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Instrumentality	15	53.21	5.87	
Expressiveness	15	40.6	4.91	0.002

Significant $p < 0.05$

A t-test conducted revealed a marked difference between the levels of instrumentality and expressiveness. This implies a non-androgynous behaviour. In other words, a clear trend endorsing those positive personality characteristics ascribed to the stereotypically masculine domain.

Table 15 –

Mean Sex-roles scores as Percentages

<i>Sex role defined by a median split</i>	<i>Sex</i>	<i>Current Non-Athletes M=48.4</i>	<i>1970s Non-Athletes M=49.9</i>	<i>Means % Combined</i>
Androgynous	F	4.4%	0%	4.4%
	M	2.2%	2.2%	4.4%
Masculine	F	0%	0%	0%
	M	53.3%	28.8%	82.2%
Feminine	F	48.8%	33.3%	82.2%
	M	4.4%	0%	4.4%
Undifferentiated	F	13.3%	0%	13.3%
	M	6.6%	2.2%	8.8%

Note: N= 30 and 15 respectively

The resultant frequency count revealed (see table 15), 2 female non-athletes were androgynous, no female non-athlete was classified as masculine, 37 female non-athletes were feminine and 6 female non-athletes undifferentiated. As evident, the vast majority of female non-athletes endorse a high degree of femininity. In contrast, 2 male non-athletes were androgynous, 37 male non-athletes were classified as masculine, 2 male non-athletes were feminine and 4 male non-athletes undifferentiated. As expected the vast majority of male non-athletes endorse a high degree of masculinity.

The final hypothesis was designed to test the relative masculinity of the female athlete samples.

Hypothesis 13: Those successful current female athletes will display higher levels of instrumental traits than female ex-athletes.

Table 16 –

Female Athletes (across eras) score means for Instrumentality

<i>Athletes</i>	<i>Masculine</i>	<i>N</i>	<i>Mean</i>	<i>StDev</i>	<i>p-Value</i>
Current Female	Instrumentality	30	50.1	11.7	0.638
Ex-female	Instrumentality	15	48.4	11.4	

Insignificant $p > 0.05$

A t-test conducted revealed that the differences are not significant from each other. This would imply that it is unlikely that successful athletes are simply becoming more masculine.

GENERAL RESULTS

The statistically relevant findings collectively for study one (parts a, b and c) of athletes and non-athletes are presented below. Table 17 and Graph 1 compare masculinity and femininity score means of the male and female athlete and non-athlete respondents. Comparisons of masculinity score means across athletes (52.7 and 50.1; 51.33 and 48.4, respectively), and femininity score means (51.13 and 51.6; 49.4 and 50.53, respectively) indicate that, in terms of endorsing masculine and feminine characteristics, the personality profiles of successful male and female athletes tend to be remarkably similar.

Interestingly, the masculinity score means for female athletes and non-athletes (50.1 and 40.57 respectively) and femininity score means (51.6 and 59.07 respectively), demonstrate that current female athletes score much higher on the masculinity (instrumentality) subscale of the SBSRI and much lower on the femininity (expressiveness) subscale than a control group of female non-athletes. The comparative masculinity score means for female ex-athletes and the 1970s non-athletes (48.4 and 42.53 respectively) and femininity (50.53 and 60.27 respectively) suggest the outcome here was the same as that for the current female athlete and non-athletes (refer to Graph 1). By comparison, the masculinity score means for male athletes and non-athletes (52.7 and 51.1 respectively) and femininity score means (51.13 and 41.3 respectively), suggest that the current male athletes score similarly to the masculinity (instrumentality) subscale of the SBSRI but significantly higher on the femininity (expressiveness) subscale than a control group of male non-athletes. Comparable results were found for male ex-athletes and their 1970s non-athletes counterparts. The masculinity score means (51.33 and 53.21 respectively) and femininity score means (49.4 and 40.6 respectively) would seemingly support this claim (see Graph 1). The only conclusions that could be reasonably be drawn from these data, as they stand, are that athletic success and more specifically female success is: (a) associated with comparatively high levels of psychological masculinity and/or (b) associated with comparatively low levels of psychological femininity or (c) the effective balance of both psychological 'masculinity' and 'femininity' in one's personality.

Table 17 –
*Means (and standard deviations) of Self-reported Masculinity/Instrumentality and
 Femininity/Expressiveness on the SBSRI*

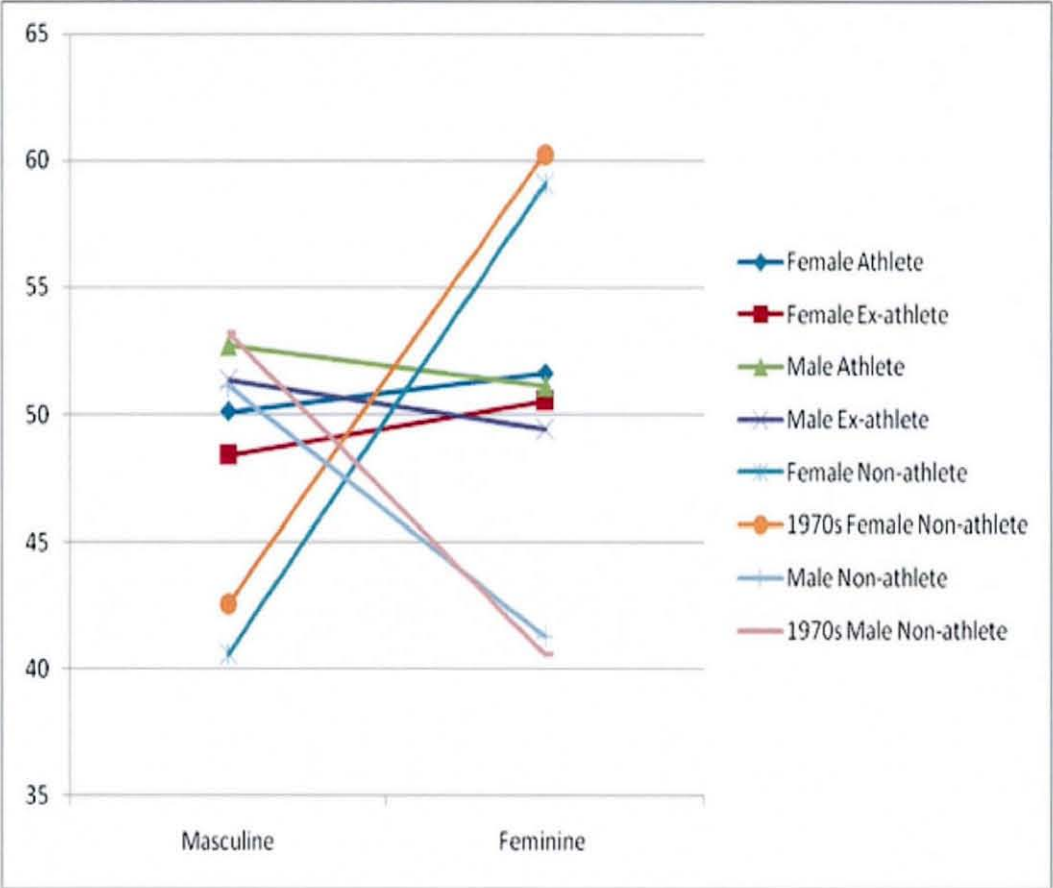
<i>Sample</i>	<i>N</i>	<i>Masculinity</i>	<i>Femininity</i>
Female Athlete	30	50.1 (11.7)	51.6 (10.3)
Female Ex-athlete	15	48.4 (11.4)	50.53 (8.00)
Male Athlete	30	52.70 (6.70)	51.13 (7.89)
Male Ex-athlete	15	51.33 (7.28)	49.4 (11.6)
Female non-athlete	30	40.57 (7.65)	59.07 (6.83)
1970s Female non-athlete	15	42.53 (5.07)	60.27 (3.53)
Male non-athlete	30	51.1 (5.49)	41.3 (4.94)
1970s Male non-athlete	15	53.21 (5.87)	43.9 (4.91)

Note: M and F scales (calculated as a composite of the 10 items) range from 10 (low) – 70 (high)

In light of the fact that there appears to be more than one potential interpretation in accounting for female athletic success, it was decided to collate the simple frequency

count across the four sex-roles to see specifically whether the extent of the androgynous, masculine and feminine sex-roles differed significantly in each athletic sample (see table 18).

Graph 1 –
Means of Self-reported Masculinity/Instrumentality and Femininity/Expressiveness on the SBSRI



The series of frequency counts conducted in table 18 revealed that the androgynous sex-role accounted for a lower proportion of successful current male athletes (one in three) as compared to the male ex-athlete (almost one in two). By comparison more current female athletes (two in five) are androgynous as compared to the female ex-athlete (one in three). Interestingly, a higher proportion of current male athletes (nearly one in three) were masculine as compared to the male ex-athlete sample (one in five). Female athletes revealed a slight decline in their masculinity sex-role (almost one in four) across both eras. By comparison, male athletes revealed a slight increase in

their femininity sex-role to approximately one in six (collectively across both eras). In contrast, fewer current female athletes (nearly one in four) were feminine as compared to the female ex-athlete (one in three).

Table 18 –
Collective Mean Sex-roles scores as Percentages

<i>Gender-typing</i>	<i>Sex</i>	<i>Current Athletes</i> <i>N= 30</i>	<i>Ex-Athletes</i> <i>N= 15</i>	<i>% Difference</i> <i>±</i>
Androgynous	M	16.6%	23.3%	-6.7%
	F	20%	16.6%	+3.4%
Masculine	M	15%	10%	+5%
	F	11.6%	13.3%	-1.7%
Feminine	M	8.33%	6.6%	+1.73%
	F	13.3%	16.6%	-3.3%
Undifferentiated	M	10%	10%	0%
	F	5%	3.3%	+1.7%

These findings do suggest a higher proportion of successful athletes tend to be androgynous first and only then the characteristics of only one personality type, namely, masculine. These conclusions, and what they imply, deserve a closer look.

DISCUSSION (c)

The purpose of study one part (c) was to determine whether the concept of psychological androgyny is attributable to athletic success among women or systemic to femininity as a whole. It was further predicted that female athletes in contemporary society were more likely to display higher levels of instrumental (masculinity) traits than the female ex-athlete. As it turns out, the status accorded the concept of psychological androgyny among women reported here is potentially two-fold: (a) it is a step closer to supporting the (TT) of the research that an individual's ability to be a successful athlete will be enhanced to the extent that he or she is able to exhibit appropriate androgynous behaviour. Or (b) female athletic success is associated with comparatively high levels of psychological masculinity or with comparatively low levels of psychological femininity. In other words, one outcome of this study part (c) using a female non-athlete sample, showed feminine women describe themselves in a manner traditional for their sex, urging support for the theory that the successful female athlete is indeed androgynous whilst simultaneously rejecting the assertion that androgyny is relative to femininity as a whole. Of course an alternative outcome could be interpreted as female athletes simply having higher levels of masculinity and lower levels of femininity compared to the control sample of female non-athletes. Which perspective is then more accurate?

The idea that female athletes possess unique or definable characteristics different from non-athletes is a common one. Previous researches have shown typically that female athletes are more androgynous, less sex-typed, or even less feminine, than female non-athletes (cf. Choi, 2000; Gill, 1994; Hall, 1981; Marsh and Jackson, 1986). Furthermore, research has indicated that women who participate in competitive sports tend to score low on traditional measures of femininity, and such women have been characterised as masculine (cf. Colker and Widom, 1980; DeGregorio and Carver, 1980; Hoppe, 1979; Mills and Bohannon, 1983; Myers and Lips, 1978; Spence and Helmreich, 1978; Williams and Miller, 1983). These results do suggest that to succeed in a specific discipline or field of sport, such as athletics, female athletes need to score higher on the constructs of androgyny or masculinity. The conclusion of the present study part (c) also finds a clear trend towards a higher proportion of female athletes as

androgynous ($M = 36.6$ per cent) in comparison to the lowly 4.4 per cent reported by female non-athletes. In masculinity nearly 25 per cent (expressed as mean percentage) of female athletes have also been characterised as masculine whereas the female non-athlete failed to register a single percent. For the insistence of femininity, less than 30 per cent (expressed as mean percentage) of female athletes have been characterised as feminine compared to an overwhelming 82.2 per cent of the female non-athlete. Undifferentiated values were remotely similar. It would seem clear from the results disclosed here, that female athletes are classified first as androgynous, and only then as having higher levels of masculinity and lower levels of femininity compared to the non-athlete sample.

A similar trend was seen in the male athlete-to-male non-athlete samples, whereby the male non-athlete indicated a greater penchant for the masculine sex-typed person ($M = 82.2\%$). Male athlete scores revealed only 25 per cent (expressed as a mean percentage) support. Of further interest are the findings that male non-athletes revealed a meagre 4.4 per cent each for androgyny and femininity, as compared to the male athletes almost 40 per cent and 15 per cent respectively (expressed as mean percentages).

Interpreting the results of study one part (c), it would seem the non-athlete is above all sex-typed and the athlete primarily androgynous, and only then sex-typed. More specifically, this current study has shown female non-athletes do not possess androgynous behaviour to any depth, but rather simply recognition of the stereotypical feminine characteristics. The outcome implies that in society, androgynous traits are more uniformly claimed by female athletes and avoided by non-athletes. This is a conclusion shown to be rather similar to that reached by previous researches (e.g. Choi, 2000; Gill, 1994) in their commentary about gender role orientation of athletes and non-athletes in general. Furthermore, when feminine athleticism has been defined as behaviour which embraces much-needed masculinity (e.g. Colker and Widom, 1980; DeGregorio and Carver, 1980) rather than simply as the blending of positive masculine and *feminine* characteristics, the contributions of this study part (c) are less emphatic but still very much evident. Masculinity for the female athlete sample at 24.9 per cent was

directly comparable with the male athlete at 25 per cent (expressed as a mean percentage) underlining its importance in athletic competence. It would seem masculinity is significant in the athletic success of female athletes. Put simply, female athletes do display more 'maleness' than the female non-athlete.

This conclusion is only partial in its exactness, because when athletic masculinity (instrumentality) was compared between female athlete samples the differences were reported as not significant which would imply that masculinity may be present, but is unlikely to account for athletic success. In other words, if masculinity was to account for females relative slow and erratic, but noticeable, improvement one would expect the proportion of successful current female athletes classified as masculine to be significantly higher than the proportion of ex-athletes (of the same gender) classified as masculine. This however was not the case. In fact, female athletes in general were less sex-typed (more or less one in six) and more androgynous (now two in five, from one in three in the 1970s). This would imply that it is unlikely that successful athletes are simply becoming more masculine.

Even so, this ideal runs counter to the traditional axiom of athletic involvement which upheld masculinity as the ideal (cf. Colker and Widom, 1980; DeGregorio and Carver, 1980 for example). Research and writings on the social construction of gender and masculinity through athleticism (cf. Bryson, 1994; Connell, 1987; Messner, 1992; Theberge, 1993) have highlighted two fundamental dimensions along which athleticism provides support for hegemonic masculinity. First, athleticism links maleness with highly valued and visible skills, and second, it links maleness with the positively sanctioned use of aggression/force/dominance. Indeed in line with this traditional view the present study found that male athletes are becoming more masculine (now one in three from previously one in five) and less androgynous (now one in three, from two in five in the 1970s) than that of the ex-athlete (of the same gender). This finding is seemingly an indication of the societal coercion that underlies the conscious processes and provides a more complete explanation of the relationship between trait masculinity and femininity in an athletic setting.

Contrary to traditional belief, study ones findings plus female's relative slow and erratic, but noticeable improvement, suggest masculinity's meaningful contribution to athletic success may be less influential than researches were led to believe and that androgyny's contribution may in fact bear out this conviction.

One explanation for the confounding evaluation of athletic success is that androgyny may have different, but as yet poorly understood connotations for men and women. That is, the question of how and why men and women become androgynous is open to speculation, and may evoke different answers depending upon patterns of socialisation. In the athletic arena still organised along sex-distinctive lines (see Colker and Widom, 1980; DeGregorio and Carver, 1980; Hargreaves, 1993 for example), failure to respect its power reflected in the characteristics and behaviour of those athletes who have somehow managed to transcend its prescriptions may be misleading, inaccurate, and unfair. Several fairly stable conclusions have emerged, however: (a) androgynous qualities are to be considered more desirable for sportswomen than female non-athletes – a sentiment resonant of Choi (2000) and Gill's (1994) amongst others, studies; (b) masculinity as currently measured would appear to be a more meaningful, discriminatory dimension in female athlete's samples than non-athletes, but not to be regarded as simply that sportswomen are becoming more male; and (c) not unimaginably, it appears likely that the origins, influences, and consequences of androgyny are not identical for the sexes. At this stage these are the pertinent points for any theoretical consideration of gender and athleticism.

ANDROGYNY IN FOCUS: A SUMMARY

It is concluded that in some respects, androgyny theory has accounted for athletes winning races and turning in performances of which they would not normally be thought capable. Androgyny theory even cogently reasons for female athletes' meteoric correction in performance differentials and in doing so has dispelled the almost universal belief that they perform at an inferior level. In retrospect, early assumptions about feminine frailty seem naive, if well-known.

On the other hand, androgyny theory has not received the clear-cut empirical support for athletic success that was first expected. In general, this research pertained to the assumption that the masculinity and femininity dimensions *each* have a powerful impact on athletic success. This view of androgyny as an ideal rests upon its hypothesised incorporation of the benefits derived from possession of each dimension. In part (a) of this study; this assumption has received some support with 36.6 per cent (expressed as a mean percentage) of the surveyed athletes identifying with androgyny. But what is missing however, from such a straightforward conceptualisation is an appreciation of how masculinity and femininity are represented. Masculinity accounted for 26.6 per cent and femininity received 21.6 per cent (expressed as mean percentages) of the athlete's sample. The only conclusions that can reasonably be drawn from these data are that athletes classify themselves first as androgynous, and only second as sex-typed.

When it comes to the athlete's appreciation of how androgyny fits within the broader spectrum of athletic success, the difference lies in how past and present athletes view androgyny. More specifically athletic annals chart women's athletic time differentials significantly improving in the past thirty years (most pronounced in the sprints) compared to their male counterparts. Over time the focus of androgyny would be expected to coincide with their athletic performance, consistent with the view of androgyny theory as a framework for success. In other words, one would expect female ex-athletes level of androgyny to be markedly lower in its scoring as compared to the current female athlete. Analysis of female ex-athletes shows 16.6 per cent (compared to 20 per cent of current female athletes) felt the necessity to identify with androgyny. In line with this result it does seem that androgyny may well be one of the

reasons female athletes perform better. But it is not conclusive. The subtle fact of a 3.4 per cent difference indicates a positive experience does not rule out the role of masculinity nor indeed femininity. Analysis of masculinity and femininity shows that the female ex-athlete had marginally higher scores (plus 1.7 per cent and 3.3 per cent respectively) than the current female athlete indicating a move away from sex-typing. Nonetheless the presence of a high degree of masculinity (11.6 per cent) and femininity (13.3 per cent) in the current female athlete or at least in their answers is not necessarily consistent with the view of androgyny theory. It appears then that athletes have apparently not entirely transcended sex-based norms of behaviour.

Unfortunately, this conclusion appears to contradict earlier assumptions about androgynous potential. This 'conceptual overclaim' was the basis of Gilbert's (1981) assertion that the ideal of androgyny has its own ideological overtones, evident in how its virtues have been extolled far beyond what empirical data would allow. As pre-androgyny masculinity-femininity research well illustrated, ideology can inhibit understanding in psychology when it is not recognised. It is fundamentally flawed to that assume masculinity and femininity have a negative effect on athletes. After all, truly androgynous personalities represent the very best of what masculinity and femininity have each come to represent (Bem, 1976), thus it is difficult to imagine how self-reported androgynous athletes would not refer to behaviours stereotypically expected of both masculine and feminine sex-roles. In this view, implications of androgynous typing for athletic men and women may be quite different, and these implications have not been extensively studied. In particular, more complete answers await analyses of whether athletes consider androgyny to be a result simply of sex-role socialisation. Nor can it be conclusively stated that it is androgyny alone in female athletes that produces the advantages.

A related concern is that to display femininity and athleticism was to experience role conflict (cf. Griffin, 1987; Hall, 1988; Spence, Deaux and Helmreich, 1985). Yet, taken together, parts (a) and (b) have shown that successful athletes of both genders felt it necessary to display high levels of expressive behaviour. The question of just what role conflict if any exists seems pertinent? That is, what are the consequences of having an

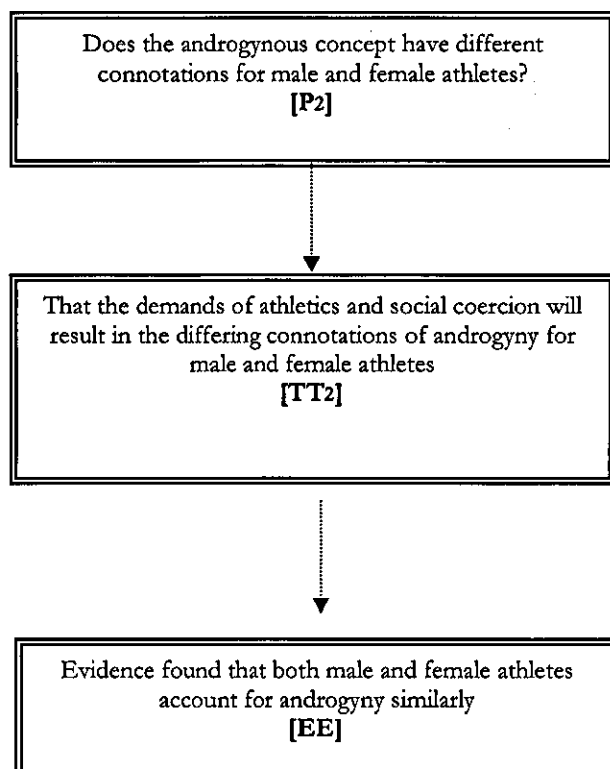
androgynous gender-role identity? How can we better understand the role diversity of androgynous athletes? The point is simply that the current conceptualisation of androgyny in relation to athleticism is inconclusive and unsatisfactory. A commitment to understanding the social coercion that underlies the conscious process needs to be recognised.

In continuation, the blending of positive masculine and feminine characteristics afforded by androgyny in an athletic setting is assumed in this study parts (a) and (b), to enjoy psychological benefits. The status given to this assumption in the androgynous literature is unclear. More data are available to support masculinity's supposedly stronger relationship to adjustment than femininity, even though femininity is not necessarily *negatively* related to positive adjustment in either sex. Which assumption then is most accurate? These assumptions indicate that judgements about what constitutes 'optimum' psychological adjustment cannot be made simply on the presence or absence of certain psychological characteristics without considering how these characteristics may interact with other facets of socialisation.

Returning to the falsification framework and Popper's question 'under what conditions will you give up your theory' (as cited in Raphael, 1998), error elimination was that:

- (i) *Evidence that successful athletes are NOT displaying androgynous traits (EE) or*
- (ii) *Only ONE of the genders displayed androgynous traits (EE) or*
- (iii) *Athletes' rate psychological androgyny as NOT important (EE) will falsify the theory posited (TT) here.*

These were not apparent. Thus, no evidence for considering the theory as falsified (EE) was found. This now allows the issues that have emerged from the initial three studies to be convened and a new problem (P₂) to be considered: *Does the androgynous concept have different connotations for male and female athletes?* Hence the theory formulation for the emergent areas may be summarised as:



As a result of what emerged, the research in the present thesis has a second tentative theory (TT2). If not falsified (EE), it may provide a solution to the preceding problem (P2). It is theorised that the existence of complex athletic roles and social coercion will result in the differing connotations of androgyny across genders. Such a theoretical framework may explain where androgyny fits within the complex set of behaviours that constitute successful athleticism.

CHAPTER 6 - PSYCHOLOGICAL ANDROGYNY:

A QUESTION OF SOCIAL CONSTRUCTION

STUDY TWO

Study one's methodical approach thus far shared a quest for objectivity and the desire to minimise bias and distortion, in its search for the whole truth. This research will now turn to a general discussion of content analysis and seek to analyse literatures as representative characters through which study two will discuss the larger social-cultural-political context in which the female and athlete have emerged. Issues to be explored through this selected representation are: feminist sociology, role diversity, feminine ideologies, comparisons between media in the 1970s and contemporary society, the blurring of reality and fiction within a specific historical and spatial context, and the (re)production and consumption of images within postmodernity. When addressing each of these issues the 'imprinting' of history, following Foucault's (1926-1984) tradition, will be analysed as a part of the 'theoretical' backdrop. From that tradition Foucault retains two key elements: the impulse to theorise and problematise the relationship between general history and the history of ideas, and a preoccupation with the human subject - how individuals are constituted as knowing, knowable and self-knowing beings.

The starting point for this investigation was the tentative theory (TT₂): the demands of athletics and social coercion will result in differing connotations of androgyny for male and female athletes. More significant yet, though, is the social prohibitions relating to the ways in which female participation in certain forms of sport are communicated. It appears that society and one of its most influential institutions, the mass media, discourage female participation in athletics by labelling it unfeminine and by trivialising women's sporting events (cf. Griffin, 1987; Hall, 1988). Similarly commentary and visuals in women's weekly magazines, those considered 'the voice of women in Britain' (Harvey, 2006) seemingly depict a model for social reality (cf. Ferguson, 1983; McCracken, 1993; Van Zoonen, 1994). This critique might include objects, such as audio footage, but are typically documents – the written record of people's thoughts, feelings, memories, plans and arguments, that are sometimes more telling than their

authors realise (Bauer, 2000). The texts selected for this investigation therefore are the athletic periodicals *Athletics Weekly* and the traditional women's magazines *Woman's Weekly* and *Woman's Own* of the 1970s and present era.

To begin with, study two will briefly address the hypotheses that this part of the research is based upon. Once this issue has been defined, the use of content analysis as the selected method of data collection and analysis can be addressed as it pertains to the specific intent of this research.

Hypotheses

Six hypotheses are therefore to be tested, based upon what emerged from the initial study of the fieldwork. The first four hypotheses concentrated principally on the athletic annals under review:

- I. Gender relations in athletics are (re)produced in media texts.
- II. That women are represented according to cultural stereotypes that associate femininity with weakness.
- III. That the reporting of athleticism for females marginalises and trivialises sportswomen's achievements.
- IV. Female athletes have been underrepresented in the text media.

The fifth and sixth hypotheses will be gleaned primarily from the sample of female magazines under consideration:

- V. Women have been framed in terms of their status in the private sphere (e.g. as wives, mothers).
- VI. Those media texts have tended to intimidate women in the ways of social and feminist ideology.

Study two of the research is therefore designed to address the specific questions of how female athletes are represented, and what sort of textual discourses about gender relations exist.

MATERIALS

Content analysis (see appendix 1.5) enables researchers to sift through large volumes of data with relative ease in a systematic fashion (Weber, 1990). Krippendorff (1980) notes that "much content analysis research is motivated by the search for techniques to infer from symbolic data what would be either too costly, no longer possible, or too obtrusive by the use of other techniques" (p. 51). Further, it is a useful technique for allowing us to discover and describe the focus of individual, group, institutional, or social attention (Weber, 1990). While technically content analysis is not restricted to the domain of text, in order to allow for replication, the technique is best suited to data that are durable in nature (Stemler, 2001). Consistent with Stemler's (2001) view the presence of certain words, concepts, themes, phrases, characters, or sentences within texts or sets of texts were considered most fitting.

According to Bauer (2000) there exist two kinds of texts: texts that are made in the process of research, such as interview transcripts and observational protocols; and texts that have already been produced for some other purpose, such as newspapers, magazines or corporate reports. The classic materials of textual analysis are *written texts* that have already been *used* for some other purpose (Bauer, 2000); however, all these texts can be manipulated to provide answers to the researcher's questions (Bauer, 2000). The next concern therefore, is whether the texts available can be said to constitute a representative sample of the universe of texts as they originally existed. In effect, is the text corpus under study, taken in isolation from its social context, thus deprived of its real meaning? In this, Bernard (2000) argues, where possible, an entire corpus should be analysed. There may however be situations where the relevant texts are so rare or difficult to get hold of that universal sampling in this sense is inappropriate (Robson, 2002). In such instances, Bernard (2000) suggests that even a single text may be enough to display something of substantive importance.

Consider the case of this research: athletic publications representative of when psychological androgyny was first initiated thirty years ago, to the present day, run into the hundreds or even thousands. Adherence to the advice of Ghosh and Chopra (2003) on sample manageable dimensions then, implies a representative sample must

be made. Here, in order to avoid distortions, it was necessary for the choice of text corpus to concentrate primarily on athletic periodical publications, which best reflected British print media of athletic coverage (as advised by Dr. Craig Carroll, Linguistic and Literature communications, Uni. of Nth. Carolina). The periodical, *Athletics Weekly*, published by World Athletics and Sporting Publications Ltd. (now known as Descartes Publishing) was identified as suitable for both research eras of representation. *Athletics Weekly* was first published in the 1940s and is a famed periodical for athletes of all levels and abilities, covering a wide range of athletic issues from training principles to athletic reports. Along with the *Runners World* periodical, *Athletics Weekly* is generally recognised as one of the two leading athletic publications (Up and Running, 2005), but differs from *Runners World* in its more focused concentration on field and track events: "In the summer it offers the very best in-depth coverage of the track and field season focusing on not only major championships, such as the Olympic Games and World Championships, but also the best in schools and grass-roots athletics" (www.athletics-weekly.com). Thus it is for this primary distinction the use of *Athletics Weekly* is favoured over *Runners World* for this research.

The research therefore draws on the literature of *Athletics Weekly* publication, in bringing to research an understanding of themes, and enables the researcher to focus on their treatment of events (Ritchie and Lewis, 2003). For the purpose of this study, *Athletics Weekly* publications that coincided with the 2006 outdoor field and track season were acquired. To get a sense of athletic content, three editions of *Athletics Weekly* from May, to the period ending July 2006 were studied. As Stempel (1952) and more recently Carroll (2006) suggest a small sample, systematically selected, is far better than a large sample of materials collected conveniently.

Unlike the present day however, the acquisition of *Athletics Weekly* from the 1970s proved difficult. Despite exhaustive attempts with the assistance of the British Library and Descartes Publishing (formerly known as World Athletics and Sporting Publishing Ltd.), only a single edition – August 14th 1976 Vol.30 No.33 – from this time frame was acquired for analysis. Elisabeth Cammell (2006), the Marketing Manager of Descartes Publishing, confirmed that due to "the archived nature of the publications

for this period, Descartes Publishing, was not prepared to release copies of *Athletics Weekly* – nor willing to photocopy such cache articles”. They were however happy for the researcher to visit their archived library, but not until a date after the ‘busy’ summer season and moreover coverage of the European Athletic Championships had concluded. Unfortunately at which point, it was too late.

To this end, Bernard’s (2000) suggestion that even a single text may be enough to display something of substantive importance, bears credence. This periodical publication may however be viewed as a ‘specimen perspective’ (Alasuuturi, 1995) and consequently may only be appreciated as part of the ‘reality’ studied.

The potential for a richer empirical analysis may be demonstrated through an illustrative empirical analysis of other mediums, for example television coverage, website reporting and so on. In this regard, the problem of synthesising the particular dimension of linguistic structure becomes laborious in terms of their being complementary with existing methods (Sydserff and Weetman, 2002). So in this case, to avoid distortions in the linguistic structure, a single sample of print media without periodicity was utilised. This sample therefore is necessarily selective.

In this respect, in the context of a well-rounded understanding this is perceivably an inappropriate sample. This merely assumes any indifference between athletes, within an athletic setting, extracted from athletic periodicals constrained by availability. Accordingly, it may not provide the fullest representation of social coercion, nor as a result *any* differing connotations of androgyny for male and female athletes. At the present state of knowledge, can we assume that athletic periodicals alone can provide reason for the superior performance time differentials of women? Perhaps athletic periodicals can provide the answers, but we need to ask whether this is the case, not simply assume, *a priori*, that it will eventuate. For this purpose, it was necessary for the text corpus to also consider the print media, which best reflected ‘the voice of women in Britain’ (Harvey, 2006). Thus, the magazines *Woman’s Weekly* and *Woman’s Own* as proxies of media coverage of women’s social perceptions were analysed. Published as part of the International Publishing Corporation Ltd. Media Group (IPC), both

magazines are representative of women's concerns and non-fictional issues. *Woman's Weekly* was first published in 1911 under the editorial banner 'our motto – practical and useful' (Harvey, 2006). *Woman's Own* entered the market in 1931, and heralded the arrival of one of IPC's traditional full-colour magazines (McAlonan, 2006). As aggregates over a longer period⁹, they represent an important aspect of public opinion in society. Such media coverage constitutes a linguistic, and at times also pictorial, representation of cultural differences, cultural censorship or cultural change (Bauer and Gaskell, 1999).

The research draws on the literature of *weekly* magazines as proxies of media coverage in constructing an understanding of culture, or the processes that make up social reality (Altheide, 1996). Contemporary issues of both magazines were readily available. To get a sense of "societal facts" (Tavşancıl and Aslan, 2001:22) two copies each of *Woman's Own* and *Woman's Weekly* were obtained during the months of June and July 2006 (selected to coincide with the summer outdoor athletic season). Despite the seemingly small sample, once again Carroll's (2006) and Stempel's (1952) advice seems prudent.

Access to both *Woman's Own* and *Woman's Weekly* of the 1970s was achieved through the British Library and accordingly circumspect of publishing rights. To this end, and perhaps unintentionally, random and autonomous sampling naturally ensued. As it transpired a 'matched' sample of two copies of *Woman's Own* encompassing the years 1973 and 1974, and two copies of *Woman's Weekly* of 1976 and 1978 were forwarded. These editions of *Woman's Own* and *Woman's Weekly* completed the documentary evidence.

⁹ IPC Media is the UK's leading consumer magazine publisher. Magazines reach over 70% of UK women and 50% of UK men – that's over 28 million UK adults (www.ipcmedia.com). *Woman's Weekly* is the No. 1 magazine for the Mature Woman with female readership at 975,000 (Harvey, 2006). *Woman's Own* is the best known classic weekly, with female readership at 1,490,000 (McAlonan, 2006).

SAMPLING SIZE AND APPROACH

After identifying the content source(s) to be studied, the researcher may then consider it appropriate to reduce the amount of text to be analysed by sampling data (Bauer, 2000). Lewis-Beck (1994) warns that if data sampling is required, however, the researcher must consider the structure of the text. For instance, the introductory and closing sections might be excluded, or, portions dealing with domestic and foreign matters might be sampled separately. Again Lewis-Beck (1994) warns, if the researcher must sample data within texts, each sample should consist of one or more entire paragraphs. This preserves some degree of semantic coherence. Sentences should *not* be sampled, because analysing sentences in isolation – even ones drawn from the same text – destroys semantic coherence, making later validation and interpretation extremely difficult, if not impossible (Lewis-Beck, 1994).

In this case, to avoid reaching biased or erroneous conclusions, the nature of the athletic periodical publications justified inference with the statements or descriptions of what has been said, done, seen etc., over and above the mere chronology of results status. In a more complex circumstance, though, one needs to understand that the selected statements or descriptions of what has been said, done, seen etc., readily make reference to both domestic and foreign events, competition, and competitors and so forth in a synthesised manner. Consequently, the identification of nationality such as 'British' or 'American' becomes obscure. Furthermore, in Lewis-Beck's (1994) view, interpreting partial paragraphs, or worse still, sentences, the researcher is in danger of semantic treason. In this case, the logical chasm between UK and non-UK athletic focus with which this research has up-held must now be bridged, but only with reference to the specific text in which the research is interested. In other words, when applying data sampling to domestic and foreign athletic passage, then the text will be related as oneness and conclusions drawn accordingly. Here, one must accept a partial trade-off between the amount of precision lost by compromising the research methodology and the amount gained from a coherent process. An example of this argument could embody whether British 'specific' representation of societal values can be discovered?

Similar adherence was observed for analysing the magazines. Statements or descriptions of what has been said, done, seen etc., were favoured beyond the simple horoscope columns, fashion, style and beauty serialisations and television listings. As Carroll (2006) suggests, stories either fictional or non-fictional, editorial features and narrative passages are probably most depictive of events and concerns in that given time. That is, they reflect the most prominent topics of discussion. Hence for this reason, constitute the majority of research to be subject to content analysis. Furthermore, Carroll (2006) states irrelevant articles can be rejected in favour of other articles as the researcher proceeds, so avoiding a skewing of the analysis. In this way, variations in media coverage across time and space are compared, in a parallel design, with public perceptions, in order to explain the social coercion in different contexts.

The body of periodicals and magazines of which there were twelve in total were then manually analysed by content to produce a select and final data sample of forty-three articles of interest to this research (please see appendix 1.6 for the complete listing of articles).

As Lewis-Beck (1994) and Neuendorf (2002) have shown there is no simple *right way* to do textual sampling. Instead, researchers must judge what methods are most appropriate for their substantive problems (Bauer, 2000; Lewis-Beck, 1994). For Bauer (2000) the theory and the problem – which embody the prejudices of the researcher – will inform the selection of the text materials either implicitly or explicitly. For instance, a small sample, systematically selected, may be far better than a large sample of materials collected conveniently (Stempel, 1952). Ultimately all considerations of sample size are practical. How many literatures can the researcher handle? Has literature been omitted? How many codes and variables are used? Where possible, this research tries to state the problem clearly, to suggest alternative resolutions (if they are known), and to suggest what kinds of information or capacities might help resolve the matter. The aim is to produce information for *procedural objectivity*, and by doing so, preserve the validity and interpretative coherence of texts as units.

DICTION 5.0: THE TEXT ANALYSIS PROGRAMME

At the heart of content analysis is the coding of material from existing sources (Alexander, 1999). Hodson (1999) suggests that after a topic is selected and a set of relevant publications identified and assembled, the researcher should specify a set of themes of interest. The publications are then read and coded according to these themes. For instance, the prevalence in the literatures of certain words or certain ideas may be coded. "These words, themes and ideas can then be correlated across literatures and patterns established" (Hodson, 1996:6).

Consistent with other researches (e.g. Bauer, 2000; Krippendorf, 1980; 2004), the preliminary stage utilised simple word frequency counts. As with other samples of enquiry, initial consideration of adjectives and nouns used in the periodical publications were tallied for the purpose of reconstructing 'maps of knowledge' as they are embodied in texts (Bauer, 2000). More specifically the research was concerned with the number of nouns or noun-derived adjectives used in the statements or descriptions of what has been said, done, seen etc. The advent of computer-assisted packages such as *Diction 5.0* specifically designed for content analysis of literatures can easily list all the words in a text, and group them into a dictionary. *Diction 5.0* published by Scolari, part of *Sage* publishing software, who have a respected reputation in this field (Patton, 2002) was selected from a range of programmes (e.g. General Inquirer, VBPro, Wordsmith, Textpack, TACT or Textstat), due to its dual capacity to perform quantitative and qualitative analysis and offers user-friendly status. The objective is to examine presence with respect to the preference for maleness over femaleness insofar as it was accounted for by the likelihood of influence over some audience.

From here, the prevalence of descriptive language was calculated, again using *Diction 5.0*. Having reviewed the various software programmes (Nud*ist and Nvivo (both from QSR), Atlas TI, EZ – Text, Kwalitan) available *Diction 5* was chosen as it uses a scientific method for determining the tone of a verbal message, and as this research is attempting to identify themes and patterns, in addition to numerical values, was an

appropriate software choice¹⁰ (Saunders, et al, 2003). This supports the study's attempt at rigor in the protocol of the research, yet allows for qualitative analysis of large amounts of literatures at a low cost within a restricted time frame (Robson, 2002). Whilst recognising this software does not actually *analyse* the text in the truest sense it nonetheless assists the researches progression by providing data enabling analyses of themes and patterns that have appeared in the literatures (Patton, 2003). The database of literatures was imported into the software and an analysis comparing the articles to a sample of contemporary texts allowed for a contrast to be made, and normative scores to be generated. To search for the verbal tone of texts, *Diction 5* uses thirty-one inbuilt dictionaries and four calculated variables to examine and process the data (Hart, 2000a; Hart, 2003). This then generates results about the tone of the text within the framework of the five semantic features that *Diction 5.0* employs and recognises. These features are formulated by linking together the scores the dictionary algorithms award to the text. These five major variables relate to *Activity*, *Optimism*, *Certainty*, *Realism* and *Commonality* (Hart, 2003).

Using a twenty thousand-item sample of contemporary texts, *Diction 5.0* can generate scores for each of the qualities suggesting what 'normal' text is (Hart, 2003). The basic unit of analysis in *Diction 5.0* is a 500-word norm. The programme default is used to generate one set of scores for the entire text (regardless of length) that allows comparison with texts of different lengths and with normative values, which are reported on the basis of a 500-word norm. Where the 500-word standard is the basic default for *Diction 5.0*, a number of specific options are available to the researcher, depending on whether the text is less than 500 words or greater than 500 words.

Where a particular text is less than 500 words, *Diction 5.0* offers two options. The default option is used to make correction counts, thereby standardising it to a 500-word basis. The second option reports raw scores.

¹⁰

$$Sm = \sum_i^n ai - \sum_j^m sj \text{ where the } ai \text{'s are additive subaltern traits and } sj \text{'s are subtractive subaltern traits.}$$

When a text is more than 500 words, the researcher has three options. The default options will generate a 500-word equivalent score. Averaging its 500-word units together does this. For that part of the text, which does not correspond to a 500-word unit, an extrapolation to a 500-word 'equivalent' allows that section to then be included in the averaging process. *Diction 5.0* also allows the researcher to analyse the first 500 words only of a text. Finally, the text can be segmented into 500-word units and each processed separately. This allows the researcher to investigate variability, for example, by comparing the first 500 words of a given text with the middle 500 words and the final 500 words.

Figure 1.4 DICTION 5: A DEFINITION OF, AND FORMULA USED

The Semantic Feature:	Subaltern Features (Dictionaries):	Definition:
Certainty	(Tenacity + Levelling + Collectives + Insistence) – (Numerical Terms + Ambivalence + Self-reference + Variety).	Language indicating resoluteness, inflexibility, and completeness and tendency to speak ex-cathedra.
Optimism	(Praise + Satisfaction + Inspiration) – (Blame + Hardship + Denial).	Language endorsing some person, group, concept or event or highlighting their positive entailments.
Activity	(Aggression + Accomplishment + Communication + Motion) – (Cognitive terms + Passivity + Embellishment).	Language featuring movement, change, the implementation of ideas and the avoidance of inertia.
Realism	(Familiarity + Spatial awareness + Temporal awareness + Present concern + Human interest + Concreteness) – (Past concern + Complexity).	Language describing tangible, immediate, recognisable matters that affect peoples everyday lives.
Commonality	(Centrality + Co-operation + Rapport) – (Diversity + Exclusion + Liberation).	Language highlighting the agreed upon values of a group and rejecting idiosyncratic modes of engagement.

Adapted from Hart (2003)

Comparison with these scores will indicate whether the identified periodical publications and magazines are within the normative framework, and thus enable conclusions on verbal tone (Stanbury, 2003). To make this a more useful comparison tool, this research also calculated for the mean score of the high and low 'normative range' and analysed the literatures in relation to this figure. Hart's (2003) use of the term 'normal range' is somewhat idiosyncratic. It does not refer to the range of plus or minus two standard deviations from the mean, encompassing 95 percent of the data, as the term is typically used in statistical analysis. Instead, Hart (2003) uses the term to indicate the range of plus or minus one standard deviation. This normal range encompasses 68 percent of the data. Any score outside the normal range is considered statistically significant in *Diction 5.0*. The standard score of an observation is the number of standard deviation units it is above or below the mean; the larger the standard score, the farther it is from the mean. This not only supports the research's quest to identify patterns and themes, but also provides an indication as to whether the text is close to the average score, or 'normal' textual tones, or is significantly above or below the norm. Here, a more explicit approach was used to number whether athleticism and, or social coercion have, or indeed has, resulted in differing connotations of androgyny for male and female athletes (TT2).

RESULTS

In analysing the results, the computer software *Diction 5.0* that examines the scope of systemic linguistics was used. *Diction 5.0* is a powerful and well-established package in the applied linguistics literature (Hart, 2000; Patton, 2002). *Diction 5.0* provides the means to detect the specific dimension of theoretical linguistics. In terms of the word frequencies, *Diction 5.0* analysis was applied to calculate the insistence score a measure of code-restriction which calculates a texts dependence on a limited number of often-repeated words. The assumption is that repetition of key terms indicates a preference for a limited, ordered world. In calculating this score, *Diction 5.0* singles out all words occurring three or more times that function as nouns or noun-derived adjectives (in 500-word text).

Insistence Scores:

Diction 5.0 insistence scores for all literatures sampled.

Table 19 INSISTENCE SCORES - DATA

Sampled Texts	Total Words Analysed	Total Characters Analysed	Number of Different Words	Insistence Frequency	Normal Range		Mean Score	Variance	Out of Range
					Low	High			
Athletics Weekly 2006	6288	33294	3192	73.56	9.15	111.15	60.15	+13.41	
Athletics Weekly 1976	3735	17753	1774	49.67	9.15	111.15	60.15	- 10.48	
Woman's Weekly 2006	10500	55296	5404	12.04	9.15	111.15	60.15	- 48.11	
Woman's Weekly 1976 & 1978	24313	135034	12636	24.13	9.15	111.15	60.15	- 36.02	
Woman's Own 2006	6731	35178	3537	30.65	9.15	111.15	60.15	- 29.50	
Woman's Own 1973 & 1974	16949	91870	8789	5.74	9.15	111.15	60.15	- 54.41	*

* Indicates Insistence frequency is out of Normal Range

The athletic periodicals manifested higher insistence frequencies compared to that of the women's magazines. In other words, the text depended upon a limited number of often-repeated words. This would imply more specificity (probably due to the limited nature of the subject and its related content), while less descriptive than the respective women's magazines. In contrast, the women's magazines revealed less code-restriction and more semantic content. Put simply, a more descriptive tone.

Textual analysis – applied:

To address the descriptive language, *Diction 5.0* was again used. The five semantic variables scores were computed using the component variables scores generated by *Diction 5.0*. To make the main lexical features (master variables) more understandable each feature is discussed in the context of gender typing.

Figure 1.5 DICTION 5.0 CATEGORIES AS GENDER REPRESENTATION

- | |
|--|
| <ul style="list-style-type: none"> • Certainty is presented as a type of subjective information available in texts. Certainty as – telling it like it is – aspects of language used to express opinions and evaluations – a confident necessity, reassurance, and emphasising of the full commitment to statements. For example, (1) <i>Women were very strong...</i> (2) <i>Not getting regular sex...*</i> |
| <ul style="list-style-type: none"> • Optimism is presented as a type of generalised expectancy that good will prevail over bad. Optimism as - expecting favourable outcomes – aspects of language used to express expectation and hope – anticipation, confidence, self-efficacy based on logical, rational facts. For example, (1) <i>there is renewed energy and hope of equality in the workplace.</i> |
| <ul style="list-style-type: none"> • Activity is presented as a type of engagement toward a certain goal or objective in texts. Activity as – the state or quality of being active - vigorous action or operation, energy, active force, something done as an action or a movement, something done for pleasure or entertainment, especially one involving movement or an excursion. For example, (1) <i>great opportunity to pioneer the changes in this country that will bring the benefits and rewards of sport...</i> |
| <ul style="list-style-type: none"> • Realism is presented as a type of awareness or acceptance of things as they are, as opposed to the abstract or ideal. Realism as - the state of being actual or real - realistic and factual description of social conditions as they actually are; inclination toward literal truth and pragmatism. For example, (1) <i>woman's 'natural' opposite – man,</i> (2) <i>women naturally seek out interaction with others.</i> |
| <ul style="list-style-type: none"> • Commonality is presented as a type of feature or characteristic held in common in texts. Commonality as - the sharing of characteristics or qualities with other individuals – aspects of language used to express generality and solidarity – integration, homogeneity, organisation, close feelings and cohesion. For example, (1) <i>we women,</i> (2) <i>a cult of femininity.</i> |

* The words in **bold** print typify the particular style of language each of the semantic variables qualify and quantify.

The default 500-word equivalent standardising text option was used to control for variation in input text length. This option generates one set of scores for the entire literature (regardless of length). For greater specificity the normative profiles of Entertainment and Literature were preferred. From here, the normative values for Sports News ($n = 139$), a collection of articles on athletes and athletic events, and Novels and Short Stories ($n = 151$), a compilation of fiction from a diverse collection of seminal writers were deemed most appropriate. Finally, Dr. Roderick P. Hart and Dr. Craig Carroll who designed the coding method verified the coding.

Case Study I – Athletics Weekly 1976:

Diction 5.0 scores for Athletics Weekly periodical covering male and female athleticism.

Table 20 CASE STUDY I

Variable	Score	Normal Range Low	Normal Range High	Mean	Variance	Out of Range
Activity	52.41	46.74	55.48	51.11	1.30	
Optimism	52.21	46.37	52.25	49.31	2.90	
Certainty	37.21	46.90	51.96	49.43	- 12.22	*
Realism	46.46	46.10	52.62	49.36	- 2.90	
Commonality	49.59	46.86	52.28	49.57	0.02	

* Indicates certainly variable is outside the normal range.

The results of the scores for *activity*, *optimism*, *realism* and *commonality* were within the normative range (\pm one standard deviation) of semantic tone. However a less definite tone for *certainty* was found, significantly below the lower range of the norm. This would imply a more opinionated rather than factual commentary. Perhaps better understood when appreciated in relation to the subject matter – much speculation and anecdotal evidence on athletes and athletic performance pre-empts any meet, where only the results confirm the certainty of these conjectures. The score reflects the literature's topic of discussion and sense of subjectivity. The above mean linguistic score for *optimism* on the other hand demonstrates the expression of expectation and hope. Linguistic style: Speculative.

Case Study II – Athletics Weekly 2006:

Diction 5.0 scores for Athletics Weekly periodicals covering male and female athleticism.

Table 21 CASE STUDY II

Variable	Score	Normal Range Low	Normal Range High	Mean	Variance	Out of Range
Activity	51.09	46.74	55.48	51.11	- 0.02	
Optimism	51.55	46.37	52.25	49.31	2.24	
Certainty	46.98	46.90	51.96	49.43	- 2.45	
Realism	50.66	46.10	52.62	49.36	1.30	
Commonality	51.33	46.86	52.28	49.57	1.76	

The semantic variables for the 2006 editions of Athletics Weekly fall within the scope of the normative ranges (\pm one standard deviation), indicating there was minimal linguistic sensationalism. By comparison the conformist *certainty* tone implies Athletics Weekly's move toward the factual – 'a sense of telling it like it is'. Linguistic style: Neutral.

Case Study III – Woman's Weekly 1976 - 1978:

Diction 5.0 scores for Woman's Weekly magazines covering female socio-culture.

Table 22 CASE STUDY III

Variable	Score	Normal Range Low	Normal Range High	Mean	Variance	Out of Range
Activity	48.18	46.74	55.48	51.11	- 2.93	
Optimism	51.66	46.37	52.25	49.31	2.35	
Certainty	44.24	46.90	51.96	49.43	- 5.19	*
Realism	51.49	46.10	52.62	49.36	2.13	
Commonality	48.25	46.86	52.28	49.57	- 1.32	

Apart from the *certainty* score, all of the master variables are reported in the normative range. The significantly below the normative range score for the *certainty* variable is indicative of media gossip. This inference is in contrast to the above the mean *realism* score which emphasises a sense of pragmatism and the *optimism* score which reflects expectation and hope tainted with rational intuition. The below the mean *activity* score reinforces a sense of inertia, whilst the marginally below the mean score for the

commonality variable conveys a move towards independence. Such linguistic variation reflects the encompassing nature of the magazines features. Linguistic style: Reflective.

Case Study IV – Woman's Weekly 2006:

Diction 5.0 scores for Woman's Weekly magazines covering female socio-culture.

Table 23 CASE STUDY IV

Variable	Score	Normal Range Low	Normal Range High	Mean	Variance	Out of Range
Activity	52.73	46.74	55.48	51.11	1.62	
Optimism	50.40	46.37	52.25	49.31	1.09	
Certainty	44.58	46.90	51.96	49.43	- 4.85	*
Realism	51.35	46.10	52.62	49.36	1.99	
Commonality	49.66	46.86	52.28	49.57	0.09	

This statistical analysis has shown that the *activity*, *optimism*, *realism* and *commonality* variables are within the normative range, rendering only the *certainty* variable significantly below the normative range (\pm one standard deviation). *Certainty's* below the range score stresses the magazines reliance on gossip. Loosening the shackles of conservative socialism should not be at the expense of reality and commonsense. By comparison the above the mean scores for the *activity*, *optimism*, *realism* and *commonality* variables express a sense of liberalism. Linguistic style: Expectant.

Case Study V – Woman's Own 1973 - 1974:

Diction 5.0 scores for Woman's Weekly magazines covering female socio-culture.

Table 24 CASE STUDY V

Variable	Score	Normal Range Low	Normal Range High	Mean	Variance	Out of Range
Activity	48.80	46.74	55.48	51.11	- 2.31	
Optimism	52.72	46.37	52.25	49.31	3.41	*
Certainty	43.87	46.90	51.96	49.43	- 5.56	*
Realism	50.15	46.10	52.62	49.36	0.79	
Commonality	49.71	46.86	52.28	49.57	0.14	

From a cursory glance it is apparent that both *certainty* and *optimism* scores are significantly below and above the normative ranges (\pm one standard deviation) respectively. The now familiar linguistic nuance of the *certainty* variable seemingly supports the notion of media sensationalism. The above the normative range score for *optimism* indicates an expectancy of good to triumph over adversity. The below the mean *activity* score however suggests a sense of inertia, whereas the meagre above the mean scores for both *realism* and *commonality* hint toward a sense of practicality and solidarity. Linguistic style: Pragmatic.

Case Study VI – Woman's Own 2006:

Diction 5.0 scores for Woman's Own magazines covering female socio-culture.

Table 25 CASE STUDY VI

Variable	Score	Normal Range Low	Normal Range High	Mean	Variance	Out of Range
Activity	50.50	46.74	55.48	51.11	- 0.61	
Optimism	51.05	46.37	52.25	49.31	1.74	
Certainty	41.05	46.90	51.96	49.43	- 8.38	*
Realism	49.08	46.10	52.62	49.36	-0.28	
Commonality	49.98	46.86	52.28	49.57	0.41	

With the exception of the *certainty* score, the remaining scores are within the normative range. *Certainty* again is below the range of the normative (\pm one standard deviation), signifying linguistic irresponsibility. Results on *activity*, *optimism*, *realism* and *commonality* are mixed. *Activity* and *realism* recount meagrely below the mean scores, implying a feeling of apathy and imagination. Meanwhile the above the mean scores for *optimism* and *commonality* would seemingly liberate womanhood. Linguistic style: Blasé.

On this basis it might be surmised that the linguistic styles reported were clear-cut: *Athletics Weekly* went from 'speculative' to 'neutral', *Woman's Weekly*, from 'reflective' to 'expectant', and *Woman's Own* from 'pragmatic' to 'blasé'. While this might be expected, the level of differentiation was less than emphatic. Generally, the linguistic styles of the 1970s publications were more conservative, only occasionally hinting at a less than pragmatic society. When linguistic optimism was mooted, caution and hesitancy tempered it. In turn, this induced a tone of seclusion and inertia. In

contrast, but not overtly, the contemporary publications were more universal while less reserved. A greater sense of linguistic change was noted emphasising group identity and action. In the absence of conspicuous differentiation, a faint but nonetheless detectable recognition in the discipline of linguistics from a formalist to a functionalist paradigm was illustrative. In short, the linguistic dimensions found the 1970s publications informative but less informing than their contemporaries.

DISCUSSION

Study two has tackled the specifics of content analysis and how it can be used to interpret written text. This discussion brings together particular questions about how the ideology of feminism is communicated in the literature. In what ways have their messages altered or stayed the same in the context of a changing society, and, what does this suggest about women's role within society – and possibly in athletic concerns? Collectively and cumulatively what do these publications suggest in relation to women's understanding of androgyny? The field of study to which these questions were addressed focused on athletic periodicals whilst drawing upon women's magazines in Britain for exploratory and comparative purposes. From these materials, study two argues that it is possible to analyse from an ideological perspective the content of a literary environment for the nature and extent to which it delivers a philosophy of what constitutes femininity.

Of the total of twelve periodicals and magazines surveyed, there is evidence toward a more liberal society. The athletic periodical of the 1970s obtained here underscores the fact that the print media then reported more speculatively and less factually than that of contemporary society. Analysis conducted on the *weeklies* to examine for feminine gender typing also showed differences between publications of the 1970s and publications of modern society in terms of linguistic style and tone, expression of liberalism and cultural conceptions. More specifically, with reference to linguistics the 1970s *weeklies* demonstrated a sense of restraint and pragmatism, termed by Pagano (2008) as a 'social structure' that consisted only of retrograde imagery. By comparison, the contemporary magazines portrayed a more hopeful and a less restrictive attitude. In this vein, the contemporary magazines appealed to the all important shifting feminine demographic, while at the same time, they avoided claims of outright effeminate remorse. This means that print media taken as chronological annals of societal 'imprinting' has shown some evidence of social indoctrination. Thus providing support for the researches second tentative theory (TT₂).

In light of the use of the computer-assisted package *Diction 5.0*, as mentioned previously, the six hypotheses of the study were cast to read the five semantic features

that *Diction 5.0* employs and recognises (see figure 2.1). Each will now be discussed with respect to the articles under review.

Study two's appreciation of the coverage of sportswomen in *Athletics Weekly* periodicals over a thirty-year period found evidence of *certainty*, occupying what would best be described as a contradictory role between accommodation and resistance. At one level, the periodical portrayals appeared to be providing an empowering representation for their women readers as features very much promoted the athletes as successful and skilled women: 'talented runner', 'excelled', 'hungry young sprinters' (*The Pride of Hull AC*, AW 2006), 'accomplished', 'impressive sprint' (*Malaga Athletes Return*, AW 2006), 'improved massively' (*Brits Hammered by Best of Europe*, AW 2006), 'sparkling run', 'very promising', (*English Schools Championships – Girls Events*, AW 1976), 'totally dominant', (*Women's 200 Metres (Final)*, AW 1976) and so forth. A *certainty*, in a sense, which does give women recognition and reassurance in the contemplation of athletics. On closer examination the periodicals in study two revealed what Pirinen termed a "disguise of disempowerment" (Pirinen, 1997b:296) by subtly constructing archetypal notions of female debility. One way this was seen was in the focus on the athletes' bodies and their vulnerability. These representations were not necessarily like stereotypic depictions perhaps because the athletic female wasn't stereotypic, but two specific representations were nonetheless distinguishable in this study. These were the physical-looking body and the psychological-focused body. The former physical body was clearly disparaged through the continual highlighting of the unattractiveness of the feminine-looking athlete. The periodicals in this study provide some examples such as these comments: 'who with an ungainly, over-striding', 'the very tall' (*English Schools Championships – Girls Events*, AW 1976), 'renowned for her strength' (*Women's 200 Metres (Final)*, AW 1976), 'women were very strong', (*Brits Hammered by Best of Europe*, AW 2006). Here, it is perfectly clear to see that the focus is on aesthetic appeal rather than sporting competence and likened *only* in the athlete's maleness. The stereotypical image of the female athlete was reinforced rather than challenged, thus cementing the images and divisions between 'feminine appropriate' and 'male appropriate' sports. In the case of the psychological-focused body, descriptions of the female athletes supposed pain and anguish were highlighted: 'began to fade' (*Woman's 200 Metres*

(*Final*), AW 1976), 'failure', 'falling by the wayside', (*English Schools Championships – Girls Events*, AW 1976), 'exhausted myself', 'short of fitness', 'below-par performance', 'stretchered off the track', (*Brits Hammered by Best in Europe*, AW 2006). Instead of challenging archetypal notions of femininity, such comments as reported in this study informs the reader of the weak and retiring female, and serve *only* to reinforce traditionally held assumptions (Andrews, 1998; Pirinen, 1997b). Obviously, a strain of *certainty*, designed to deter women from striving for maximal success and high achievement in athletics. Thus, it seems a paradox exists between how *certainty* is used in the sense of athletic women. On the one hand there's a *certainty* in the encouragement, acclamation, recognition and reassurance of the female athlete. On the other hand, a *certainty* exists in how the roles of the physical-looking and psychological-focused athlete are aesthetically depicted. It seems the only *certainty* that could be reasonably drawn from these data, is that female athletic success is being accommodated and resisted simultaneously.

Upon initial review of the British woman's magazines *Woman's Weekly* and *Woman's Own* much of the tone is directed from *certainty* to *uncertainty*, from demur to avant-garde, conservative to risqué, conformist to activist. A great deal of change through the years has led to the frontiers of the permissible being pushed back; the range of topics that could be talked about widened, to become less inhibited by tradition or taboo. For example, study two found that women occupy a more *social* rather than *domestic* role (Gauntlett, 2002). The pretence that *certain* 'things' did not happen – particularly to do with sexual behaviour – was replaced by a new frankness concerning what women could, and did do. For instance, a 'materially secure future' (*Romance in the Air*, *Woman's Own*, 1974) was replaced by 'mindless flings' (*The Movie Star*, *Woman's Own*, 2006), 'match-making mamas' (*For Better or Worse*, *Woman's Weekly*, 1976) substituted by 'online dating' (*A Good Man is Hard to Find*, *Woman's Own*, 2006) and the 'constrictions of spinsterhood' (*For Better or Worse*, *Woman's Weekly*, 1976) redefined as 'not getting regular sex' (*A Good Man is Hard to Find*, *Woman's Own*, 2006). The *Weeklies'* traditional definitions of femininity, evidenced in their traditional editorial mix of cookery, knitting and escapist fiction while still covered were expanded to include biographies of the successful career women and social policy. The short

stories too, which formerly concentrated on the topic of 'the perfect man' were broadened to depict not one but several different themes. Essentially, if there is a feminist discourse, it is of the liberal feminist ideology (women's concern to obtain liberation) (Van Zoonen, 1991). Yet this conclusion seems only partial in its accuracy.

In contrast, the overall impression was that the scope of their normative direction, was truly remarkable. As McCracken (1993) purports, individual narrative aspects – from editorial features, to advice columns and voyeuristic documentary fiction – appear to combine to create a grand narrative that aims to persuade its predominantly female readership to a consensual view about reality, by invoking dominant social themes. The themes apparent in this current study are best surmised as: Overcoming misfortune (e.g. *Next of Kin*, Woman's Weekly 2006; *My Little Girl was Sent to Save Me*, Woman's Own, 2006; *Reunited to Help our Cancer Pal*, Woman's Own, 2006), finding love (e.g. *A Good Man is Hard to Find*, Woman's Own, 2006; *A Wife for Charles*, Woman's Weekly, 1976; *Invitation to Love*, Woman's Own, 1973), roles and responsibilities (e.g. *Who Works Harder – a Man or a Woman?* Woman's Own, 1973; *A Whole Life in Modelling*, Woman's Weekly, 2006; *How to Make a New Start*, Woman's Own, 1974) and family values (e.g. *The Day After Tomorrow*, Woman's Weekly, 1978; *Viking Song*, Woman's Weekly, 1976; *The Triplets with Two Mums and One Dad*, Woman's Own, 2006). These themes were presented differently in this study but yielded similar results to Ferguson, (1983) McCracken, (1993) and Van Zoonen, (1994). Ferguson (1983) found only two themes emerged as consistently dominant. First, there was love and marriage – and the family – as peaks of female experience and satisfaction. Second, there was the heavy emphasis placed upon 'self', and the responsibility ethic laid upon every woman to be entering the self-starting, self-finished producer of herself. Ferguson (1983) further contended that these magazines teach or instruct women how to behave as a 'normal' member of society. They socialise their audience into a "cult of femininity" (Ferguson, 1983:5). McCracken (1993) argues that the underlying ideological structure – the use of utopian solutions such as the perfect lover, dress, job etc., still reflect the ideal goal for women's lives. McCracken argues that women are encouraged to feel part of a 'utopian community' by these magazines – a cult of femininity? Similarly Van Zoonen (1994) contends woman is normally

portrayed as wife, mother and housekeeper (thus reinforcing conventionally assigned roles and limiting women's professional horizons). The voice of the authors in all these contexts resonates with exactly the same register of identity as that of this study, and in contrast to liberal feminism reflects that of anti-liberalism (Kaplan, 1987; Van Zoonen, 1994).

Herein, lies the *certainty* to *uncertainty* debate as evidenced in this study. Although increasing feminisation of women in the social domain and the subsequent decline in recognition of domestic obligations by females have now somewhat altered the representation of women in the magazines over the past three decades, the *uncertainty* remains clear. Women were found in this study to be represented with stereotypic and gender-socialised images of 'female lives' – a 'cult of femininity' (cf. Ferguson, 1983; McCracken, 1993; Van Zoonen, 1994). In this context, the magazine is responsible for the continuation of these prejudices and stereotypes through the representations of femininity it creates and reinforces.

The next most crucial finding identified here, was the intimate tone employed to address the reader, the cosy invocation of a known *commonality* between 'we women'. Despite status, wealth, class, and race distinctions, the magazines assume a shared experience between women: 'the apathetic husband' (*A Snug Fit*, Woman's Weekly, 2006), the 'undesirable panty line' (McCracken, 1993), or 'facial wrinkles' (*Unwind Yourself*, Woman's Weekly, 1977). Women at the magazines' urging, experience a sometimes real and sometimes utopian sense of community while reading these texts (McCracken, 1993). It is as though magazines figuratively assimilate an idealised individual consciousness to a similarly idealised group consciousness as one of their primary narrative strategies (McCracken, 1993). This construction of women as a homogeneous group, or even a group at all, is primarily achieved by the invocation of its supposedly 'natural' opposite – men (Ballaster, et al, 1991). There is as Ballaster, et al, (1991) explains, an evident tension between the need to confirm the centrality and desirability of men in all women's lives and the equally insistent recognition of men as a problem and threat to women. This analysis of men as problematic is congruent, up to a point, with a feminist analysis of relations between men and women as quasiclass

conflictual relations, relations of domination and oppressions (Ballaster, et al, 1991). Here, then, is an example of a formal, textual feature of the woman's magazine – the intimacy of the editorial or journalistic 'we' – which works to define its content or theme, woman. It is in effect as Kaplan (1987) maintains, radical feminism (the designation of women as different from men and the desire to establish female communities to forward women's needs). Magazines make the proliferation of feminism possible (Van Zoonen, 1991).

As well as contradiction within the magazines, this study found both publications continually stress the qualities of being a woman and highlight their positive attributes. These positives attributes show how the mirror women's magazines hold up to women, reflects them in a flattering and positive light. Their real world and dream world reflections are backed with the glint of powerful reinforcement (Ferguson, 1983). It is in this light that we must read the magazines own protestations of *optimism*, their stress on the difference between 'party girl' (*Viking Song*, Woman's Weekly, 1976; *The Movie Star*, Woman's Own, 2006) or 'career woman' (*Get Active*, Woman's Weekly, 2006; *Who Works Harder – a Man or a Woman*, Woman's Own, 1973) and the rest of the vast undifferentiated mass of (by implication) boring and conventional women – 'silly little girls and dotty middle-aged ladies' (*The Way I see It*, Woman's Own, 1973). Readers of magazines such as *Woman's Weekly* and *Woman's Own* are presented with examples of superwomen, an endless procession of successful, beautiful and inspirational role models to envy or emulate (Ferguson, 1983; Hesse-Biber, 1991). For some women, there may be nowhere outside the pages of these magazines where they are consistently valued so highly, or accorded such high status. Notwithstanding the contradiction apparent, the magazines almost without exception depict *reality* firmly in the face of *optimism*. Their repertoire of editorial features, true-life stories and voyeuristic documentary fictions, up to a point, feature for example, the role of mother (*The Little Girl Was Sent to Save Me*, Woman's Own, 2006), wife (*A Wife for Charles*, Woman's Weekly, 1976), housekeeper - 'Helen was hand washing Philip's best mohair sweater at the kitchen sink' (*Invitation to Love*, Woman's Own, 1973), but only up to a point. For, after all the very 'unreality' of the representations in a magazine such as *Woman's Weekly* or *Woman's Own* is an important element in the *optimistic* embellishment

of the female readers it inspires. In effect, without the sense of unrealism women have little to be *optimistic* about.

This confusion between the magazine's function as a disseminator of fantasy and *optimistic* 'ideals' for women and as a means of representing the *reality* of women's lives in all their diversity, difficulty and confusion continues to bedevil any attempt by this study to assess the ideological effects on its readers. Put simply, is it possible to ascertain whether readers consider the representations of femininity offered in the magazines as '*reality*', and, if they do, it may well be that the 'party girl' and the 'career woman' is, in *reality*, distinguished from her 'sisters' by her lifestyle patterns. The differentiation to the reader is then bound up with the exigencies of capitalist markets; collective character is determined by what we (are able to) buy into. By doing so, people are inclined (unwittingly perhaps) with factions of Marxist feminism (the linking of specific female oppressions to the larger structure of capitalism) (Kaplan, 1987). One might conclude, then, such *optimism* is patently false. *Optimism* clearly comes at a price most women can not afford.

The featured magazines in this study also provide the syllabus and step-by-step instructions, which help their predominantly female readers to socialise under the tone of *activity*. Many analysts have been struck by the *inactivity* tone employed to address the reader, the sheer passive virtue of the female. Ballaster, et al, (1991), in analysing the conformist ideology of women's magazines identified stoical resignation and passivity as virtues of womanhood. Others too (e.g. Modleski, 1984; Phillips, 1978, Walkerdine, 1984) have contended that the 'passive' virtue of the woman will bring its reward (presumably intrinsic). What makes the magazines particularly interesting in this sense is that their instructional and directional remedies are concerned with more than the appropriate values and attitudes. They tell women how to behave and act amongst themselves, in relationships, at work or play, across a wide spectrum of feminine concerns. Much of what is found is to some extent familiar with this study's results. Passivity; a submissive relatively inactive state (Oxford English Dictionary, 2006) and not *activity* appears the dominant tone: 'The Ben she'd always been able to depend on' (*Let Battle Commence*, Woman's Weekly, 2006), 'her parents had disapproved

of her fiancé' (*Echoes*, Woman's Weekly, 2006), '...he will ignore me pointedly, serving other, male customers first' (*The Way I See it*, Woman's Own, 1973), 'you ought to be glad he married you, that ought to be enough for you' (*The Curse of the Kings*, Woman's Own, 1974). The fact that passivity exists at all makes a statement about the position of women in society as one which requires separate consideration and distinctive treatment. As Ussher (1997) states, in being positioned in this way, the script of heterosexuality reinforces 'man' as in control and active whilst 'woman', is depicted as passive, as other and marginal to 'man'.

This is not to say that tone of an 'active' nature never features in the magazines – it does. Indeed, the *activity* tone is an important communicative tool whereby the magazines analysed here, empower women: 'I remained set on becoming a horsewoman' (*A Whole Life of Modelling*, Woman's Weekly, 2006), '...yet, I had an irresistible urge to come face to face with my fears' (*The Curse of the Kings*, Woman's Own, 1974), 'I'm travelling alone' (*The Way I See it*, Woman's Own, 1973) and so forth. As a result of their tone of empowerment they also, find themselves contextualising the empowered woman as threatening. This is most evident in the biographies, in which women who succumb to their empowering desires more often than not also succumb to threatening, defensive and even confrontational behaviour: 'Younger men feel threatened by me because I'm direct and speak my mind' (*My Looks Put People in a Spin*, Woman's Own, June 2006), 'I'm basically a no-nonsense sort of person' (*A Whole Life of Modelling*, Woman's Weekly, 2006), 'I do sometimes have to defend myself', '...our reason for being on this planet is to be an activist' (*Get Active*, Woman's Weekly, 2006). Given these associations between the portrayal of women in the spheres of activity and passivity, between powerlessness and dependence, empowerment and threatening it is of little surprise that women become trapped between the very contradictions and paradoxes magazines ostensibly promise to resolve.

With this in mind, the "ostensibly authoritative grand narrative of reality" (McCracken, 1993:2) developed week after week in these publications provided a more critical eye toward understanding the feminist nature of the content and the extent to which these publications improved or advanced the positions of women, but can texts intended for

the entertainment (or subordination) of women ever be liberating? In decoding themes of feminist discourse, Ogunyemi's (1993) classifications point to a medium that is purely feminist in its orientation in terms of telling women what to think and do about themselves, their lovers, husbands, parents, children, colleagues, neighbours and bosses. Add to this the concept of 'agenda setting', which is directed at women through the pages. In other words, the texts tell the female readers what to think *about* if not exactly what to think. A sense of passivity itself perhaps? Here then, is a very potent formula indeed for steering female attitudes, and behaviour along a particular path of femininity and a particular female world view of the desirable, and the possible (Ferguson, 1983). In effect, as a social institution, '*weeklies*' play a part in shaping the characteristics of femininity, because they themselves are part of, and contribute to, the culture of society as a whole.

The articles reviewed in this study do render under analysis what might be termed "resisting reading" (Ballaster et al, 1991:173), exposing the ideological and social contradictions that cause problems for the business of "independent femininity" for women. Elements of both trivialisation/marginalisation and feminist discourses were identified in the articles. The trivialisation/marginalisation discourse framed women's involvement in athletics as accommodating and portrayed sportswomen's abilities as 'weak and retiring'. This was done by giving women's athletics scant coverage and by framing women's achievements as likened only in her 'maleness'. Sportswomen's abilities were called into question by making inappropriate comments on performance by archetypal objectification of women athletes. There were some examples of 'positive' representations of women predominantly in more recent editions, but the articles that represented women in this way were relatively brief. Nonetheless the very fact that contemporary articles are at least gravitating towards the equality discourse suggests the unmasking of discriminatory practices and removal of barriers that prevent 'independent femininity' and full participation in athletics for women.

The women's magazines attempted to promote a collective female social 'reality', the world of women. On the surface, the independent woman is urged to achieve her full potential outside the home as well as within it. Covertly however, she carries within

her the cultural clone of the wife and mother of yesteryear whom she still is expected to replicate. These results demonstrate the extent to which women are simultaneously presented with messages on two wavelengths. Yes, get out there and show the world you are someone in your own right,' but also 'remember you must achieve as a wife and mother, too' (Ferguson, 1983; Hermes, 1995). In other words, to be an independent woman meant fulfilling two roles, both domestic and career whilst within each meeting standards of cultural acceptance. Not surprisingly this is the sphere of social change where the interplay between forces of tradition and innovation are most tantalising and obscure. If females over the past three decades have developed a stronger sense of selfhood, competence and self-esteem through increased education, travel, paid work experience and sexual awareness, (as overtly the contemporary magazines would have you believe) they may be less dependent than formerly on social direction and fulfilling both roles. Whether this doctrine has taken on a life of its own and become a self-fulfilling prophecy whereby women's involvement in the androcentric arena of athleticism is somehow conventional, is a question which is much more germane to women's conceptualisation of androgyny.

The print media of study two would offer some confirmation to the probability that feminine independence is confined within the parameters of social acceptance and driven by cultural conceptions of femininity. Accordingly, this may imply that there are theorised differing connotations of androgyny for female as compared to male athletes, however, for a more complete analysis, a composite framework of both textual and *pictorial* information is needed. As Callanan (1998) claims pictures reveal the underlying meanings that are present within the text. Such interpretation and meaning of the pictorial element Callanan (1998:22) continues "contributes to the reader's expectations, which can, in turn, influence their attitudes, belief and behaviours". At this point then, the specific questions of how these women were *visually* represented, and what sorts of visual strategies were applied in constructing gender relations is necessary.

CHAPTER 7 - PSYCHOLOGICAL ANDROGyny:

A PICTURE OF SOCIAL CONSTRUCTION

STUDY THREE

The verbal print media has been variously accused of 'coercing' independent femininity for women. This alleged coercion could take the form of their pictorial depiction as well as linguistic usage. The common view is that sportswomen are under-represented and sexualised by the media, as the absence of women in general or their sexualisation when present is the norm (Bate, 1988). In being positioned in this way, the picture of heterosexuality reinforces 'sportsman' as in control and active whilst 'sportswoman', despite her participation, is depicted as passive, as other and marginal to 'sportsman' (Ussher, 1997). Not surprisingly, therefore, the pictorial media of women's magazines tend to present the woman as a wife, a mother or a housekeeper in opposition to the male, who does not have such a portrayal (Tuchman, et al, 1978). In this context, it is often felt that the female is viewed as no more than someone to merely cater for the basic needs of the male. The female is thus presented as the male's beast of burden and source of creature comforts. The issues of interest therefore in this study are manifold. The first is: Are sportswomen trivialised/marginalised by sexual objectification and framed in terms of their 'maleness'? Secondly, are women portrayed pictorially as wife, mother or housekeeper? Thirdly, how effective in changing the way women are portrayed pictorially has the influence of time proved to be? Fourthly, what role do women play in their pictorial portrayal in the media presently? Lastly, are women pictorially represented according to cultural stereotypes that associate femininity with a 'cult'? In order to find answers to these questions, and assuage the concern of Eco (1994) and Merten (1995), Bauer's (2000:145) advice "*not to depend on the text alone*" seemed prudent. For these reasons, content analysis as employed here, and congruent with the research's complimentary design consolidated both textual and *pictorial* analysis.

Hypotheses:

Four hypotheses are therefore to be tested. The first three are based on pictorial representations of the sporting woman.

- I. Discourses on gender relations in athletics are (re)produced in media pictures.
- II. Pictorially, sportswomen have been trivialised/marginalised by sexual objectification.
- III. Female athletes are pictorially underrepresented in the media.

The fourth hypothesis will be made primarily based on the pictorial representations of female magazines under consideration:

- IV. Women have been pictorially portrayed in terms of their status in the private sphere (e.g. as wives, mothers).

MATERIALS

The pictorial materials will come from both periods of interest. More specifically, the periodical *Athletics Weekly* and the magazines *Woman's Weekly* and *Woman's Own* which were described in detail earlier (thus that information will not be repeated here), were identified as suitable for both periods, and in order to facilitate research consistency. Such empirical comparisons reveal 'differences' that may be observed between coverage of different literatures by appearance, representation, image, illustration, pictures and so forth, to identify and evaluate achievements against established norms, for example on obscenity, discrimination or 'objective' photography. It is therefore this underlying structure and the rules it embodies which will inform study three, providing at the end a meaningful reading of the pictorial analysis under scrutiny.

SAMPLING SIZE AND APPROACH

Study three will concentrate exclusively on photographic images, thus making a clear distinction from illustrations. The choice of pictures for this study came from publicity and celebrity pictures of real people only. This selection method should avoid a skewing of analysis associated with misinterpretation of caricature or sketch depictions, for example, gender entity or facial configuration.

The selection of magazines (as previously explained) of which there were twelve in total, were then manually sifted by pictorial content (adhering to the rules of sampling) to produce a select and final data sample of two-hundred and eighty-nine pictures of interest for this research.

Figure 1.6 PICTORIAL SAMPLE

Magazine:	Year:	Pictures Totals:	* Size Range:
Athletics Weekly	2006	Ninety-four pictures.	A4 – Passport
Athletics Weekly	1976	Eight pictures.	A4 – A6
Woman's Weekly	2006	Forty-four pictures.	A4 – Passport
Woman's Weekly	1978	Eleven pictures.	A4 – A6
Woman's Weekly	1976	Fourteen pictures.	A4 – A6
Woman's Own	2006	Ninety-two pictures.	A4 – Passport
Woman's Own	1974	Twelve pictures.	A4 – A6
Woman's Own	1973	Fourteen pictures.	A4 – A6

* Size Range is rounded to the closest approximate.

At this point, it seems the analysis of pictorial culture is all that remains to be made. Its content, however, as Sonesson (1993) would have said, is determined beforehand.

METHODS OF MEASUREMENT AND ANALYSIS

Determining the pictorial images was deemed very significant, as people tend to notice pictures and then read related text (Alexander, 1999). A pictorial analysis of both the athletic periodicals and weekly magazines, new and old, was conducted by correlating the number of sampled images in each literature source according to a set of categories (cf. Alexander, 1999; Bhattacharyya, 1997). But as Loizos (2000) rightly questioned, what are these categories, and moreover how are they decided upon? The categories also have to be explained/outlined; that is, an explanation has to be made of what indicators one is looking for when making each and any kind of categorisation. Thus, in looking at what is featured in the literature sample, Loizos (2000) believes pictorial categories might be concerned with such aspects as: *Location*, where does the action take place? *Subject matter*, what is it about? *Actors*, who are represented carrying out the actions referred to? *Motion*, are the actors engaged in activity? *Volume*, what size is the picture? In this way, a representative sample determined by the literature contents informed the categories.

More specifically, the pictorial images were analysed in accordance to *location* and were classified as to what the photographic content of each picture was. For example, the location was sub-categorised according to the physical environment in which the picture was set. Pictures of athletics were divided between a social environment and an athletics backdrop (i.e. at a stadium, athletic meet, etc.). In the *weeklies* such settings included the work environment where evidence of an office or occupational ambience was apparent. This differed to the domestic environment which was concerned with household chores both internally and externally (i.e. vacuuming, gardening). Finally, the social environment encompassed those settings principally neutral in value and often involved members of family or friends and could be construed as either active or passive (i.e. relaxing whilst watching television or exercising). The images were then subject to categorisation according to *subject matter*; this was concerned with the nature of activity apparent. For instance, whether the activity involved was shopping, eating, relaxing, exercising and so forth. To maintain consistency, the nature of activity was also determined by the literature contents. In this case, the key natures of activities were: shopping (both household and personal), eating (*inc.* drinking), relaxing (which

included an array of pastimes for instance, watching television, reading, sun-bathing and so forth), exercising (e.g. mostly games as opposed to sports, gym or home-based exercise, walking the dog etc.) and working (which were either career or domestic in context). This is by no means an exhaustive list, but designed specifically to be sufficiently general to include most activities whilst being adequately selective to avoid a never-ending sprawl. From here, the pictures were then assessed by *actor* content. That is, according to the number and gender of people. However, due to the character of the magazines being analysed and moreover the detail prompting the researches tentative theory (TT₂), the actor content will concentrate particularly on the female gender. In addition to the number and gender of people, athletes, when portrayed, were categorised according to whether they were British or International. These categories were then classified according to the level of *motion*. Motion, simply makes reference to whether the people featured were active or passive in setting. By way of example, a domestic activity could be construed to be either active or passive e.g. knitting. Percentages were then calculated so as to establish exactly what areas were emphasised and more importantly to determine the change in focus, *if any*, between the 1970s and contemporary literature. These have become 'social facts', in Durkheim's (1964) phrase and they cannot be ignored.

Beyond this, the athletic periodical publications were analysed particularly to establish whether the athlete(s) was in an athletic setting or social environment, active (*action* image) or passive (*stationary* image), as well as whether the athlete(s) was representing Britain or an international destination. Consequently, the identification of nationality should assist in the discovery of 'specific' representation of societal values, thus limiting the negative impact identified by concentrating on text alone. Percentages were calculated against the total number of images containing any kind of athletic involvement in order to establish the focus of both periods and to determine how the focus has changed over time.

Finally, with regard to pictorial analysis, the size of the images was considered in order to determine if period, gender, role-delineated etc., were portrayed in a larger or smaller format. Additionally, the setting and content were correlated against various

image sizes. The image sizes were divided into simple categories of A3, A4, A5 and so forth. Percentages were calculated against the total number of images in each periodical and results compared. In sum, heeding Loizo's (2000) advice this study distinguishes the categories *Setting*, *People*, *Activity*, *Movement* and *Size* using the specifically modified acronym of SPAMS:

Figure 1.7 SPAMS

Categories:	Categorisation:
S etting	What physical features are evident in the setting: Work environment (career, office, etc.)? Domestic (depicting family life, gardening, vacuuming, etc.)? Athletic orientated (field and track)? Social environment (Exercise, relaxing, shopping etc.)?
P eople	What people are represented: Male? Female? British? International? Athlete?
A ctivity	What kinds of activity are apparent: Athletics? Shopping? Eating? Relaxing? Exercising? Working?
M ovement	What movement is captured: Active (action, running, jumping etc.)? Passive (stationary, resting, relaxing etc.)?
S ize	The size of the pictures: A3? A4? A5? A6? Passport?

Personal Framework (2006)

This useful imposition of categorisation is a necessary act of transparency for evaluating good practice in content analysis. In essence, a picture must 'fit' or 'reinforce' (Alexander, 1999) what is mentioned in the text, thus guiding the interpretation, that is, reinforcing the focus on athletics and social coercion (TT2).

RESULTS

The results of the *Diction 5.0* software have been augmented with pictorial analysis. Adhering to Loizo's (2000) advice, the component variables of the SPAMS acronym provide the means for detecting the statistical measure of the percentile difference between the pictorial samples as a whole (please see appendix 1.7 for the complete statistical data – a summarised version is provided in table 24). In other words, the difference among the percentile scores on two or more variables of interest. In this way, the pictures can provide a quantitative value of meaningful difference and discussion between the then and the now.

Table 26 SUMMARISED SPAMS SCORES FOR REVIEWED PUBLICATIONS

SPAMS Magazines	Athletic Weekly 1976 - 2006 % Difference	Woman's Weekly 1976-78 - 2006 % Difference	Woman's Own 1973-74 - 2006 % Difference	Weekly's Combined 1973-78 - 2006 % Difference
Female	+34%	+8%	-6%	-4%
Male	-34%	-8%	+6%	+4%
British	+67%			
International	-67%			
Athlete	0%			
Non-Athlete	0%			
Shopping		-15%	+1%	-4%
Eating		+2%	+3%	+2%
Relaxing		+24%	+1%	+7%
Exercising		+11%	+8%	+9%
Working		-23%	-14%	-15%
Active	+22%	-19%	-4%	-8%
Passive	-22%	+19%	-4%	+8%
A3	0%	0%	0%	0%
A4	-11%	-31%	-16%	-23%
A5	-8%	+6%	-1%	+1%
A6	-30%	-20%	-27%	-23%
Passport	+48%	+45%	+45%	+45%

Adapted from Loizos (2000)

Pictorial Study I – Athletics Weekly 2006 – 1976:

In the *Athletics Weekly* female photography has a 34 per cent increase at present compared to the 1970s. For men, scores may have decreased but still represent an 8 per cent preference. At the present time, *Athletics Weekly* yields higher scores for active photography (22%) than in the 1970s. When evaluated this equates to 55 per cent for male active photography and 45 per cent for females. Overall, the statistics indicate some convergence as expected, but not as significant as would be desirable for international literatures of athletic prestige.

Pictorial Study II – Woman's Weekly 2006 – 1976-78:

Examination of the statistical properties of *Woman's Weekly* provides some interesting insights. The present female representation yielded a somewhat higher percentage (8%) than the 1970s. For *Woman's Weekly* 2006, the activity categories reported that relaxation (24%) and exercise (11%) showed larger percentage gains, whilst working and shopping decreased by 23 per cent and 15 per cent respectively. In turn, this induced a 17 per cent increase in the category social-setting compared to the 1970s and, at the same time, a significant decrease in domesticity at 11 per cent. The results suggest that the content photography within the literature was significantly differentiated.

Pictorial Study III – Woman's Own 2006 – 1973-74:

For *Woman's Own* all percentage differences were small to moderate in size, and different, to some extent, by category. Female representation was down 6 per cent compared to the 1970s, but still comparatively larger (71%) than male representation as expected. Analyses of variance by activity category showed that exercise increased by 8 per cent and, at the same time, work-related activities decreased by 14 per cent. Shopping, eating and relaxing categories were not significantly differentiated. The low work-related score accounted directly for an 8 per cent decrease in the category work-setting. These differences in content photography may indicate indifference within the literature.

Pictorial Study IV – Woman's Weekly & Woman's Own Combined 2006 – 1973-78:

Percentages have also been collectively inputted for each of the magazines. Present day magazines have shown a moderate decrease of 4 per cent for female representation. Differences in activity categories noted a higher percentage for relaxation and exercise at 7 and 9 per cent respectively, whereas work-related accounted a 15 per cent decrease. These findings in turn influenced the 7 per cent direct drop in the category work-setting and comparatively accounted for the 7 per cent increase in the social-setting category. In general, the statistics indicate some convergence as expected but for most purposes, are significantly differentiated.

Overall, the results from the pictorial analysis of differentiation between the athletic publications and representative publications read by women are significant. But what is the likelihood of influence over female audience? Why is it important to interpret the meaning of the discovered patterns? What does this suggest about women's role in athletics – and possibly in society in general? And, what bearing does this have on *any* differing connotations of androgyny for females and moreover, female athletes? Clearly, many questions remain to be answered.

DISCUSSION

Study three was effectively designed to confirm, modify or contradict the textual findings. More specifically it was designed to determine whether gender relations in athletics are reproduced in media pictures; whether female athletes are pictorially underrepresented; and to establish the extent to which sportswomen have been trivialised/marginalised by sexual objectification. It was further predicted that women in *weekly* magazines (by way of comparison and contrast) have been portrayed pictorially in terms of their status in the private sphere, thus providing additional evidence of the likely socialisation of femininity. As it turns out, evidence exists to offer confirmation, at least in part, for gender relations being pictorially reproduced, with active photography of female athletes still depicted in the minority (45%). Further evidence exists for women being pictorially underrepresented, with athletic men still occupying an 8 per cent preference. Also evident was some proof that female athletes are subject to sexual objectification (see appendix 1.8). Further, the status awarded women in the *weekly* magazines, appears at least, to be in terms of their position in the private sphere. Women's magazines generally depicted women in less active roles with significant increases in the pastimes of exercise, eating and relaxation, whilst career and unexpectedly the role of domesticity were significantly reduced. Therefore, study three contends that women are influenced by the socio-cultural context and the representations of femininity that are available at the time.

Besides the verbal, Berger (1972) notes the photograph or image often conveys meaning of gender-related cultural stereotypes at a glance. Representing a judgement about what constitutes feminine ideology, images frequently contain an invisible yet implicit society which approves of and defines the feminine ideal. The hidden message here is conflated with the symbolic cultural message, so that it appears to be a reliable portrayal of reality. Is it possible that *Athletics Weekly* illustrates gender relations of women athletes? In other words, it communicates a set of beliefs and practices which reinforce the division of the sexes and more importantly preserve the belief that athletics is somehow masculine. In this study, using the SPAMS acronym, statistics show that for the activity percentile, 55 per cent of sportsmen compared to 45 per cent of sportswomen were mostly shown in active poses. Thus, a larger proportion of the

photographs of sportsmen than sportswomen were shots of them performing in their event. In the same way as textual analysis belittles female athletes by conjoining statements of female strength with statements of female weakness (see study two), the positive increase in female portrayal was undermined by the visual implication that women were decorative objects, unsuited to any endeavour as active and demanding as athletics. This form of symbolic indifference ensures that any emphasis on the sportswoman's performance is diminished by this traditional acknowledgement – as secondary to 'sportsman'.

But there is another side to the story; sportswomen today have been granted a much higher activity percentile than in the 1970s. Statistically speaking, female athletes today have 45 per cent coverage in an active pose whereas in the 1970s this figure was closer to 8 per cent coverage. This suggestion clearly illustrates the athletic focus towards a more equitable balance of gender relations in athletics. But until a point where *Athletics Weekly* and presumably athletic coverage in general redresses these inequalities totally, a highly ambivalent portrayal of sportswomen will exist.

The equality discourse was also echoed via sportswomen's representation in the featured athletic publication *Athletics Weekly*. Despite a marked improvement since the 1970s (where female representation accounted for 12 per cent) fewer photographs of sportswomen were taken. As with the element of activity, the majority of photographs were of sportsmen (54%), whereas in contrast sportswomen occupied 46 per cent of the photographs. Although printed nearly ten years apart, these data resonate with unnerving likeness to Graham, et al., (1997) findings that fewer women and girls than men and boys were represented in almost all the print media reviewed, with 45 per cent of the characters female and 55 per cent, male. The combined effect of this and Graham, et al., (1997) studies provide all concerned about athletic femininity with a clear agenda: give sportswomen an unequivocal message that they are valued for who they are, what they do, and who they want to become. Athletic femininity seemingly is not one of them. These findings illustrate the continuing significance of the print media and its role in the (re)production of gendered power relations.

By the same token is it conceivable that *Athletics Weekly* communicates an acceptance of objectification? As Duncan (1990) found the photographs of female athletes bore striking resemblance to those of women in soft-core pornography by highlighting their hips, thighs, buttocks, breasts and crotches and by showing female athletes with facial expressions that signify sexual invitation. Ussher (1997) too claims woman is seen not as a whole but represented as breasts or legs or face or other body parts. As Gledhill (1992) puts it: The image is designed to flatter or stimulate the male ego. In short, 'ways of seeing' (Berger, 1972) are predominantly male. Not surprisingly then, this fragmentation of 'woman' is consistent with images found in this study where photographs of sportswomen were reduced to manageable sexual parts for presumably the male audience's gaze and pleasure (see appendix 1.8). It seems the essential way of seeing sportswomen, the essential use to which their images are put, has not changed. Sportswomen are depicted in quite a different way from sportsmen - not because the feminine athlete is different from the masculine - but because the 'ideal' spectator is always assumed to be male and the image of the sportswoman is designed to flatter him. Objectification changes how sportswomen are treated, and it devalues and degrades the athletic arena. Female athletes may feel they must live up to this objectification to be seen as valuable. By contrast, males view sportswomen as objects to be used or gazed upon, rather than as sportspersons to interact with (Weiss and Fiske, 2009).

Paradoxically, Bartky (1990) and Bordo (1989) argue that in a similar way, women now have become the observers and monitors of their own femininity by turning the panoptic gaze, the photographic lens upon themselves. In other words, the photographs are fashioned for the female reader if not exactly by the female reader (BBC News, 2006). Bartky (1990) and Bordo (1989) argue that it is really contradictory, because disguised as athleticism, women buy into the much objectified culture they have for years pleaded and campaigned (Hargreaves, 1994), against. If one fails to realise this sense of contradiction, then one has only oneself to blame (Duncan, 1994). These 'ways of seeing', then, are selective frames that colour both our perceptions of ideal femininity and what is to follow in the print media.

It is not just *Athletic Weekly* which portrays the socio-cultural femininity of sportswomen to us. A study of images in British magazines (*Woman's Weekly* and *Woman's Own*) also found evidence of the socio-culturalisation of women. In the preface of her 1963 book *The Feminine Mystique*, Betty Freidan wrote: "There was a strange discrepancy between the reality of our lives as women and the image to which we were trying to conform". Although the vast majority of women's lives have changed beyond Freidan's greatest hopes since she wrote those words, the disparity between the media's view of women and women's real lives is still in some ways present. In the images of *Woman's Weekly* and *Woman's Own* magazines this study found a move away from the traditional spheres of domesticity toward a more relaxed, self-conscious, self-objectifying social entity. An entity Allen (2002) thinks is obsessed with its scrutiny of 'self', and its preoccupation with the construction and maintenance of the 'correct' appearance. Further the endless pictorial galleries of magazines (see appendix 1.8) Allen (2002) claims, allow woman to avoid the hard character work by making their bodies into copies of the icons of success. Reading between the lines, the images reveals a not-so-subtle message: Women are not acceptable the way they are. The only way they can become acceptable is to conform to the socio-cultural context of femininity at that time. One way this was seen between the magazines was in the focus on their version of the same message, this being: if you are female, know that you will be judged based on what you look like; expect to be objectified; and hope to receive external validation from others about your image, which will give you self-worth.

The idea that if you are a woman you need to be beautiful to be successful, is not a new one. All that has changed over the last three decades is that this propaganda has become acceptable in publications aimed at contemporary women. But, unlike thirty years ago, few are publicly challenging this - and especially not women themselves. As Margolis (2007) claims, no longer can we merely point an accusatory finger solely at men for the position women currently find themselves in: women are choosing to maintain their own oppression by buying in, quite literally, to it. Every time a woman purchases one of these magazines, she is helping to undermine another woman. By parting with their money for the publications that reinforce this theme, they are

contributing to women's oppression everywhere. If women choose to support this misogyny while competing with one another to be the most beautiful, or obtain the better man, or make more money through using their bodies as a commodity, the chance for there to be a more equalitarian society is diminished. The consensus is that the woman's image is constructed to convey particular messages which the producer intends to make available to the public sphere.

In these respects, Ferguson (1983) and more recently Gauntlett (2002) argue such publications are operating very differently from specialists' magazines for men. There is no men's periodical press in the same generic sense as there is for women. Men's magazines are aimed at particular groups of males and cater for parts of a man's life – his business, hobbies or sporting interests – not for the totality of his masculinity, nor his male role as such (Ferguson, 1983; Gauntlett, 2002). Gauntlett (2002) claims this difference in audience approach seems to rest on an implicit assumption shared between editors and publishers that a female sex which is at best unconfident, and at worst incompetent, 'needs' or 'wants' to be instructed, coached or brought up-to-date on the arts and skills of femininity, while a more powerful and confident male sex already 'knows' everything there is to know about the business of being masculine.

It can thus be argued that gender relations in athletics are not only reproduced in the pictorial media but influenced by the woman's socio-cultural context. Sometimes this does not give the woman complete freedom to choose the position(s) she would prefer. In the case of athletics, the socio-cultural context is one where the sportswoman's femininity is underrepresented and trivialised/marginalised by sexual objectification. It is one where images of sportswomen are sexualised for the masculine gaze. In women's magazines also 'doing femininity' is judged by the socio-cultural context and representations of femininity that are available at that time. But let us not forget women are seemingly as much to blame as men in both accommodating and resisting her. Once fixed by the photographic pages, identity is, thus, open to public surveillance. Study three contends therefore that media pictures socialise sportswomen and women to internalise an objectifying observer's perspective of their femininity. This occurs through the greater sexual objectification of women

than men and has the effect of self-objectification where the woman learns to view her femininity from the perspective of the social norm. Pictures within athletic periodicals and weekly magazines are usually distortions rather than truths, but they also serve to determine woman's idea of her femininity.

How then have these patterns of asymmetry and exclusion perpetuated the differing connotations of androgyny for male and female athletes? Moreover, what do all these studies about the presence of androgyny, its origins, influences and consequences actually indicate? All-in-all, a simple analysis of if, how and why these athletes recognise the value of androgyny is required at this point.

CHAPTER 8 – PSYCHOLOGICAL ANDROGYNY:

THE CONTRIBUTIONS OF ANDROGYNY

STUDY FOUR

Although the methodological approach of using questionnaires in the first study provided an efficient way of collecting responses from the participants of interest it did so in a predetermined order with little room for elaboration (DeVaus, 2000; Robson, 2002). Next, a content analysis whereby verbal and other symbolic material emanating from a society's or a culture's background could be interpreted inasmuch as the literature permitted. But as Hermes (1995) contends it simply is not possible to read profoundly into the social constructions of an audience from the surface of text: there is no single text that has the required monopoly position to exert such insight. Hermes' (1995) perspective, therefore, is that text on its own is never enough to reconstruct these social themes. To facilitate subsequent discussion, an interview may be used to explore and explain the theme's that have emerged (Kerlinger, 1970; Wass and Wells, 1994). In this synthesis, Wass and Wells (1994) make the point that interviews, (presumably semi-structured or in-depth) may also be used as a means to validate findings from the use of any initial methodological approach. As Jones (1985:46) puts it: "in order to understand other persons' constructions of reality, we would do well to ask them. And, to ask them in such a way that they can tell us in their terms (rather than those imposed rigidly and *a priori* by ourselves) and in a depth which addresses the rich context that is the substance of their meaning". Their object, therefore, is to identify with the central themes and lend insight into developing patterns rather than to determine the frequency (Lofland, 1971). In effect, interviews are valuable as strategies for discovery when the sample is potentially small and the data obligatory for exploratory and/or explanatory purposes.

Hypotheses:

Study four therefore used three hypotheses all informed to some extent by feminist thought.

- I. Athleticism is viewed as an arena for cultural resistance and identity for sportswomen.

- II. That female athletes may experience gender role conflict because they are trying to be both 'feminine' and fill the role of an 'athlete'.
- III. That the adequacy of gender-typing athletes in sport participation may be misleading in our understanding and in the development of women in athletics.

Study four therefore was an extension of studies two and three, which examined the tentative theory (TT₂) that the demands of athletics and social coercion will result in the differing connotations of androgyny for male and female athletes.

PARTICIPANTS

The subjects for study four were past and current athletes as identified in study one parts (a) and (b). It was argued that, by the very fact of maintaining research consistency, these athletes must meet the criteria of with the basic principles outlined in selecting the participants of interest in study one parts (a) and (b). Therefore, the proviso requested athletes under study to be presently, or have been in the 1970s successful British club affiliated 100 and/or 200 metre-sprint athletes. This definition offers a further advantage: it enables study four to focus on athletes who occupy a similar hierarchical level (as identified in study one) in a competitive environment, thereby diminishing the adverse influence of intervening variables if different levels, eras or disciplines were being studied. In doing so, this study remained consistent with the objective criteria for successful athletes previously outlined, whilst this advanced the study's tentative theory that the demands of athletics and social coercion will result in differing connotations of androgyny for male and female athletes (TT2).

SAMPLE SIZE AND APPROACH

The issue of sampling emerges at different points in the research process (Flick, 1998). In an interview context, it is connected to the decision about which people to interview (case sampling) and from which groups they should come (sampling group of cases). As each respondent in study one part (a) and (b) during the completion of the questionnaire was invited to voluntarily provide additional commentary at interview, the sampling strategy employed in study four is best described as '*self-selection*'. In such instances, as Saunders, et al, (2003) point out, 'self-selection' sampling occurs when the researcher allows a case, usually an individual, to identify their desire to take part in the research. What is decisive in 'self-selection' sampling, are cases (respondents) that self-select often do so because of their feelings or opinions about the topic under investigation (Saunders, et al, 2003). In this way, it is possible to probe an issue in depth. Of course, 'self-selection' in this case, has the added advantage of the respondents already having to undergo *representative* sampling strategies in order to satisfy the sample conditions for the completion of questionnaires in the study earlier. Therefore in effect, the self-nominated individual has already been subjected to a rigorous selection process.

Consistent with the sampling conditions outlined, twenty-two past and present athletes expressed an interest in taking part in an interview. Consistent the sampling strategy used previously in this study a 'matched subject's related design' as proposed by Roberts, (2000) where the minimum number of the smaller strata (male or female) of each era was used as the sample representation.

INTERVIEW THEMES

Once the preliminary issue of question format has been solved, there follows the preparation of the interview schedule itself. This involves translating the study objectives into the questions that will make up the main body of the schedule (Cohen and Manion, 1994). It is quite usual to begin this process by formulating a set of themes that reflect the variables to be dealt with in the study (Cohen and Manion, 1994; Saunders, et al, 2003). As Tuckman (1972:284) explains, “the first step in constructing interview questions is to *specify your variables by name*. Your variables are what you are trying to measure. They tell you where to begin”. Saunders et al, (2003), inform us that interview variables may be derived from the literature cited, the theories considered, preliminary responses from participants or some combination of these approaches.

Having given thought to this advice, the central theme of the interview was psychological androgyny, that is, as a measure of the relative importance granted to personal fulfilment and, both present and ex-athletes’ perceptions of the concept in focus. Close attention was also given to perceptions concerning feminist ideology and social coercion with the view to conclusively *support* (TT2) or *falsify* (EE) the problem (P2). These themes were kept in focus as they served to drive the construction of the questions. The aim was to allow the athletes to talk as freely as possible, with only the necessary interventions offered by the interviewer. Therefore, in the construction of the questions, brevity was aimed for, with a number of issues to be clarified. All the interview questions in this chapter are informed by the hypotheses:

H(i) Athleticism is viewed as an arena for cultural resistance and identity for sportswomen.

Q1. Why did you become an athlete?

To elicit the reasoning behind the athlete being an athlete. This may allow the athlete to evidence cultural expectations.

Q2. In what way is being an athlete rewarding?

To establish whether the benefits that the athlete can accrue from being an athlete are identifiably gender specific.

Q3. What are the key attributes of a successful athlete?

Opportunity to elicit athletes own perceptions of what attributes an athlete should be able to identify with.

H(ii) That female athletes may experience gender role conflict because they are trying to be both 'feminine' and fill the role of an 'athlete'.

Q4. Do you feel your role as an athlete is conflicting? (e.g., professional/ home-life)

To investigate whether female athletes claim their identities as feminine and athletic were not (in)compatible.

Q5. How demanding is the role of an athlete?

Designed simply to elicit whether athletes associate athleticism with cultural stereotypes of masculinity and not femininity.

H(iii) That the adequacy of gender-typing athletes in sport participation may be misleading in our understanding and in the development of women in athletics.

Q6. What do you understand by the term personal-fulfilment?

To identify whether athletes are able to recognise and understand the psychological blending of gender traits.

Q7. In what way does being an athlete offer personal-fulfilment?

To find out if athletes acknowledge the restrictions of gender-typing and whether they are sensitive to both masculine and feminine cues.

Q8. As you see it, is personal-fulfilment achieved differently by males and females?

To establish if athletes increasingly view athleticism according to the convergence of gender characteristics.

The use of these open-ended questions in the semi-structured interviews (please see appendix 1.9 for discussion on interview validity and reliability) assisted gathering of information relevant to attitudes, behaviour, personalities and society. Questions were

framed around specific themes – such as an athlete’s self-concept or societal coercion – and designed to focus interviewee thoughts, but not so much as to exclude illuminating digressions. Questions were asked to discover not only how athletes define their role and function, but also which psychological, social, athletic and personality factors influence their athletic existence and success. Finally, these questions are presented here in congruence with the desire to offer *analytical generalisations* for this research. In this vein, Kennedy (1979) and Chenail (1995), assert that there should be a spirit of openness in the presentation of qualitative research to make generalisations possible. Once again this research claims for *procedural objectivity*.

INTERVIEW ANALYSIS TECHNIQUE

For the analyses of the interview scripts, the 'meaning condensation technique' was employed. This phenomenologically grounded technique aims to deal "systematically with data that remain expressed in terms of ordinary language" (Giorgi, 1975:95); it aims to create a condensation of the expressed narrative into a more essential meaning. The 'narrative' derives its label from the Latin word 'narrare' which means to tell, or report. The narrative is classified among the qualitative research methods (Lamnek, 1989; Flick et al, 1991), to be considered a form of semi-structured, in-depth interview with specific features. Meaning condensation entails an abridgement of the meaning expressed by the interviewees into shorter formulations. Long statements are compressed into briefer statements in which the main sense of what is being said is rephrased in a few words. Meaning condensation thus involves a reduction of large interview texts into briefer more succinct formulations (Kvale, 1996).

As the thematic purpose of the interviews was to elicit perceived athletic behaviour and to examine the demands of the role, as well as the required attributes of a successful athlete, meaning condensation seemed the most appropriate method. Such an approach involves four steps (after Kvale, 1996): Firstly, the entire interviews are read through to get a sense of the whole. Secondly, the narrative responses as expressed by the respondents are separated in the transcript 'indexical' from 'generalised' statements by a select panel. The select panel comprised of eight participants of an adult education group studying at the University College Birmingham. The participants (4M, 4F; ages 22 to 46 yrs.) from various communities were recruited through word-of-mouth, and their availability. Participants of the panel were next informed that the narrative responses required progressive reduction by serial paraphrasing into summary paragraphs or statements chunks. These *chunks* or paragraphs were then further paraphrased into a few key words. All reductions were to be completed individually. Thirdly, the theme that dominates the narrative response is stated as simply as possible – with the statements being thematised, again as interpreted by the select panel. Fourthly, these thematised statements are tied together into a descriptive statement of essence and integrated into the study. By way of example the following is offered:

Figure 1.8 MEANING CONDENSATION TECHNIQUE

<div><div>STAGE 1 – The narrative response</div><div><div>Q5. Do you feel your role as an athlete is conflicting? (e.g., professional/home-life)</div><div>Yes! (<i>In what way</i>)? In many ways, it became not an obsession but it superseded education. <i>Ammm</i> ideally when you look at others like Roger Bannister, he broke the four-minute mile, won the Commonwealth Games and retired to be a doctor. Athletics was just a stepping stone in his career structure. With me it became, in some ways an obsession, even though my career finished in my thirties, when I was thirty but I then moved from that into administration, into coaching and then into administration. (<i>OK, then do you think it fuelled your career, not dissimilar to Roger Banister but in a different direction</i>)? I was very fortunate that's whilst I ran a large local government office, as senior officer that gave me stability, that gave me the ability also to go and train <i>abhh</i> 5 o'clock at night till 7, go home. I would have <i>abhh</i> regular meals, I'd then go back to work, and I had the stability of the work plus reasonable income ...I still was able to be an athlete. <i>Ammm</i> that helped enormously, the great difficult comes when <i>ammm</i> it clashes between education, employment and your sporting activities. Trying to ensure to have a balance was very difficult, but whilst I was very good administrator and was qualified in administration, my athletic career opened up a door in recreation management (<i>so you would say despite that it was conflicting it still provided opportunities</i>)? Oh, yes, oh, yes, and that's were when I became a sports centre manager I was then able to see my direction where I was going and then take other qualifications because my physical career was declining. Quite strongly. Then I took my teaching qualifications and <i>abhh</i> moved on in that respect but at the same time still remaining in athletics as a coach/administrator, but not active in athletics but active as an athlete (<i>an athletes administrator</i>)? Yeah, yeah.</div></div><div><div>Interviewer <i>Italics</i> in brackets.</div><div>Other <i>Italics</i> are breath and thought pauses.</div></div></div>	
<div><div>STAGE 2(A) Separation</div><div><div>Indexical (concrete reference)</div><div><ul style="list-style-type: none">• Yes! It became not an obsession but it superseded education. Roger Bannister, athletics was just a stepping stone in his career structure. With me it became, in some ways an obsession.• I was very fortunate whilst I ran a large local government office, as senior officer that gave me stability that gave me the ability also to go and train. I'd then go back</div></div></div>	<div><div>Generalised (beyond the mere events)</div><div><ul style="list-style-type: none">• Even though my career finished in my thirties, when I was thirty but I then moved from that into administration, into coaching and then into administration.• That gave me the ability also to go and train <i>abhh</i> 5 o'clock at night till 7, go home. I would have <i>abhh</i> regular meals.• My athletic career opened up a door in</div></div>

<p>to work, and I had the stability of the work plus reasonable income ...I still was able to be an athlete. That helped enormously.</p> <ul style="list-style-type: none"> • The great difficult comes when it clashes between education, employment and your sporting activities. Trying to ensure to have a balance was very difficult. 	<p>recreation management ...yes, and that's when I became a sports centre manager I was then able to see my direction where I was going and then take other qualifications because my physical career was declining.</p>
<p>STAGE 2(B) Serial paraphrasing</p> <ul style="list-style-type: none"> • (1)Athletics became to some extent at least an obsessive behaviour where the athlete sacrificed education presumably among other things to pursue his career. (2)Draws upon Roger Bannister as an example where athletics was a 'stepping stone' (not to belittle his athletic achievements) in his career aspirations and development. • (3)The athlete highlights the fortuity to secure a high paying and senior position that allowed continuation in the pursuit of an athletic career. (4)The job gave the athlete the flexibility to train and replenish food loss between 5 and 7pm before returning to work. • (5)Emphasises the extraordinary difficulty of pursuing athletics and maintain a balance when it clashes with the social norms of work, education and other sporting interests. • (6)Athlete identifies declining of career at the tender age of thirty - presumably due to social pressures imbalance with the athlete's athletic career – but revels in the knowledge that it was athletics that paved an alternative career in recreation management. 	
<p>STAGE 2 (C) Further paraphrasing into key words</p> <p>(1) Obsession; sacrifice; career. (2) Stepping stone; career aspirations. (3) Senior position; continuation; athletic career. (4) Flexibility. (5) Difficulty; balance; clashes; social norms. (6) Declining; social pressures; imbalance; alternative career.</p>	
<p>STAGE 3 Central statement</p> <p>An athlete's role may not be conflicting or obsessive if the athlete identifies the challenge with flexibility and as an extension of everyday behaviour. Although balancing athleticism with career and other commitments can be difficult – the prime concern is the element of balance that the execution of the role entails.</p>	
<p>STAGE 4 Conjoining of central statements</p> <p>This stage involves the bringing together of <i>all</i> central statements to <i>all</i> narrative response.</p>	

Personal Model adopted from Kvale (1996)

Throughout, this thesis has striven to display consistency in approach and design. What may seem to hinder such consistency is the 'exactness' used in locating and defining the 'athletic' concept and this study's relatively 'inexact' acceptance of whatever the athletes' say as being the 'true' and 'correct' description. As was noted, the interview questions were constructed so as to facilitate a free and comfortable interview situation for the athletes. It was wished to allow them to speak with confidence. But, this then precludes a more in-depth examination of the accuracy of their claims and descriptions of their athletic behaviour. This does not remove the validity of the interviews however, but it does require that any inspection of the interview outcomes be accompanied by the fact that these are the athletes' claims: whether or not they actually 'practice' what they say they do will require further verification studies. Further criticism could be imposed upon the use of a select panel to determine the narrative responses, as this could be construed to accentuate the problem of a 'true' and 'correct' description. Even so the select panel procedure was preferred for its technical competences in the sense that the units of the study were designed to validate each other. They give data on the same narrative responses, so the relationship between them must be one of confirmation or contradiction. These are matters of analytical interpretation which need to be worked out and understood afresh each time.

These interviews, then, strive for procedural objectivity and are to be analysed with the application of the phenomenological technique of '*meaning condensation*' so as to extract the essential meaning of the narratives as offered by the respondents.

PROCEDURE FOR INTERVIEW ADMINISTRATION

Consistent with the sampling conditions outlined, each athlete, both past and present, was, during the questionnaire, invited to voluntarily devote time to being interviewed. Of the ninety respondents who were participants in the first study, twenty-two expressed an interest that they would be willing to take part in an interview. From this sample, fourteen were present athletes and the remaining eight were ex-athletes. In order to maintain consistency with the procedure adopted in the questionnaire a *matched subject's related design* (Roberts, 2000) sample was favoured. In other words, the disproportionate level of male and female respondents meant, that for meaningful comparison, the minimum number requirement of the smaller strata must be reflected in that of the larger strata. But, unlike the questionnaire of study one, here we face a dilemma. The unified format of study four has codified two sub-groups of the population. Does one assume a *matched subject related design* for both sub-groups as previously for the questionnaire? Or is this procedure non-applicable? Although there appears to be no clear-cut answer, in such instances it is better to err on the side of caution (Dillman, 2000). To this end, both sub-groups had a *matched* sample.

A second question, as crucial as the first, is how to decide the number of respondents to interview? This study is only intended to supplement the quantitative data and not stand on its own therefore would a relatively small sample may suffice? Yet another dilemma, seemingly without a definite answer. However, it is possible to give some advice on this matter. Blanche, et al., (2008) offer advice on the decision about 'how many interviews is enough.' When planning to conduct shorter, semi-structured interviews on, for example, behaviours, experience has shown according to Blanche, et al., (2008) and others (e.g., McGarry and Culjak, 2008) that ten to twelve sources will often suffice but this is largely determined by constraints imposed upon the researcher. There are certainly no hard-and-fast rules, and decisions about the number of interviews depend in part on how much detail one is likely to gather in each case (Blanche, et al., 2008). Schneider (2005), for example, used three-to-four interviews with respondents in each of four subgroups of interest, to contribute to an understanding of treatment of ARI in children. Schneider (2005) defended the decision on the basis of those selected for interviews were people well informed about

the issue. In line with this rationale, a sample of three male and three female ex-athletes and three male and three female current athletes were finally selected. The sample encompassed nine athletics clubs from six of the forty-seven regions (see: www.british-athletics.co.uk).

The interview focus – reflective of that in the preceding three studies – was concerned with psychological androgyny and an athlete's perception of the concept in appropriating success. The final twelve individuals were contacted in advance of the interview to establish the most suitable time, date and location. At this time each of the respondents were informed of the approximate length and requirements of the interview, and all were informed that the exchange would be confidential.

PILOT SAMPLE

Piloting interview schedules is intended to identify and eliminate errors made by interviewers or respondents. In response, to this, research piloted an interview with a sample of some of the athletes from University College Birmingham AC who were previously piloted with the questionnaire. Dr. Andrew Roberts carefully observed and recorded the pilot interview procedure which provided invaluable insights for altering question wording, probing questions about issues which were of particular concern to research, omitting or changing questions, and altering the order of questions to provide a more logical flow. For example, it was felt questions four and five could be construed as similar and therefore a purposeful but distinguishable prompt (i.e. *Professional/home life*) was necessarily incorporated. The question or the questions' sequence was also altered in order to create a more rounded synthesis. Question eight was rephrased to provide a more considered opinion rather than necessarily opinionated.

The interview schedule was then re-piloted with four athletes (one male and one female contemporary athlete and two male ex-athletes) from Bromsgrove Olympic Running Club (a Club with a wealth of experience and athletic tradition). Such preliminary research was particularly helpful in noting not only the literal statements but also non-verbal and paralinguistic communication. This gradual process of interview development made easier the standardisation of the verbal, non-verbal and body language interaction between interviewer and interviewee. This gave rise to emphasis upon objectivity. In effect the pilot interview endorsed Bell's (1999) advice, 'a trial run ensures your interview will succeed'.

INTERVIEW NARRATIVES AND INTERPRETATION

The narrative responses as interpreted by the select panel and presented here provide arguments as to whether the demands of athletics and social coercion result in differing connotations of androgyny for male and female athletes (TT2). Participants were 12 successful athletes ($n = 6M, 6F$; ages 18 to 62 yrs, $M = 37.92$) from 9 clubs representing 6 regions. Athlete *M62CT*¹¹ previously competed at local, regional, national and international level. Presently still competes at local and special invite events. Athlete *F51AW* competed competitively at local, regional, national and international events during the 1970s. Today still competes as a veteran but at local and special events only. Athlete *f28EG* competes at local, regional and national level to-date. Athlete *F50EC* competed at local, regional and national levels. Of late has changed disciplines to middle and long distances. Athlete *m21JE* represents at local, regional, national and international competition. Athlete *M52JS* competed at local, regional, national and international level. Still competes today, but 'moderately'. Athlete *f23JC* competes at local, regional and national level to-date. Athlete *f22JF* presently competes at local, regional, and national level. Pushing for international place in forthcoming European Cup. Athlete *m19JH* represents at local, regional, national and international competition. Athlete *F52KB* previously represented Great Britain at the Commonwealth Games, World Indoor and Outdoor Championships and numerous international meets. Presently represents local athletics club at veteran's competition level. Athlete *m18LC* competes at local, regional, national and international events. Athlete *M57NP* former athlete and British Athletics coach. Competed at local, regional, national and international level. Left arm amputee since 4 years old.

Athleticism discerned:

To the question 'why did you become an athlete?' Athlete *m/18/LC* replied:

"My mum actually gave me fifty pounds to start running."

Athlete *m/19/JH* suggested:

¹¹ *M* and *F* refer to the gender of each ex-athlete, whereas *m* and *f* refer to the gender of each present athlete. Note the case denotation. The number (e.g. 62) represents the age of the athlete. The cryptic (e.g. CT) represents the athlete code.

“Mainly down to my Dad and my brother like *ammm* my Dad was obviously successful and went to the Olympics and basically all he use to do was running”

Athlete *f/28/EG* also indicated:

“I think it was my dad’s influence, ‘cause when I was growing up my dad was into running, I got two older brothers that are into running and I just wanted to be part of it as well, and go out training with my dad.”

Whilst Athlete *f/22/JF* responded:

“I think it was one of my teachers at school that got me into it.”

The general attitude which these and other accounts (Haywood, et al, 1995) suggests one of guardian influence. That is, it seems parental and academic role models encourage progeny (male and female) into athletics irrespective of gender. There appears little evidence of the traditional folly where athleticism has been regarded by many (see: Dunning, 1986; Griffin, 1991; Lorber, 1993; Women’s Sports Foundation, 1995) as an instrument of social prejudice and hegemony.

Nonetheless it is noticeable that these accounts are taken from current athletes only, what of the ex-athletes, could they have different reasons for becoming an athlete?

Athlete *F/51/AW* mentioned:

“I use to be a swimmer so and *ammm* that’s quiet a while now, I wanted to run just as a challenge to myself.”

Athlete *M/62/CT* noted:

“I found when I was at school that I was better than some of the other boys, I could run faster.”

Finally, athlete *M/57/NP* replied:

“Maybe it was a challenge, and all sports have become a challenge at the various levels that I have played at.”

From the extracts an obvious and somewhat apparent sense of competitiveness comes across. It seems ex-athletes had a point to prove either to themselves or the world around them. Perhaps the move for equality witnessed in the seventies (Hargreaves, 1994) understandably challenged the male preserve (Griffin, 1991; Women's Sports Foundation, 1995) whilst it offered encouragement and reassurance to the sportswoman (Kane, 1995). Either way, a noticeable difference between the encouraged athlete of today and the personal intent of the ex-athlete exists. It is possible that cultural expectations have a bearing after all.

To question 2 'in what way is being an athlete rewarding', athlete *M/62/CT* replied:

"Yes it's rewarding. I suppose when I get the medals, when I get some of the achievement there's the status associated with it."

Athlete *F/51/AW* mentioned:

"I like the feeling of being fit, I do like the challenge, I do like the challenge of going out and competing."

Athlete *F/50/EC* said:

"Definitely a sense of achievement, always want to improve on my times and improve my races."

Athlete *m/18/LC* also stated:

"It's a sense of achievement really like you know the hard work you put at the end of the day, you know you'll get something good out of it in races."

This sense of achievement was further supported by athlete *f/22/JF* who said:

"Rewarding 'cause you feel yeah I've achieved something there."

Three relatively stable responses have emerged. First, the extrinsic rewards and sense of status that is associated. Second, the intrinsic element of challenge versus the external competitor or environment. Last but not least the sense of achievement, the

intrinsic reward. Interestingly though it does not appear likely that these are identifiably gender specific.

To the question 'what are the key attributes of a successful athlete?' Several athletes (male and female) views collated in this study recognised "hard work", "professionalism", "dedication", "focus" and "determination" as attributes of athletic success (of whatever generation), but only one male athlete identified with the "solidarity" factor, whereas the majority of the females do. Such opinion would apparently support a genderised athletic arena. For example, athlete *F/51/AW* said:

"Just talk to a male athlete and it's all about what I've done, what I've done, what I've done, I've done that, I've done that, but a woman will say 'how did you get on today?' You know, they want to know how you get on."

Male athletes seemingly irrespective of era identify with synonyms of '*commitment*' as means to athletic orientation, whereas the female athlete views '*female solidarity*' as a means to an end.

In line with the first hypothesis it does seem, from the results of the present study, that there is some evidence of the cultural resistance and identity which bring about sportswomen's different and largely inferior position in athleticism. The responses would seemingly support a change in motivational tact with today's athlete (of whatever gender) encouraged to partake by guardians (Mums and Dads alike) for the purpose of achievement. Whereas the ex-athlete (irrespective of gender) was taken to mean personal intent expressed in terms of competitive force. The final say for this hypothesis was the observation, by no means original, that women's reasons for participation in athletics are *distinctly* removed from men's. Could this aid in the construction and strengthen ideologies of femininity, masculinity and genderisation and their significance for success in athletics?

Role (in)compatibility:

A related concern surrounds the concept of role (in)compatibility. In common usage, to display femininity and athleticism was to experience role conflict (see: Griffin, 1987;

Hall, 1988; Spence, Deaux, and Helmreich, 1985). To the question 'do you feel your role as an athlete is conflicting (e.g., *professional/home-life*)?' Athlete M/57/NP responded:

"Yes. In many ways, it became *not* an obsession but it superseded education. Ideally when you look at others like Roger Bannister, he broke the four-minute mile, won the Commonwealth Games and retired to be a doctor. Athletics was just a stepping stone in his career structure. With me it became, in some ways an obsession."

Athlete f/23/JC replied:

"I find that my training is a part of my social life because you know you have your friends down the track, and I've made some really good friends through athletics, so it probably combines the two and it doesn't get in the way of my work. *Ammm* don't have many family commitments, so weekends spent competing is fine."

Athlete m/21/JE indicated:

"Without a doubt, I mean if you want to be successful you've got to give up a lot of your time, a lot of the kind of social aspects go down the drain really because if you are going and partying you can't recover properly and then you don't do a session properly, it's a knock-on-effect."

Whereas athlete F/52/KB said:

"I possibly think that women sort of can *ammm* like I've had children and still manage to train and shuffle with work full-time and shuffle everything around. I don't think men; I think men probably get a little bit fazed by things, external factors that happen to them so they can't focus on their training. You know, things will knock them off their training whereas women are a bit more 'cause they're use to juggling everything."

Similarly athlete F/50/EC mentioned:

"I think it makes me more organised that I can fit everything into my daily routine, I think the people I know that run they are all dedicated in their work life as well and quite ...sort of motivated people. Yes, they always want to do their best."

It seems the answer to this question clearly depends on the athletes' gender. The comparative passivity of the females among the athletes interviewed - and the equally astonishing uneasiness of the males among the athletes - leads to the conclusion that the traditional role incompatibility view of gender roles has limited application. In order to participate successfully in athletics, athletes must possess appropriate physical expressions of aggressiveness, achievement motivation, and a high degree of competitiveness which are considered to be masculine (Bem, 1974; Cook, 1985; Dyer, 1982; Rudman and Glick, 2008). Perhaps the key area for potential conflict here is experiencing one of fragility and feminine weakness. Females' engagements in athleticism have long been considered indicators of emotional disturbance or sexual deviation (cf. Blinde and Taub, 1992; Griffin, 1992; Krane, 1997a; Scraton and Flintoff, 2002; Veri, 1999). In light of this consideration, the athletes interviewed addressed the question 'how demanding is the role of an athlete?' Athlete *m/21/JE* responded:

"Physically it's extremely demanding, I mean you need to train up to about - well I do - thirteen units, if you really want to be successful ...mentally, I think it's very, very demanding."

Similarly athlete *F/52/KB* mentioned:

"I think it was probably most demanding at my peak - I was an international athlete for about ten years so I trained twice a day, seven days a week for perhaps about ten years, so obviously very demanding - yeah."

Athlete *f/28/EG* also felt the role demanding:

"Yeah it is quite demanding both sub-consciously and physically".

Does the fact that athleticism is seen as demanding, which is understood to conform to an image of masculinity (Lorber, 1993; Messner, 1992), in any sense provide a moral reason for women not to engage in it, or to engage in it differently or separately from men? Insofar as all athleticism which is considered masculine seems capable of being performed in a nonmasculine way (cf. Hargreaves, 1994; Matthews, 2002; Ward and Whipp, 1990) - it seems relatively clear the answer is no.

Analysis for the second hypothesis does seem more inclined to overturn the traditional role of incompatibility, or at least stress the psychological capability of the female athlete to survive in a highly competitive environment.

Evidence of convergence:

This convergence of gender characteristics - androgyny - is an attractive ideal. It is an attempt to combine the virtues of each gender - not for women to be 'masculinised' or men to be 'feminised' but for both to be humanised and enriched. So when the athletes were asked 'what do you understand by the term personal fulfilment?' and question 7 'in what way does being an athlete offer personal fulfilment?' Athlete *M/62/CT* replied:

"Oh! Getting enjoyment - I think yeah, getting enjoyment out of doing something."

Interestingly to question 7 he replied:

"There's a certain togetherness about it. It offers me that enjoyment and [*I'm*] fulfilled by it."

Athlete *f/22/JF* said:

"I think it means you fulfil your full potential."

To question 7 she indicated:

"It gives you an opportunity to challenge yourself a bit more."

Meanwhile to question 6 athlete *m/18/LC* replied:

"I'd probably say that's how you perceive yourself."

To question 7 he said:

I'd probably say running helps me to fulfil myself really, 'cause I enjoy it a lot so I get a lot of satisfaction out of coming training, so it's just generally being happy I suppose."

Athlete M/52/JS suggested:

"It's about your measure of what you get out of something."

To question 7 he responded:

"It's a sense of freedom. I think it strengthens you mentally, *ammm* it strengthens you, it toughens you, you know you can do things, you can achieve things."

Finally athlete F/52/KB mentioned:

"Fulfilling your own goals and ambitious."

And, her response to question 7 was:

"You set your stall out what you want to achieve ...I wanted to go to the Commonwealth Games and I achieved that so for me that was achievement."

To athletes (of whatever generation or gender) personal-fulfilment looks as if unanimously to convey a sense of 'autonomy', with athletics offering the means in which to express themselves. This appears congruent with Duquin's (1968:98) sporting ideal: "the participant feels a sense of fulfilment when participating, as well as when winning. [*The athlete*] feels joy, strength, thrill, competence and control during sporting whether in practice or competition. [*The athlete*] performs ethically, drawing [*his/her*] ethics from [*his/her*] own self-conscience. [*The athlete*] performs with confidence and comradeship." Notice, however, that the function of athleticism to which the athletes are here drawing our attention, is not merely the formation or reinforcement of gender identity, but rather the relief of a tension generated by the

dissonance between reality and ideology of socially imposed restrictions. There is in other words, little recognition of the masculine attitudinal mode.

To question 8 'as you see it, is personal-fulfilment achieved differently by males and females?', athlete *m/19/JH* responded:

"I don't think it'd be any different for males or females."

Similar responses were received from athletes *M/62/CT*:

"I don't think there is any difference between them." *M/62/CT/TAC*

Athlete *f/22/JE*:

"*Ammm* not really that I've noticed".

Athlete *F/50/EC*:

"I don't think there is a great deal of difference between the sexes."

Athlete *m/21/JE*:

"I think in this day and age it's probably near enough equal."

And finally athlete *m/18/LC*:

"Well I say it was the same, it's an equal sport."

Notwithstanding the apparent impartiality in response, it raises an important question as to the understanding of this acceptance: Is it necessarily an agreed neutral stance, or alternatively an accepted feminine partiality or masculine inclination? Question 8 provided additional insight that revealed some instrumental preferences at least among male athletes. Athlete *m/21/JE* said:

"I would be lying [*if I said*] that I just wanted to do it for my own self-fulfilment really, I mean, I want ...it sounds pretty dull, but I want to be recognised, I want the fame, yeah. I want to be a somebody, you know I don't want to drift through life just being normal, like just being a normal person that people will forget. I want to be remembered and recognised."

Athlete *M/57/NP* mentioned:

“It was nice to be regarded as County Champion, Midland Champion, to run internationally.”

Additionally he expressed:

“Oh yes, oh yes, yeah, the challenge was to be as good as the press said you were. Yeah, it’s nice to read your name in the press but also people say, ‘good race on Saturday ...saw it’.”

Interestingly, even though the female athlete also expressed impartiality to question 8 as seen, evidence revealed an expressive penchant but tainted by the undertones of instrumentality. Athlete *F/50/KB* revealed:

“I enjoy coming down here and meeting the group, all my friends here and the feel good factor, yeah get the adrenaline rush and always want to improve on my times and improve my races.”

Similarly athlete *f/23/JC* made known:

“I think I find most rewarding the social side of it. I’m not one of these people, who go out for a run by themselves, unless I’m doing it to catch up on training as it were. And so, the thing I find most rewarding is the friends that I make through it, but yeah, *ammm* just the competitive side where if you race well then you get a real buzz from it. I mean everyone likes to do well in what they do.”

Whilst athlete *f/28/EG* stated:

“I love racing and doing well in races, it gives me such a buzz but training does as well. If I go out and have a great session, afterwards I just, you know, it’s like being on a high.”

In each of the last three questions, it would seem the third hypothesis has some support. A superior ideal of athleticism which combines instrumental and expressive

attitudes and behaviour to some extent may prevail over the adequacy of gender-typing. Questions 6 and 7 offer encouragement to the psychological androgynous athlete to have best available the desired range of positive behaviours needed to be a successful athlete. Even though this was supported in part by question 8, the far greater implication supports the work of Gilbert, Deutsch, and Strahan, (1978), Jones, Chernovetz, and Hansson, (1978) and Strahan, (1975) who suggest females show a greater preference for adopting aspects of the traditional other-sex role than do males. In particular, feminine interests may appear taboo to men (Lippa and Beauvais, 1983). This tendency is predictable from the masculine supremacy effect hypothesis (Cook, 1985; Stake, et al, 1996; Wong et al, 1985): women have more to gain now from becoming more masculine than men would from femininity, whose benefits are often unseen, underplayed, and devalued by social coercion. In the following section, the outcomes of these results are discussed.

DISCUSSION

Undertaking and interpreting the interview findings from a relatively modest sample of athletes was never going to be easy and unavoidably subject to criticism. For sake of repetition Blanche, Durrheim and Painter (2008); McGarry and Culjak, (2008) and Schneider (2005) suggest there are certainly no hard-and-fast rules, but ten to twelve sources independently or in three-to-four interviews with respondents in each of four subgroups of interest will often suffice. In line with this thinking the twelve interview narratives provide some support for the reliability and validity of the preliminary instalments of methodical approach. Whilst at the same time provides evidence for the study's tentative theory (TT₂) that demands of athleticism and social coercion result in differing connotations of androgyny for male and female athletes.

It emerged here, that athletes, certainly current athletes have far more opportunities to partake in athletics, with both parents and guardians alike inspiring, encouraging and literally bribing (at least in one case) their progeny (*male and female*) into participation. This seems far-off from when females were actively discriminated against for their athletic interest on grounds of biological and medical differences (Hakulinen, 1996; Hargreaves, 1994; Laine, 1989a; 1996), emotional disturbance or sexual deviation (Griffin, 1987; Hall, 1988; Spence, Deaux, and Helmreich, 1985). Perhaps this goes in some way to explaining ex-athletes competitive edge apparently being so blatant. Male ex-athletes rightly felt threatened whilst the female ex-athlete understandably had a point to prove. It is possible the cultural tussle of this period served to contest the limits of emphasised femininity, freeing women to break down the conventional concepts of athletic femininity *and masculinity*? However their liberation was achieved, today's advocates of women's athletics remain acutely aware of the need for solidarity between and among sportswomen. Specifically, sportswomen under interview equated with and displayed female *solidarity* which merely claims that every athlete should be free to enjoy the virtues of involvement whatever they may be. Whereas sportsmen characterised the virtues of *commitment* that treats athleticism as a competitive ideal to which everyone ought to aspire. It is as though athleticism figuratively assimilates an idealised consciousness to a similarly idealised group consciousness for each sex which is somehow reflective of cultural stereotypes (e.g. Dyer, 1982; Griffin, 1967;

Hargreaves, 1994). What assumptions and ideologies are implicit here? Given the evidence sportswomen's experiences are different to men's; in part a reflection of the ways gender is taught and reproduced in our society – making sense of differing connotations of androgyny.

Such results however are limited, since the distinction between male commitment and female solidarity is without rational thought. Properly understood, the two forms are not consistent. It seems unreasonable to suggest that every male athlete ought to compete with the same commitment or every female athlete to exhibit the same degree of solidarity. There is surely room for personal variation and overlap in such matters. Consider the question in what way is being an athlete rewarding? In response, one would expect very distinct responses, yet, the prevailing athletic response (of whatever generation or gender), stressed achievement; considered by many a masculine trait (Bem, 1974; Cook, 1985; Dyer, 1982; Rudman and Glick, 2008). This suggests some greater effect of masculine doctrine for females, as might be expected (Colker and Widom, 1980; DeGregorio and Carver, 1980; Hoppe, 1979; Mills and Bohannon, 1983; Myers and Lips, 1978; Spence and Helmreich, 1978; Williams and Miller, 1983).

It would seem these reliable non-physical differences were consistent with a social system which dichotomised family, work, and social interaction roles along sex-linked lines (cf. Ferguson, 1983; McCracken, 1993; Van Zoonen, 1994). That there are now such roles in our society is not a matter of dispute. The role of childrearer, for example, is overwhelmingly assumed by females (cf. Ferguson, 1983; McCracken, 1993). The role of breadwinner is overwhelmingly assumed by males (cf. Ferguson, 1983; McCracken, 1993). The role of synchronised swimmer is for the most part assumed by females, the role of athlete by males, and so on (Women's Sports Foundation, 1995). The dispute surrounds the alleged role incompatibility at present between the female in society and athleticism. Data from study four contests the *ideal* of role incompatibility, with gender deemed not a mitigating factor. It amounts simply to the claim that we should eliminate a social structure in which behavioural roles are to a large extent divided along sexual lines. It is argued elsewhere (cf. Blinde and Taub, 1992; Griffin, 1992; Krane, 1997a; etc.) that to be a woman and an athlete was often

thought to experience inner conflict about appropriating a male role, but this is questionable. The results of study four suggest that there is no more necessary or essential conflict between femininity and athleticism than there is between masculinity and athleticism (see also: Jackson and Marsh, 1986). Thus the important sociological question is not that a conflict between femininity and athleticism exists, but why it exists only in the realm of the feminine? On the face of it, the lack of conflict between femininity and athlete within any given competitive event raises the question of whether this proposal of sportsmen and women, of what we are and should be as males and females, of the implications of sex for our relationships to one another and for our places in society was too conservative. For the sportswoman, cross-gender identification (and acceptance) may make androgyny more likely.

Given the evidence the study naturally gravitated to gender convergence as an integral feature of athleticism. In general, the athletes likened personal fulfilment to convey a sense of autonomy characterised by enjoyment, self-fulfilment and strength, requiring a release and even relieved, stance to socially imposed sex-roles. Yet, despite the apparent detachment from the sex-role stereotypes athletes tended to frame personal fulfilment in its liking to instrumentality. This is not new. It has commonly been argued (cf. Colker and Widom, 1980; DeGregario and Carver, 1980; Hoppe, 1979; Mills and Bohannon, 1983; Myers and Lips, 1978; Postow, 1980; Spence and Helmreich, 1978; Williams and Miller, 1983), that competitive sports and athletics are primarily suited to instrumentality. Fortunately, however, this in no way implies a feminine antithesis. As Mills and Bohannon, (1983), Myers and Lips, (1978), Williams and Miller, (1983) and others unwillingly report, the fact is, athletes are not exclusively masculine in their characteristics at the expense of femininity but rather with less femininity.

Yet, one must ask the question, of just what these instrumental biases might mean. One inference is that such positive connotations of instrumentality may provide reason, at least for female athletes to win races and turn in performances of which they would not normally be thought capable. The androgyny literature suggests that the process, likelihood, and implications of becoming androgynous may be different for

men and women (Cook, 1985). An outcome seemingly reflective of this research's theory (TT2). For instance, men may be less likely to maintain the feminine stereotype for fear of taboo (Lippa and Beauvais, 1983; Silvern and Ryan, 1983). It is possible, that some of the male athletes, who self-reported as more instrumental, may have been fearful. In contrast, females show a greater preference for adopting aspects of the traditional other-sex (cf. Gilbert, Deutsch, and Strahan, 1978; Jones, Chernovetz, and Hansson, 1978; Strahan, 1975). This is seemingly indifferent to the traditionally held belief of emotional disturbance and sexual deviation as posited by Griffin, (1987), Hall, (1988), and Spence, Deaux, and Helmreich, (1985), amongst others. Yet, it is likely females who self-reported as more instrumental here, could have experienced positive benefits from their performance. The androgynist and feminist may well agree - while adding, of course, women have more to gain now from becoming more masculine than men would from femininity, whose benefits are often unseen, underplayed, and devalued (termed the masculine supremacy effect hypothesis by Cook, 1985; Stake, et al, 1996; Wong et al, 1985). Of course, there is also much to lose - identity, psychological health and even femininity, if traditional parlance is to be believed.

Nonetheless when compared to sex-typing, and getting well beyond the evidence here, androgyny may signify a superior adjustment for women (cf. Block, Von der Lippe and Block, 1973; Deutsch and Gilbert, 1976; Silvern and Ryan, 1979). Heilbrun (1981a) interpreted sex differences in the androgyny literature on self-esteem and adjustment to indicate that androgyny may indicate clear advantages for women. Others (e.g. Burchardt and Serbin, 1982; Hinrichsen, Follansbee, and Ganellen, 1981; Stake, et al, 1996; Stake, 2000; Whitley, 1984) have argued, androgyny for women maybe a desirable imperative. For instance, Rousseau (1963) argued that desirable virtues develop best in a climate of relative freedom and self-determination, and, if androgyny succeeds in enabling some individuals (at least in the case of females) to develop a wider set of virtues then it [androgyny] will, to that extent, have *expanded* their freedom, by increasing the range of situations with which they are equipped to deal. This belief will therefore, "*free* women to enter the competitive arena of significant achievement" (Heilbrun, 1981:64). The point is simply, if women became androgynous while men remain *fearful* of the so-called feminine virtues then other things being equal, female

athletes may present a superior ideal of athleticism, as would appear to be the case here. Thus there is reason, at least for the ideal of androgyny presented as one that applies *primarily* to instrumentality.

From the evidence presented in study four, it seems women's athletic participation has been subject to cultural resistance and social acceptance which bring about women's differential treatment and performances. Many of these have already been mentioned and dismissed as ill-founded and absurd, but the very fact that it is necessary still for this study to consider and contest the following notions suggests how persuasive they must be among would-be female athletes. Significantly, this study posits:

- Athleticism as an inherent male prerogative received *little* support.
- Athleticism is especially demanding but seemingly *achievable* by both males *and females*.
- Female athletes it would appear do *not* experience either role *or* internal conflict as a consequence of appropriating a so-called male role.
- Androgyny applies *primarily* to instrumentality, but not at the *expense* of expressiveness.
- The androgynous athlete is *more likely* to be *female* and therefore *more likely* to be *successful*.

Thus, it would seem, whatever the feminist objections, it is always better to have more virtues than fewer; this is especially true where - as in this case - the absence of one virtue is apt to reduce the value or effectiveness of another.

THEORETICAL CONCLUSION

What does androgyny mean for athletes? How is androgyny related to other attributes? What are the consequences, if any, of having an androgynous gender-role identity? How can we better understand the role diversity of androgynous athletes? Are female athletes more susceptible to role-conflict? Are instrumental traits truly more suited to psychological adjustment and the subsequent athletic arena? What do we understand by social coercion? Is femininity socially coerced? These questions formed the basis of this theory test.

The findings offer some support that: (1) The anti-andrognist and anti-feminist positions are incorrect - women have as much right as men to engage in athleticism. (2) Social coerciveness of femininity is not morally required in athleticism on grounds of its usefulness in protecting femininity as part of biological essence, nor is it morally required on grounds of its usefulness in maintaining men's so-called 'inherent' entitlement to athleticism, or on grounds of minimising role incompatibilities. (3) Male and female athletes relate to androgyny differently, each assimilating an idealised individual consciousness. (4) Instrumentality over, but not exclusive of, expressiveness is recognised as the conceptual framework of androgyny for athletes. (5) The athletic female is *freer* to become androgynous and enter the competitive arena of significant achievement.

What then of the theory? After the preliminary study of this thesis, a tentative theory (TT₂) was posited that stated:

The demands of athletics and social coercion will result in the differing connotations of androgyny for male and female athletes.

The research also gave that error (EE) will be:

Evidence found that both male and female athletes account for androgyny similarly.

With echoes of Popper's challenge; 'under what conditions will you give up your theory'? This research has, as a result of what emerged, *little* evidence for considering the theory as falsified (EE). The theory proposed here, is supported to such an extent that athletes view androgyny differently on the basis of social recompense.

With one more tentative theory eliminated, it may allow sport-focus related androgyny research to proceed with the *trail* clearer if you will (cf. Massey, 1996; Wittgenstein, 1953). More importantly, it is hoped that some of the prejudice and social coercion have been exposed for what they are and that women will continue to demonstrate their true androgynous potential in athleticism.

CHAPTER 9 – PSYCHOLOGICAL ANDROGYNY:

A CONCLUSION

As has been extensively documented in this thesis, the success of athletes throughout the history of sporting participation has been regarded unevenly. The genders of women and men are categorised in the context of sport and athleticism. The general attitude suggests one of masculine supremacy and feminine suppression. An attitude which is fostered by other social beliefs regarding the 'weaker' or 'frailer' sex (Pirinen, 1997; Toohey and Veal, 2000). The fact that there is virtually no truth in these 'attitudes' (Figler and Whitaker, 1995; Griffin, 1991), coupled by the growing belief amongst practising women athletes, that women can in fact train harder and compete harder (Dyer, 1982; Koutedakis, 1996), secure in the knowledge that it is doing them good (Biddle, 1995; Grogan, 1999; Hall, 1996), not harm (Cashmore, 2002) Lenskyj, 1986) led to the differences between body images and some of the gender characteristics being reduced. This convergence of gender characteristics – psychological androgyny – is an attractive ideal that denotes the presence of both masculine and feminine qualities in an individual (Bem, 1974; Spence, 1974). Androgyny theory rests essentially on the assumption that dimensions of masculinity and femininity are empirically as well as logically independent, so that it is possible for someone to be both feminine and masculine [androgynous] according to situational appropriateness (see: Bem, 1974; Constantinople, 1973; Spence 1974). Androgyny therefore can often supplement relatively moderate physical and physiological endowments, so that some athletes can win races and turn in performances of which they would not normally be thought capable. But in thinking about athletic success, as with any other achievement, this research did not consider androgyny's beliefs and schema only. Clearly a whole host of influences that affect athletic success and behaviour such as personal goals, self-identities, self-perceptions, wind, track surface, nutrition, finances and so on (cf. Bannister, 1996; Cockerill and Hardy, 1987; Coakley and White, 1992; Choi, 2000; Hargreaves, 1994 Radford, 1996; Sailor and Seiler, 1996) also exist. These therefore were taken into account, but importantly do not in the least imply androgyny's dismissal, but rather only the recognition that androgyny cannot be considered alone in improving athletic performance.

Thus, women are successful in athletics in a way that they have never been. Traditional views of gender categories are being moved and positive change is occurring. As a result, as women run faster, jump higher, become more athletic, ideas that both women and men hold about female athleticism continue to change and thus break down false and destructive sexual stereotypes (Koutedakis, 1996; Scraton and Flintoff, 2002). While research has been conducted on the nature of androgyny in a managerial context (cf. Blanchard and Sargent, 1984; Baril, Elbert, Mahar-Potter, and Reavy, 1989 amongst others) as well as in career choice (cf. Arkin and Johnson, 1980; Berzins, Welling and Wetter, 1978 and so forth) and family roles (Allgeier, 1975; Atkinson and Huston, 1984; and others), there existed a major gap in our knowledge of personality characteristics of successful athleticism (Vetterling-Braggin, 1982; Stake, 2003). The purpose of this research therefore is to develop a conceptual and theoretical framework of an approach that posits an individual's ability to be a successful athlete which will be enhanced to the extent that he or she is able to exhibit appropriate androgynous characteristics (TT).

The first study sub-divided into three interdependent but manageable parts examined the role of psychological androgyny on the athletic success amongst current athletes. The study aimed to elicit if the successful current athlete should display androgynous traits whilst account for males seemingly considerable statistical superiority over women and at the same time females relative slow and erratic, but quite noticeable improvement. A sample of sixty (30m, 30f) current British Club-affiliated 100 and 200metre-sprint athletes who are successful were surveyed. The Bem Sex Role Inventory short version (SBSRI) a validated test instrument (Cook, 1985; Dyk and Adams, 1990; Zhang, Norvilitis and Shenghua, 2001 amongst others) which assesses the extent to which masculine and feminine traits co-exist in individuals (Bem, 1974) was assigned and as predicted current athletes were more inclined to be androgynous first (36.6 per cent); displaying both high levels of masculinity *and femininity* and only then a high degree of the characteristics of only one personality type (25 and 22.5 per cent respectively). Indeed, in terms of endorsing masculine and feminine characteristics, the personality profiles of successful current male and female athletes

tend to be remarkably similar ($X^2 = 0.671$, D.F.1, $p > 0.05$), a conclusion seemingly at odds with what little sport-related literature exists (cf. Mills and Bohannon, 1983; Myers and Lips, 1978; Spence and Helmreich, 1978; Williams and Miller, 1983, amongst others). Study one part (a) has argued that the focus on male versus female differences in gender-role research incorporated the biases of the larger spectrum in which scientist's research (cf. Kaplan and Sedney, 1980; Rebecca, Hefner and Oleshansky, 1976, and others) obscured femininity's more potent impact. A contribution therefore of this part of study one is that the success of current female athletes need not be at the cost of their femininity. The study also finds personal goals (Martens and Webber, 2002), physical appearance (Furnham and Greaves, 1994), self-esteem (Feltz, et al, 1989; George, 1994), and public-esteem (Welch and Costa, 1994) are motives too, as well as financial (Choi, 2000) and changing social structures (Hargreaves, 1994) but these were no more or less indicative for athletic success as compared to the relative importance granted to personal fulfilment (as denoted by Allgeier, 1975; Block, 1973; Olds, 1981; Olivares, 1991, amongst others). It would be prudent to suggest that androgyny is not the only factor that athletes consider in athletic achievement.

Study one part (b) extended the findings of part (a) by reviewing ex-athletes along established career paths. It was predicted that male ex-athletes would describe themselves as having an equal mix of traits that are considered masculine and feminine [androgynous] while female [ex-athletes] would not report androgyny. In doing so, a study of ex-athletes should account for the preceding decade's surge of improvement in women and men's more subdued performance improvements. Consistent with the sampling criteria in part (a) a matched sample of thirty (15M, 15F) ex-athletes (from when psychological androgyny was first initiated in the 1970s) were surveyed. Again the SBSRI was administered. Contrary to expectations, however, the prediction that female ex-athletes would not be androgynous was not substantiated. Part (b) found *female* as well as male ex-athletes were more inclined to be androgynous first (40 per cent), and only then to display the characteristics of only one personality type (23.3 and 23.3 per cent for each sex respectively). It appears therefore that in female ex-athletes, androgyny's influence is not absent, this was unexpected. Disparate results for the

relative importance granted to personal fulfilment as compared to personal goals, personal appearance, self-esteem and public-esteem suggest as with part (a) that athletic success is dependant upon many factors, of which androgyny is just one.

From a practical standpoint, the results of study one parts (a) and (b) suggest that athletes are classified first as androgynous, and only second as masculine and then feminine but to a lesser degree. This was contrary to expectations for the female ex-athlete. These results do suggest that female athletes (of whatever generation) tend to be remarkably similar in terms of endorsing masculine (Mean = 50.1 and 48.4 respectively) and feminine (Mean = 51.6 and 50.53 respectively) characteristics. It seems feminine's expressive orientation with an affective concern for the relationship between oneself and others and with the harmony of the group is athletically more effective than credited. As a final point, even though athlete's responses also varied slightly where psychological androgyny (as the relative importance granted to personal fulfillment) fitted in a framework for appropriating success, they were unanimous in considering it significant.

The purpose of study one part (c) therefore was to authenticate the findings in parts (a) and (b) by examining the prediction of whether androgyny is attributable to femininity as a whole. Or whether it is simply that females are becoming more male, as studies (cf. Mills and Bohannon, 1983; Myers and Lips, 1978; and so forth) evaluating sport-focused related androgyny theory tends to report. In assessing androgyny's prevalence a sample of forty-five (30f, 30m, 15F, 15M) non-athletes, preferably, but not exclusively at the expense of management were surveyed (see: Ghei and Nebel, 1994) with once again the SBSRI being administered. For assessment of women becoming more male the athlete samples as described were developed. Two seemingly conclusive outcomes emerged: (a) androgynous qualities are to be considered more desirable for sportswomen (36.6 per cent) than female non-athletes (4.4 per cent) who described themselves in a manner befitting their own sex (82.2 per cent) – a sentiment resonant of Choi (2000) and Gill's (1994) amongst others, studies. For (b) masculinity would appear to be a more meaningful, discriminatory dimension in female athlete's (24.9 per cent) samples than non-athletes (0 per cent), but not to the extent that

sportswomen are becoming more male. It is, thus, perfectly acceptable to talk about athletic women as androgynous and not purely in the broader context of femininity as a whole or simply as becoming more male. Thus there still exists a major gap in our knowledge of why masculinity has a supposedly stronger relationship to athletic adjustment than femininity. The point was simply that the current conceptualisation of androgyny in relation to athleticism was inconclusive and unsatisfactory. A commitment to understanding the social coercion that underlies the conscious process needs to be recognised (TT2).

The second study attempted to increase the researchers understanding of how gender relations (specifically the female gender) in athleticism are (re)produced in media texts. Articles on women's coverage in athletics and society provided interesting data for a content analysis about cultural stereotypes that associate femininity with 'weakness', the marginalisation and trivialisation of sportswomen's achievements, the framing of women in terms of their status in the private sphere and how these women were (under)represented. The data was systematically collected from the pages of the leading athletic publication, *Athletics Weekly* in 1976 and 2006 and from the pages of Britain's leading consumer magazines, *Woman's Weekly* (in 1976, 1978 and 2006), and *Woman's Own* (in 1973, 1974 and 2006) respectively. The sample consisted of 43 articles which were analysed to detect the five major semantic variables; activity, optimism, certainty, realism and commonality (Hart, 2003) using the computer software *Diction 5.0*. In *Athletics Weekly* women athletes were portrayed as 'less than' and 'other than' their male counterparts. This was done by giving women's performance less coverage and by framing women's achievements on aesthetic appeal ('the very tall', 'the very strong') rather than sporting competence. Sportswomen's abilities were called into question by making inappropriate comments on performance (e.g., 'who with an ungainly, over-striding', 'failure', and 'falling by the wayside') by archetypal objectification of women athletes. Thus by focussing on her aesthetic appeal, by trivialising and objectifying her, the sportswoman is made inferior and therefore less potent.

The consumer magazines *Woman's Weekly* and *Woman's Own* equated femininity with the integral components of career and domesticity while maintaining and enforcing a 'cult of femininity' (cf. Ferguson, 1983). This was evident by telling women what to think and do *about* themselves, their relationships, family, friends, children and careers, if not exactly what to think. Given the magazines evidence of binary oppositions such as man/woman; activity/passivity; dependence/independence; domesticity/career, it's of little surprise that women become trapped between the very contradictions and paradoxes magazines ostensibly promise to resolve. Importantly the magazines emphasise the social construction of gender and sexuality and thus show how 'false' binaries can be challenging to deconstruct.

Study three discusses the strategies applied in constructing gender relations in athletics as well as social contexts within the pictorial media. Study three hypothesised that gender relations in athletics are (re)produced in media pictures. It was also hypothesised that sportswomen have been pictorially underrepresented in the media and when pictured, are trivialised/marginalised by sexual objectification. It was further hypothesised that in general women have been pictorially portrayed in terms of their status in the private sphere (e.g. as wives, mothers). Using the media publications as outlined in study two, the pictorial data consisted of a total of 289 pictures, 102 from *Athletics Weekly*, 118 from *Woman's Own*, and 69 from *Woman's Weekly* respectively. These pictures were then subject to categorisation under the acronym: Setting, People, Activity, Movement and Size (SPAMS) as informed by Loizos (2000). In *Athletics Weekly* the noteworthy point from this investigation was the observation, by no means original (cf. Berger, 1972; Duncan, 1990; Ussher, 1997) that sportswomen have been trivialised/marginalised to some extent by sexual objectification. This was evident through photography of female athletes reduced to manageable sexual parts and by showing the female athlete with facial expressions that signify sexual invitation as branded by Duncan, (1990) and Ussher, (1997). Alongside this, study three's analysis of media pictures of female athletes revealed a disproportionate coverage to that of men. Simply put, photography of sportswomen is still underrepresented (46 per cent). More significantly yet, the consumer magazines *Woman's Weekly* and *Woman's Own* illustrate how the woman, due to the influence of social sanctions sees herself in the

patriarchal notions of femininity where she is sexually objectified and judged on her appearance in the hope of receiving recognition. This sense of contradiction is not typical of the public arenas alone – it bore striking resemblance with the athletic institution. The findings suggest, in the area of feminine images social sanctions persuasively shape sportswomen and women to internalise an objectifying observer's perspective on their femininity. In turn, socially sanctioned female images may provide a partial explanation at least, for women's involvement in athletics to gain enriching experiences, like an increase in self-confidence.

Taken together studies two and three suggest sportswomen are depicted as 'less than' or 'other than' their male equivalent. Women's participation in athletics was given less coverage and framed only in her 'aesthetic appeal'. Her body was subjected to the gaze of others [male and *female*] where feminine appropriateness and sexually objectifying is prominent. Importantly, it illustrated how women are denied opportunities in athletics through the construction of unequal representation; pay the cost for their appearance and subsequent appeal; and in turn, their athletic careers.

Study four attempted to increase our understanding of how the construction of gender relations indicates the differing connotations of androgyny for both sexes in the athletic arena. It predicted that athletics is viewed as an arena for cultural resistance and identity for sportswomen. It was also predicted that the rigidly defined social roles attached to both sexes underline the significance of role (in)compatibility for men and women in their athletic involvement. Finally, it predicted that the adequacy of gender-typing athletes in sport participation may be misleading in the researcher's understanding and in the development of women in athletics. The participants in study four were 12 athletes, both past and present (3M, 3F, 3m, 3f), recruited voluntarily through expression of interest to partake during the completion of the questionnaire phase. A semi-structured interview consisting of eight questions which were designed to prise athletes perceptions on the concept of psychological androgyny whilst paying close attention to feminist ideology and social coercion was administered. A 'meaning condensing technique' (see: Kvale, 1996) was applied and validated by an independent panel.

As expected, sportswomen's experiences are different to men's; in part a reflection of the ways gender is taught and reproduced in our society. Even so, the interviewees revealed some greater effect of the masculine doctrine for females, as might be expected (e.g., Colker and Widom, 1980; DeGregorio and Carver, 1980; Hoppe, 1979; Mills and Bohannon, 1983; amongst others). Further investigation contested the *ideal* of role incompatibility, with gender deemed *not* a mitigating factor. It seems unlikely the roles of woman and successful athlete are incompatible. It amounts simply to the conclusion that there is no more necessary or essential conflict between femininity and athleticism than there is between masculinity and athleticism. With reference to the prediction that gender-typing may be disingenuous in our understanding of women in athletics, androgynous theory was heralded as the cure for the socially imposed sex-roles. In general, interviewees likened personal fulfilment to conveying a sense of autonomy characterised by enjoyment, self-fulfilment and strength. Despite the apparent contradiction, interviewees were more inclined to frame personal fulfilment in its liking to instrumentality (masculine sex-role). Examination of this data yielded the phenomenon labelled the 'masculine supremacy effect' (cf. Cook, 1985; Stake, et al, 1996; Wong, et al, 1985) where masculine characteristics play a complementary but principal role within either gender. Fortunately, however, this in no way implied a feminine antithesis but rather athletes are not exclusively masculine in their characteristics at the expense of femininity but with somewhat less femininity. This suggests that the process, likelihood, and implications of becoming androgynous may be different for sportsmen and women. Simply then, sportswomen have more to gain now from becoming more masculine than sportsmen would from femininity whose benefits are often unseen, underplayed, and devalued. If women were *freer* to become androgynous while men remained as *fearful* as ever of the so-called feminine virtues, the female athlete would win races and turn in performances of which they would not normally be thought capable. When androgyny is viewed in this light it is difficult to oppose. It does not claim to be the only viable strategy for breaking down false and destructive social stereotypes; but it is an approach which is proving useful for women "to enter the competitive arena of significant achievement" (Heilbrun, 1981:64).

The thesis consequently offers the following conclusions:

1. Successful athletes are more likely to be androgynous individuals.
2. Androgynous qualities are more desirable for female athletes as compared to non-athletes.
3. Masculinity would appear to be a more meaningful, discriminatory dimension in female athletes than non-athletes.
4. The roles of woman and successful athlete are seemingly compatible.
5. Successful athletes classified as androgynous are more prone toward masculine as compared to feminine characteristics.
6. The androgynous athlete today is more likely to be female and therefore more likely to be successful.

The present results suggest interesting directions for future research. While this research may have documented the existence of androgynous behaviours within the sexes, at least in the athletic arena, little consideration has been given to the development of an effective teaching approach to androgyny. It is recommended that self-assessment procedures by which men and women can evaluate competencies for androgynous athletic behaviour are developed – a form of communication model for effective interaction – which may result in behavioural training sessions which teach androgyny.

Second, while the research results perpetuate male athletes fear of appropriating feminine virtues, the data was circumstantial. Though this area might be contentious, by extending the research found, the social process behind man's seeming reluctance to convey feminine interests may become clearer – and the avenue to male androgyny simpler – while subsequent athletic success more obtainable.

Third, the vast range of circumstantial and perspective influences that were shown in the print media to affect the state of being socialised necessitates further research into the behavioural uses of broadcast media. An examination of the current broadcast media contexts and behaviours would determine what causes the public to agree with, and pay attention to, specific media.

Another area of research that should be addressed concerns the potential negative consequences of athletic participation on the perceived sexuality and attractiveness of female athletes. Future research should expand on these issues by continuing to understand group perceptions and individual differences.

As a specific recommendation, researchers and practitioners should consider the multifaceted perception of athletic enquiry. Although the scenarios identified in this research utilised British club athletes, it is not known if the perceptions found here would hold true across sports, geographical regions or for professional or Olympic-level athletes.

These studies, in conjunction with the present one, will permit comparison across genders, countries, sports and media's, as well as develop an effective teaching approach to androgyny for athletes along chosen career paths. In addition to these studies, this study can be replicated with relative ease and its theoretical inferences falsified or modified should diametric results emerge. Such study would be welcomed. Such would also seem a natural contribution of the present research.

In closing, it is the psychological androgynous person – that is, an individual who integrates *both* masculinity and femininity in one's personality, an individual who can be instrumental or expressive as required – who would best have available the desired range of positive behaviours needed to be a successful athlete.

*"I've just remembered who I am
More than a long lost anagram
I've just remembered who I am
Slightly more than just a woman or a man"*

(Extract taken from Jah Wobble: *Invaders of the Heart*, 1994)

REFERENCES

- ADCOCKS, B. (2004) Personal Communication [E-mail]. Information Officer UK Athletics. February 2004.
- AIKEN, L., R. (1997) *Questionnaires and Inventories: Surveying Opinions and Assessing Personality*, New York: John Wiley and Sons.
- AIKEN and WEST (1991) 'Teaching Moderated Multiple Regression for the Analysis of Mixed Factorial Designs', in KOWALSKI, R. M. *Teaching of Psychology*, Vol. 22 [pp.197].
- AJZEN, I., (1988) *Attitudes, Personality and Behaviour* Buckingham: Open University Press.
- ALAGNA, S. W. (1982) 'Sex Role Identity, Peer Evaluation of Competition, and the Responses of Women and Men in a Competitive Situation', *Journal of Personality and Social Psychology*, Vol. 43 [pp.546-554].
- ALASUUTURI, P., (1995) *Researching Culture*, London: Sage Publications.
- ALEXANDER, C. (1999) *An Analysis of the Changing Nature of Ecotourism – The Case Study of CCA Phinda Game Reserve, South Africa*. MA TBA Tourism Studies, Birmingham: The University of Birmingham Press.
- ALLEN, K. (2002) 'Diet Grrrl – Feminism and Women Magazines', available at http://www.thefword.org.uk/features/2002/08/diet_grrrl_feminism_and_womens_magazines accessed 5th April 2008.
- ALLGEIER, E. R. (1975) 'Beyond Sowing and Growing: The Relationship of Sex Typing to Socialisation, Family Plans, and Future Orientation', *Journal of Personality and Social Psychology*, Vol. 5 [pp.217-226].
- ALLPORT, G., W. (1924) 'The Study of the Undivided Personality' *Journal of Abnor., and Sociology Psychology*, Vol. 19 [pp. 132-141].
- ALLPORT, G., W. (1937) *Personality: A Psychological Interpretation*, New York: Holt, Rinehart, and Winston.
- ALTHEIDE, D., L. (1996) *Qualitative Media Analysis*, California: Sage Publications.
- AMSTEY, F. H., and WHITBOURNE, S. K. (1981) 'Continuing Education, Identity, Sex Role, and Psychosocial Development in Adult Women', *Sex Roles*, Vol. 7 [pp.49-58].

- ANASTAS, J. W., (2004) 'Quality in Qualitative Evaluation: Issues and Possible Answers', *Research on Social Work Practice*, Vol. 14, No. 1 [pp.57-65].
- ANDREWS, D. L. (1998) 'Feminising Olympic Reality: Preliminary Dispatches from Baudrillard's Atlanta', *International Review for the Sociology of Sport*, Vol. 33, no. 1, [pp.5-18].
- ANGEN, M. J., (2000) 'Pearls, Pith and Provocation: Evaluating Interpretive Enquiry: reviewing the Validity Debate and Opening the Dialogue', *Qualitative Health Research*, Vol. 10, No. 3 [pp.378-395].
- ANGYAL, A., (1965) *Neurosis and Treatment: A Holistic Theory*, New York: Wiley.
- ANON. 'Running Clubs UK', Available at www.british-athletics.co.uk accessed 11/12/2004.
- ANON. 'UK Athletics Club Search', Available at www.ukathletics.com accessed 21/12/2004.
- ANTILL, J. K., and CUNNINGHAM, J. D. (1979) 'Self-esteem as a Function of Masculinity in Both Sexes' *Journal of Consulting and Clinical Psychology*, Vol. 47 [pp.145-155].
- ANTILL, J. K., CUNNINGHAM, J. D., RUSSELL, G., and THOMPSON, N. L. (1981) 'An Australian Sex-Role Scale' *Australian Journal of Psychology*, Vol. 32 [pp.195-207].
- ARCHER, J., and LLOYD, B., B. (1985) *Sex and Gender*, Cambridge: Cambridge University Press.
- ARCIERO, P. J., GORAN, M. I., and POEHLMAN, E. T., (1993) 'Resting Metabolic Rate is Lower in Women than in Men', *Journal of Applied Physiology*, Vol. 75 [pp.2514-2520].
- ARKIN, R. M., and JOHNSON, K., S. (1980) 'Effects of Increased Occupational Participation by Women on Androgynous and Non-androgynous Individuals' Ratings of Occupational Attractiveness', *Sex Roles*, Vol. 6 [pp.593-605].
- ASHMORE, R. D., DEAUX, K., and McLAUGHLIN-VOLPE, T. (2004) 'An Organising Framework for Collective Identity: Articulation and Significance of Multidimensionality', *Psychological Bulletin*. Vol. 130, No. 1 [pp.80-144].
- ATKINSON, J., and HUSTON, T. L., (1984) 'Sex role Orientation and Division of Labour Early in Marriage', *Journal of Personality and Social Psychology*, Vol. 46 [pp.451-459].

- BABBIE, E., (1990) *Survey Research Methods*, (2nd ed.), California: Wadsworth Publishing Company.
- BAILEY, K., D. (1978) *Methods of Social Research*, London: Collier-Macmillan.
- BAKAN, D., (1966) *The Duality of Human Existence*, Chicago: Rand-McNally.
- BAKER, S., (1980, April) *Counselling For Androgyny*. Paper presented at the annual meeting of the American Educational Research Association, Boston.
- BALLARD-REISCH, D., & ELTON, M. (1992). 'Gender Orientation and the Bem Sex Role Inventory: a Psychological Construct Revisited'. *Sex Roles*, 27:5/6, 291-306.
- BALLASTER, R., BEETHEM, M., FRAZER, E., and HEBRON, S. (1991) *Women's Worlds: Ideology, Femininity and the Woman's Magazine*. London: Macmillan [pp.1-3, 8-15 and 173-176].
- BANDURA, A., (1977) 'Self-efficacy: Toward a Unifying Theory of Behavioural Change', *Psychological Review*, 84 [pp. 191-215].
- BANNISTER, R., (1996) 'How Much Faster Can We Run?' in STAFFORD, I., (ed.), *The Sunday Express*, August 1996 [pp. 5-10].
- BARIL, G. L., ELBERT, N., MAHAR-POTTER, S., and REAVY, G. C. (1989) 'Are Androgynous Managers Really More Effective?' *Group and Organisation Studies*, Vol. 14 [pp.234-249].
- BARTHES, R. (1967) *Elements of Semiology*, New York: Hill and Wong.
- BARTKY, S. L. (1990) *Femininity and Dominations: Studies in the Phenomenology of Oppression*, New York: Routledge.
- BARUCH, G., BARNETT, R., and RIVERS, C. (1983) *Life Prints: New Patterns of Love and Work for Today's Women*, New York: McGraw-Hill.
- BASSOFF, E. S., and GLASS, G. V., (1982) 'The Relationship between Sex Roles and Mental Health: A Meta-Analysis of Twenty-Six Studies' *The Counselling Psychologist*, Vol. 10 [pp.105-112].
- BATE, B. (1988) *Communication and the Sexes*. Prospects Heights, IL: Waveland Press.
- BATSLEER, J., et al, (1985) *Rewriting English: Cultural Politics of Gender and Class*. London: Methuen.
- BAUCOM, D. H., and SANDERS, B. S. (1978) 'Masculinity and Femininity as Factors in Feminism', *Journal of Personality Assessment*, Vol. 42 [pp.378-384].

- BAUCOM, D. H. (1980) 'Independent CPI Masculinity and Femininity Scales: Psychological Correlates and a Sex-role Typology', *Journal of Personality Assessment*, Vol. 44 [pp.262-271].
- BAUER, M., W. (2000) 'Analytic Approaches for Text, Image and Sound', in BAUER, M., W. and GASKELL, G., (eds.) *Qualitative Researching with Text, Image and Sound*, London: Sage Publications.
- BAUER, M.W. and GASKELL, G. (1999) 'Towards a Paradigm for Research on Social Representations', *Journal for the Theory of Social Behaviour*, Vol. 29, (2) [pp.163-186].
- BAUMRIND, D., (1982) 'Are Androgynous Individuals More Effective Persons and Parents?' *Child Development*, Vol. 53 [pp.44-75].
- BAVELAS, J. B., (1995) "Quantitative versus qualitative?" *Social Approaches to Communication*. London: Guildford Press.
- BAYES, T., (1702 – 1761) 'Bayesian Probability', Available at <http://en.wikipedia.org/wiki/Bayesianprobability> accessed 11/02/2006.
- BBC NEWS, (2006) The Clickable Alternative 'Lad Mag', Available at <http://news.bbc.co.uk/1/hi/magazine/5122272.stm> accessed 5th April 2008.
- BEARMAN, P., (1996) 'Where to Now?' in STAFFORD, I., *The Sunday Express*, August 1996 [pp. 8-9].
- BEARMAN, P., (1996) 'Fast Forward: The Changing Shape of Sprint Champions' in STAFFORD, I., (ed.), *The Sunday Express*, August 1996 [pp. 8-9].
- BELL, J., (1999) *Doing Your Research Project*, (3rd edn.), Buckingham: Open University Press.
- BELLIOTTI, R. A. (1979) 'Women, Sex and Sports'. *Journal of Philosophy of Sport*, Vol. 6, [pp.68].
- BERNARD, L. C. (1981) 'The Multidimensional Aspects of Masculinity – Femininity', *Journal of Personality and Social Psychology*, Vol. 41 [pp.797-802].
- BEM, S. L., (1974) 'The Measurement of Psychological Androgyny' *Journal of Counselling and Clinical Psychology* Vol. 42 [pp.155-162].
- BEM, S. L., (1975) 'Sex Role Adaptability: One Consequence of Psychological Androgyny', *Journal of Personality and Social Psychology*, Vol. 31 [pp.634-643].

- BEM, S. L., (1978) 'A New Measure of Psychological Androgyny based Upon the Personality Research Form' *Journal of Consulting and Clinical Psychology*, Vol. 34 [pp.1016-1023].
- BEM, S. L., (1984) 'Androgyny and Gender Schema Theory: A Conceptual and Empirical Integration' *Nebraska Symposium on Motivation*, Vol. 32 [pp.179-226].
- BEM, S. L., (2003) Personal Communication [E-mail]. Professor at Cornell University. June 2003.
- BEM, S. L., MARTYNA, W., and WATSON, C., (1976) 'Sex Typing and Androgyny: Further Exploration of the Expressive Domain' *Journal of Personality and Social Psychology*, Vol. 34 [pp.1016-1023].
- BEM, S., L., (1976) *Probing the Promise of Androgyny in Beyond Sex-Role Stereotypes*, Boston: Little, Brown and Co. [pp.50-51].
- BEM, S., L., (1977) 'On the Utility of Alternative Procedures for Assessing Psychological Androgyny' *Journal of Consulting and Clinical Psychology*, Vol. 45 [pp.196-205].
- BEM, S., L., (1979) 'Theory and Measurement of Androgyny: A Reply to the Pedhazur-Tetenbaum and Lochsley-Colten Critiques' *Journal of Personality and Social Psychology*, Vol. 37 [pp.1047-1084].
- BEM, S., L. (1981a) 'Gender Schema Theory: A Cognitive Account of Sex Typing' *Psychological Review*, Vol. 88 [pp.354-364].
- BEM, S., L. (1981b) 'The BSRI and Gender Schema Theory: A Reply to Spence and Helmreich' *Psychological Review*, Vol. 88 [pp.369-371].
- BEM, S., L. (1982) 'Gender Schema Theory and Self-Schema Theory Compared: A Comment on Markus, Crane, Bernstein, and Siladi's "Self-Schemas and Gender"' *Journal of Personality and Social Psychology*, Vol. 43 [pp.1192-1194].
- BEM, S., L. (1993) *Lenses of Gender (Transforming the Debate on Sexual Inequality)*, New Haven: Yale University Press.
- BERELSON, B., (1952) *Content Analysis in Communication Research*, Glencoe, IL: Free Press.
- BERGER, J. (1972) *Ways of Seeing*, London: Penguin.
- BERNARD, H., R. (1988) *Research Methods in Cultural Anthropology*, Newbury Park, CA: Sage Publications.

- BERZINS, J. I., WELLING, M. A., and WETTER, R. E., (1976) *Androgynous vs. Traditional Sex Roles and the Interpersonal Behaviour Circle*, Paper presented at the annual meeting of the American Psychological Association, Washington, DC.
- BERZINS, J. I., WELLING, M. A., and WETTER, R. E., (1978) 'A New Measure of Psychological Androgyny Based on the Personality Research Form', *Journal of Consulting and Clinical Psychology*, Vol. 46 [pp.126-138].
- BETZ, N. E., and HACKETT, G., (1981) 'The Relationship of Career-related Self-efficacy Expectations to Perceived Career Options in College Women and Men', *Journal of Counselling Psychology*, 28(5) [pp. 399-410].
- BETZ, N. E., and HACKETT, G., (1983) 'The Relationship of Mathematics Self-efficacy Expectations to the Selection of Science-based College Minors', *Journal of Vocational Behaviour*, 23 [pp. 329-345].
- BHATTACHARYYA, D., P. (1997) 'Mediating India: An Analysis of a Guidebook', *Annals of Tourism*, Vol. 24 No. 2.
- BIDDLE, S. J. H., (1995) 'Exercise Motivation Across the Lifespan', in S. J. H., BIDDLE (ed.) *European Perspectives on Exercise and Sport Psychology*, Leeds: Human Kinetics.
- BILLINGS, A., G, and MOOS, R., H, (1981) 'The Role of Coping Responses and Social Resources in Attenuating the Stress of Life Events' *Journal of Behavioural Medicine*, Vol. 4 [pp.139-157].
- BIRRELL, S. (1984) 'Studying Gender in Sport: A Feminist Perspective'. In N. Theberge and P. Donnelly (Eds.) *Sport and the Sociological Imagination*, [pp.125-135] Fort Worth: Texas Christian University Press.
- BLANCHARD-FIELDS, F., SUHRER-ROUSSEL, L., and HERTZOG, C. (1994) 'A Confirmation Factor Analysis of the Bem Sex Role Inventory: Old Questions, New Answers', *Sex Roles*, Vol. 30 [pp.423-457].
- BLANCHARD, K. H., and SARGENT, A. (1984) 'The One-minute Manager is an Androgynous Manager', *Training and Development Journal*, May, Vol. 38 no. 5 [pp.83-85].
- BLANCHE, M. T., DURRHEIM, K., and PAINTER, D. (2008) *Research in Practice: Applied Methods for the Social Sciences*. South Africa: Juta and Company Limited.
- BLAU-DUPLESSIS, R. (1990) *Signets: Reading H.D.* Wisconsin: University of Wisconsin Press.

- BLAXTER, L., HUGHES, C and MALCOLM, T., (2001) *How to Research*, London: Open University Press.
- BLIGH, M. C., J.C. KOHLES, and J.R. MEINDL (2004) 'Charisma Under Crisis: Presidential Leadership, Rhetoric, and Media Responses Before and After the September 11th terrorist attacks'. *The Leadership Quarterly*, Vol. 15 No. 2, [pp.211-239].
- BLIGH, M. C., J. C. KOHLES, and J. R. MEINDL (2003) 'Textual Analysis of Leadership During Crises: A Methodological Illustration of Responses to 9/11'. Academy of Management Best Conference Paper, Conference Abstracts.
- BLIGH, M., and G. HESS (2005a) 'Leading Cautiously: Alan Greenspan, Rhetorical Leadership, and Monetary Policy. Working paper. Claremont Graduate University and Claremont McKenna College.
- BLIGH, M., and G. HESS (2005b) 'A Quantitative Assessment of the Qualitative Aspects of Chairman Greenspan's Communication'. Working paper. Claremont Graduate University and Claremont McKenna College.
- BLINDE, E. M., and TAUB, D. E., (1992) 'Homophobia and Women's Sport: The Disempowerment of Athletes', *Sociological Focus*, 25 [pp.151-166].
- BLOCK, J. H. (1973) 'Conceptions of Sex Role: Some Cross-cultural and Longitudinal Perspectives', *American Psychologist*, Vol. 28 [pp.515-526].
- BLOCK, J., H. (1976) 'Issues, Problems, and Pitfalls in Assessing Sex Differences: A Critical Review of the Psychology of Sex Differences' *Merrill-Palmer Quarterly*, Vol. 22, no. 4 [pp. 283-308].
- BLOCK, J., Von der LIPPE, A., and BLOCK, J. H. (1973) 'Sex-role and Socialisation Patterns: Some Personality Concomitants and Environmental Antecedents', *Journal of Consulting and Clinical Psychology*, Vol. 41 [pp.321-341].
- BLOCKBURGER, S., (2003) *Development and Training for the Decathlon*' Presentation for the ITFCA Athens 2004.
- BOLTON, E. B., and HUMPHREYS, L. W., (1977) 'A Training Model for Women – An Androgynous Approach', *Personnel Journal*, May, Vol. 56 no. 5 [pp.230-234].
- BOBKO, PHILIP, SCHWARTZ, JEFFREY, P. (1984) 'A Metric for Integrating Theoretically Related but Statistically Uncorrelated Constructs', *Journal of Personality Assessment*. Vol. 48, no. 1, [pp.11-16].

- BORDO, S. R. (1989) 'The Body and the Reproduction of Femininity: A Feminist Appropriation of Foucault', in JAGGAR, A. M. and BORDO, S. R. (eds.) *Gender/Body/Knowledge: Feminist Reconstructions of Being and Knowing*, New Brunswick, NJ: Rutgers University Press.
- BORDO, S., (1990) 'Reading the Slender Body', in M. JACOBUS, E. FOX KELLER and S. SHUTTLEWORTH (eds.) *Body Politics*, New York: Routledge.
- BORZOV, V., (1996) 'How Much Faster Can We Run?' in STAFFORD, I., (ed.), *The Sunday Express*, August 1996 [pp. 5-10].
- BOSSON, J. K., PREWITT-FREILINO, J. L. and TAYLOR, J. N. (In Press) 'Role Rigidity: A Problem of Identity Misclassification?' *Journal of Personality and Social Psychology*.
- BOUCHARD, T., J. LYKKEN, D., T. MCGUE, M. SEGAL, N. L., and TELLEGEN, A. (1990) 'Sources of Human Psychological Differences: The Minnesota Study of Twins Reared Apart. *Science*, Vol. 250 [pp.223-250].
- BOWLING, A., (1997) *Research Methods in Health* (1st ed.) Buckingham: Open University Press.
- BRANNAN, J., (1992) "Combining qualitative and quantitative methods: an overview", *Mixing Methods: Qualitative and Quantitative Research*, Hants, England: Avebury Press. [3-37]
- BRANNON, R. (1976) 'The Male Sex Role: Our Culture's Blue-Print of Manhood, and what it's done for us Lately' in DAVID, D., and BRANNON, R. (Eds.) *The Forty-Nine Percent Majority: the Male Sex Role*, Reading, Mass.: Addison-Wesley.
- BREWER, J., and HUNTER, A., (1989) *Multimethod Research: A Synthesis of Styles*. London: Sage Publications.
- BRODY, N. (1988) *Personality: In Search of Individuality*, New York: Academic.
- BROVERMAN, I. K., et al, (1970) 'Sex-role Stereotypes and Clinical Judgements of Mental Health' *Journal of Consulting and Clinical Psychology*, Vol. 34 [pp.1-7].
- BROVERMAN, I. K., VOGEL, R. S., BROVERMAN, D. M., CLARKSON, F. E., and ROSENKRANTZ, P. S., (1972) 'Sex-role Stereotypes: A Current Appraisal', *Journal of Social Issues*, Vol. 28 [pp.59-78].

- BRYMAN, A., (1984) "The debate about quantitative and qualitative research: a question of method and epistemology", *The British Journal of Sociology*. Vol. 35, (1) [75-93]
- BRYMAN, A., (1989) *Research Methods and Organisational Studies*, London: Unwin Hyman Publications.
- BRYMAN, A., (1992) "Quantitative and qualitative research: further reflections on their integration", (in, Brannan, J.) *Mixing Methods: Qualitative and Quantitative Research*, Hants, England: Avebury Press. [57– 78].
- BRYSON, L. (1994) 'Sport and the Maintenance of Masculine Hegemony', in BIRRELL, S., and COLE, C. L. (eds.), *Woman, Sport, and Culture*. Champaign, IL: Human Kinetics.
- BUEHLER, R., GRIFFIN, D., and ROSS, M. (1994) 'Exploring the 'Planning Fallacy' -: Why People Underestimate their Task Completion Times'. *Journal of Personality and Social Psychology*. Vol. 67 [pp.366-381].
- BUEHLER, R., GRIFFIN, D., and ROSS, M. (2002) 'Inside the Planning Fallacy: The Causes and Consequences of Optimistic Time Prediction'. In GILOVICH, T., GRIFFIN, D., and KAHNEMAN, D. (eds.) *Heuristics and Biases: The Psychology of Intuitive Judgement* Cambridge: Cambridge University Press.
- BUEHLER, R., and GRIFFIN, D. (2003). 'Planning, personality, and prediction: The role of future focus in optimistic time predictions'. *Organizational Behaviour and Human Decision Processes*. Vol. 92, [pp.80-90].
- BURCHARDT, C. J., and SERBIN, L. A., (1982) 'Psychological Androgyny and Personality Adjustment in College and Psychiatric Populations', *Sex Roles*, Vol. 10 [pp.341-346].
- BURFOOT, A., (1992) 'White Men Can't Run', *Runner's World*, August 1992, [pp.89-95].
- BURGESS, R. G., (1984) *Into the Field: An Introduction to Field Research*, London: George Allen and Unwin.
- BURRELL, G., and MORGAN, G., (1979) *Sociological Paradigms and Organisational Analysis*, London: Heinemann Educational Books.
- BUSS, A., H. (1989) 'Personality as Traits' *American Psychologists*, Vol. 44 [pp.1378-1388].

- CALLANAN, M. (1998) *The Semiotics and Discourse of Traveller Magazines*, MSoc.Sc Cultural Studies, Birmingham: The University of Birmingham Press.
- CAMMELL, E. (2006) Personal Communication [E-mail]. Marketing Manager of Descartes Publishing. May 2006.
- CAMPBELL, M., STEFFEN, J. J., and LANGMEYER, D. (1981) 'Psychological Androgyny and Social Competence', *Psychological Reports*, Vol. 48 [pp.691-694].
- CARLSSON, M., and MAGNUSSON, E., (1980) 'Construct Validation of the Bem Sex Role Inventory', *Scandinavian Journal of Psychology*, Vol. 21 [pp.27-31].
- CARROLL, C. (2006) Personal Communication [Telephone]. Professor at University of North Carolina. June 2006.
- CASHMORE, E., (2002) *Sports Psychology: The Key Concepts*, London: Routledge Publishers.
- CATTELL, R., B. (1947) 'Confirmation and Clarification of the Primary Personality Factors', *Psychometrika* Vol. 12 [pp.197-220]
- CATTELL, R., B. (1965) *The Scientific Analysis of Personality*, Baltimore: Penguin.
- CHANDLER, D. 1994. 'Semiotics for beginners'. Available at <http://www.aber.ac.uk/media/Documents/S4B/> Accessed, August 12, 2006.
- CHENAIL, R. J., (1995) 'Presenting Qualitative Data. The Qualitative Report', Available at www.nova.edu/ssss/QR/QR2-3/presenting.html Vol. 2, No. 3.
- CHOI, P., (2000) *Femininity and the Physically Active Woman*, London: Routledge.
- CHUSMIR, L. H., and KOBERG, C. S. (1990) 'Dual Sex Role Identity and its Relationship to Sex-role Conflict', *The Journal of Psychology*, Vol. 124 [pp.545-555].
- CLAREY, J. H., and SANFORD, A., (1982) 'Female Career Preference and Androgyny', *Vocational Guidance Quarterly*, Vol. 30 [pp.258-264].
- CLEGG, F. (1994) *Simple Statistics: A Course Book for the Social Sciences*. Cambridge: Cambridge University Press.
- COAKLEY, J., and WHITE, A., (1992) 'Making Decisions: Gender and Sport Participation among British Adolescent', *Sociology of Sport Journal*, 9(1) [pp.20-35]
- COCKERILL, S. A., and HARDY, C., (1987) 'The Concept of Femininity and its Implications for Physical Education', *British Journal of Physical Education*, 8(4) [PP.149-151].

- COFFEY, A., and ATKINSON, P. (1996) *Making Sense of Qualitative Data: Complementary Research Strategies*, Thousand Oaks, CA: Sage Publications.
- COHEN, L., and MAHON, L., (1994) *Research Methods in Education*, London: Routledge.
- COLKER, R., and WIDOM, C. S., (1980) 'Correlates of Female Athletic Participation: Masculinity, Femininity, Self-esteem, and Attitudes Toward Women', *Sex Roles*, Vol. 6 [pp.47-58].
- COLWIL, N. L., and LIPS, H. M. (1978) 'Masculinity, Femininity, and Androgyny: What have you done for us lately? In LIPS, H. M., and COLWIL, N.L. (Eds.), *The Psychology of Sex Differences*. Englewood Cliffs, NJ: Prentice-Hall.
- CONNELL, R. W., (1983) *Which Way is up? Essays on Class, Sex and Culture*, Sydney, Australia: Allen and Unwin.
- CONNELL, R., W. (1995) *Masculinities* Berkeley: University of California Press.
- CONSTANTINOPOLE, A., (1973) 'Masculinity-Femininity: An Exception to a Famous Dictum' *Psychological Bulletin*, Vol. 80 no. 5 [pp.380-487].
- COOK, E. P., (1985) *Psychological Androgyny*, New York: Pergamon Press.
- COOKE, P., (2001) 'Whither Tourism' *Locum Destination Review*, London: Cambrian Press.
- COOKE, R. A., and ROUSSEAU, D., M. (1984) 'Stress and Strain from Family Roles and Work-role Expectations', *Journal of Applied Psychology*, Vol. 69 [pp.252-260].
- COOPER, S. M., REID, C., and HANTON, S. (2002) 'Leisure Motives and Sex Roles', *Journal of Sports Science*, January.
- CORRIGAN, P., (1975) "Dichotomy is contradiction: on 'society' as constraint and construction, remarks on the doctrine of the 'two sociologies'", *Sociological Review*, Vol. 23, [211-43]
- CORSON, D., (1999) 'Critical Realism: Post-Popper Realism for the Real World', in SWANN, J., and PRATT, J. (eds.) *Improving Education: Realist Approaches to Method and Research*, London: Cassell.
- CROTTY, M., (1998) *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage Publications.

- CUNNINGHAM, J. D., and ANTILL, J. K. (1980) 'A Comparison Among Five Masculinity-Femininity Androgyny Instruments and Two Methods of Scoring Androgyny', *Australian Psychologists*, Vol. 15 [pp.437-448].
- DANN, D., (1990) 'The Nature of Managerial Work in the Hospitality Industry', *International Journal of Hospitality Management*, Vol. 9 [pp.319-334].
- DAVIS, A. K., PIGER, J. M., and SEDOR, L. M. (2005) *Beyond the Numbers: An Analysis of Optimistic and Pessimistic Language in Earnings Press Release*. St Louis, MO., and Notre Dame, IN: St. Louis and Notre Dame University Press.
- DE BEAUVOIR, S., (1973) *The Second Sex* trans. E. M. Parshley [p. 301] New York: Vintage.
- DeFRONZO, J., and BOUDREAU, F. (1977) 'An Alternative Procedure for Assessing Effects of Psychological Androgyny', *Psychological Reports*, Vol. 41 [pp.1059-1062].
- DeGREGORIO, E., and CARVER, C. S., (1980) 'Type A Behaviour Pattern, Sex Role Orientation, and Psychological Adjustment', *Journal of Personality and Social Psychology*, Vol. 39 [pp.286-293].
- DENNETT, D., (1991) *Consciousness Explained*. London: Penguin.
- DENZIN, N. K., and LINCOLN, Y. S., (1998) *The Landscape of Qualitative Research: Theories and Issues*, London: Sage Publications.
- DENZIN, N., (1970) *The Research Act in Sociology*. London: Butterworth.
- DENZIN, N., and LINCOLN, Y. S., (1994) "Introduction: entering the field of qualitative research", (in, Denzin, N., and Lincoln, Y. S.) *Handbook of Qualitative Research*. Thousand Oaks, California: Sage Publications [1-17]
- DEUTSCH, C. J., and GILBERT, L. A. (1976) 'Sex Role Stereotypes: Effect on Perceptions of Self and Others and on Personal Adjustment. *Journal of Counselling Psychology*, Vol. 23, [pp.373-379].
- DeVAUS, D., A. (2002) *Surveys in Social Research* (5th ed.), London: Routledge.
- DICK, F. W., (1993) 'Development of Maximum Sprinting Speed', *Track Technique*, No. 109 [pp.3475-3480].
- DIGMAN, J., M. (1990) 'Personality Structure: Emergence of the Five-Factor Model' *Annual Review of Psychology*, Vol. 41 [pp.417-440].

- DILLMAN, D. A., (2000) *Mail and Internet Surveys: The Tailored Design Method*, (2nd ed.), New York: Wiley.
- DOBBS, B., (1973) *Edwardians at Play*, London.
- DOHERTY, P., H. (1979) *Psychological Sex Typing, Dimensions of Achievement Motivation, and Educational, Career, and Family Plans of Single, Traditional-Age, Female College Seniors*, Unpublished Doctoral Dissertation, University of Iowa: Iowa City.
- DONALDSON, C., (1996) *A Study of Male Body Image and the Effects of the Media*, unpublished BSc dissertation, Manchester Metropolitan University.
- DOUGLAS, J., (1976) *Investigative Social Research*. London: Butterworth.
- DOWNING, N, E., (1979) 'Theoretical and Operational Conceptualisations of Psychological Androgyny: Implications for Measurement'. *Psychology of Women Quarterly*, Vol. 3 [pp. 284-192].
- DOYLE, A. L. (2003) 'Gender, Gender Role, and Gender Role-orientation of Exercise Task: Effects on Cardiovascular Reactivity and Confidence', Dissertation Submitted to the Eberly College of Arts and Sciences at West Virginia University.
- DUNCAN, M. C. (1990) 'Sports Photographs and Sexual Difference: Images of Women and Men in the 1984 and 1988 Olympic Games', *Sociology of Sport Journal*, Vol. 7 [pp.22-43].
- DUNCAN, M. C. (1994) 'The Politics of Women's Body Images and Practices: Foucault, the Panopticon and Shape Magazine', *Journal of Sport and Social Issues*, Vol. 18 [pp.48-65].
- DUNN, J., and PLOMIN, R., (1990) *Separate Lives*, New York: Basic.
- DUNNING, E. (1986) 'Sport as a Male Preserve: Notes on the Social Sources of Masculine Identity and It's Transformation', *Theory, Culture and Society*, Vol. 3 no. 1 [pp.79-90].
- DURKHEIM, E., (1964) *The Rules of Sociological Method*. New York: Free Press.
- DUQUIN, M. E. (1968) 'The Androgynous Advantage', in *Women and Sport: From Myth to Reality*, (ed.) OGLESBY, C. A. Philadelphia: Lea and Febiger Pub.
- DYER, K, F., (1982) *Catching up the Men: Women in Sport*, London: Junction Books Ltd.
- DYHOUSE, C., (1976) 'Social Darwinist ideas and the Development of Women's Education in England, 1880 – 1920', *History of Education*, Vol. 5 [pp.41-42].

- DYK, P. A., and ADAMS, G. A. (1990). 'Identify and Intimacy: An Initial Investigation of Three Theoretical Models Using Cross-lag Panel Correlations', *Journal of Youth and Adolescence*. Vol. 19 [pp.91-110].
- EASTERBY-SMITH, M., THORPE, R., and LOWE, A., (1992) *Management Research: An Introduction*. London: Sage Publications.
- EASTERBY-SMITH, M., THORPE, R., and LOWE, R. (2002) *Management Research: An Introduction*. (2nd edn.), London: Sage.
- ECCLES, J. S., and HAROLD, R. D., (1991) 'Gender Differences in Sport Involvement: Applying the Eccles' Expectancy-value Model', *Journal of Applied Sport Psychology*, 3 [pp. 7-35].
- ECO, U. (1977) 'The Influence of Roman Jakobson on the Development of Semiotics, in ARMSTRONG, D., and SCHOONEVELD, C.H. Vans, (eds.), *Roman Jakobson, Echoes of his Scholarship*. Lisse: Peter de Ridder Press [pp.39-58].
- ECO, U. (1994) *Apocalypse Postponed: Does the Audience have Bad Effects on Television?* Bloomington, IN: Indiana University Press. [pp.87-102].
- ECONOMIST, The (1997) *The Economist Numbers Guide: The Essentials of Business Numeracy*, (3rd edn), London: Profile Books.
- EDLEY, N., and WETHERALL, M. (1995) *Men in Perspective: Practice, power and Identity*, London: Prentice Hall/Harvester Wheatsheaf.
- EKLUND, R. (2006) Personal Communication [E-mail]. Editor *Athletics Insight*. July 2006.
- EISNER, E., (1993) 'Objectivity in Educational Research', in HAMMERSLEY, M., (ed.) *Educational Research: Current Issues*, Milton Keynes: Open University Press.
- EMMETT, D., (1966) *Rules, Roles, and Relations*, New York: St. Martin's Press.
- ENCARTA DICTIONARY (2006).
- ENGLISH, J. (1978) 'Sex Equality in Sports', *Philosophy and Public Affairs*. Vol. 7, no. 270 [pp.260].
- EVERED, R., and LOUIS, M., (1981) "Alternative perspectives in the organisational sciences: 'enquiry from the inside' and 'enquiry from the outside'", *Academy of Management Review*. Vol. 6 (3) [385-95]
- EYSENCK, H., J. (1953) *The Structure of Human Personality*, New York: Wiley

- FALBO, T., GRAHAM, J. S., and GRYSKIEWICZ, S. S., (1978) 'Sex roles and Fertility in College Women', *Sex Roles*, Vol. 4 [pp.845-851].
- FARMER, S. S., and FYANS, L. J. (1983) 'Married Women's Achievement and Career Motivation: The Influence of some Environmental and Psychological Variables', *Psychology of Women Quarterly*, Vol. 7 [pp.358-372].
- FELTZ, D. L., BANDURA, A., and LIRGG, C. D., (1989) 'Perceived Collective Efficacy in Hockey', in D. KENDZIERSKI (Chair) *Self Perceptions in Sport and Physical Activity: Self Efficacy and Self Image*, Symposium Conducted at the Meeting of the American Psychological Association, New Orleans, LA, August.
- FERGUSON, M. (1983) *Forever Feminine*, London: Heinemann Educational Books Ltd.
- FEYERABEND, P., (1987) *Farewell to Reason*. London: Verso.
- FIELDING, N. (1996b) 'Qualitative Interviewing', in GILBERT, N. (ed.), *Researching Social Life*, London: Sage Publications [pp.135-153].
- FIELDING, N. G., and FIELDING, J. L., (1986) *Linking Data: Qualitative Research*. [Network series 4] London: Sage Publications.
- FIGLER, S, and WHITAKER, G., (1995) *Sport and Play in American life*, Madison, Wisconsin: Brown and Benchmark.
- FINK, A. (1995b) *The Survey Handbook*, Thousand Oaks: CA: Sage Publications.
- FINK, A., and KOSECOFF, J. (1985) *How to Conduct Surveys A Step-By-Step Guide*, London: Sage Publications.
- FIRESTONE, W., (1987) "Meaning in method: the rhetoric of quantitative and qualitative research", *Educational Researcher*. No. 16 [16-21]
- FISHER, J. L., and NARUS, L. R., (1981a) 'Sex Role Development in Late Adolescence and Adulthood', *Sex Roles*, Vol. 7 [pp. 97-106].
- FITCH (2007) *Understanding Genetics*. Available at <http://www.thetech.org/genetics/ask.php?id=91> Accessed 10th December 2007.
- FODDY, W., (1994) *Constructing Questions for Interviews and Questionnaires*, Cambridge: Cambridge University Press.
- FONTANA, A., and FREY, J. H. (1994) 'Interviewing: The Art of Science', in DENZIN, N. K., and LINCOLN, Y. S. (eds.), *Handbook of Qualitative Research*, Thousand Oaks, CA: Sage Publications [pp.361-376].

- FONTAYNE, P., SARRAZIN, PH., and FAMOSE, J., P. (2000) 'The Bem Sex Role Inventory: Validation of a Short-version for French Teenagers', *European Review of Applied Psychology*, Vol. 50, no. 4 [pp.405-416].
- FORISHA, B. L., (1978) *Sex Roles and Personal Awareness*, Morristown, NJ: General Learning Press.
- FOUCAULT, M. (1977) *Discipline and Punish: The Birth of the Prison*, London: Allen Lane.
- FRABLE, D., E. (1989) 'Sex Typing and Gender Ideology: Two Facets of the Individual's Gender Psychology that go Together', *Journal of Personality and Social Psychology*, Vol. 56. [pp.95-108].
- FRABLE, D., E., and BEM, S., L. (1985) 'If You are Gender Schematic, all Members of the Opposite Sex Look Alike', *Journal of Personality and Social Psychology*, Vol. 49., [pp.459-468].
- FRANK, B., (1991) '*Sports, Looks, and a Woman: What Every Guy Needs to be Masculine*'. Paper presented at North American Society for the Sociology of Sport, Milwaukee, WI.
- FRASER, C., and MACRAE, K., (2000) *Subject Book – Philosophy of Psychology*, Monash University: Monash University Press.
- FRIEDAN, B. (1963) *The Feminine Mystique*, Hardcover Edition, NY: W.W. Norton and Company Inc.
- FREY, L. R., BOTAN, C. H., FRIEDMAN, C. H., and KREPS, G. L. (1991). *Investigating Communication: An Introduction to Research Methods*, Englewoods Cliffs, NJ: Prentice Hall.
- FUNDER, D., C. (1991) 'Global Traits: A Neo-Allportian Approach to Personality' *Psychological Science*, Vol. 2 [31-39].
- FURNHAM, A., and GREAVES, N., (1994) 'Gender and Locus of Control Correlates of Body Image Dissatisfaction', *European Journal of Personality*, 8 [pp.183-200].
- GABEL, K., (2000) 'The Female Athlete', in MAUGHAN, J., R. (ed.), *Nutrition in Sport*, Oxford: Blackwell Science Ltd. [pp.417-428].
- GADAMER, H. G., (1975) *Truth and Method*, London: Sheed and Ward.

- GADDY, C. D., GLASS, C. R., and ARNKOFF, D. B., (1983) 'Career Involvement of Women in Dual-career Families: The Influence of Sex-role Identity', *Journal of Counselling Psychology*, Vol. 30 [pp.388-394].
- GALLOWAY, K. (1997) *The Tardis Project*. Available at <http://www.tardis.ed.ac.uk/%7ekate/qmcweb/58.htm#snowball> Accessed 10th December 2007.
- GASH, S. (2000) *Effective Literature Searching for Research*, Aldershot: Gower Publishing.
- GAUNTLETT, D. (2002) *Media, Gender and Identity*. London: Routledge Publications.
- GAYTON, W. F., HAVU, G. F., OZMAN, K. L., and TAVORMINA, J. (1977) 'A Comparison of the Bem Sex Role Inventory and the PRF ANDRO scale,' *Journal of Personality Assessment*, Vol. 41, [pp.619-621].
- GEORGE, T. R., (1994) 'Self-confidence and Baseball Performance: A Causal Examination of Self-efficacy Theory', *Journal of Sport and Exercise Psychology*, 16 [pp. 381-399].
- GHAURI, P., and GRONHAUGH, K. (2002) *Research Methods in Business Studies: A Practical Guide*, (2nd edn.), Harlow: Financial Times Prentice Hall.
- GHEI, A., and EDDYSTONE, C. NEBEL III (1994) 'The Successful Manager and Psychological Androgyny: A Conceptual and Empirical Investigation of Hotel Executives' *International Journal of Hospitality Management*, Vol. 13. No. 3 [pp.247-264].
- GHOSH, B., N. and CHOPRA, P., K. (2003) *A Dictionary of Research Methods*, Leeds: Wisdom House Publications Ltd.
- GILBERT, L. A. (1981). 'Toward Mental Health: The Benefits of Psychological Androgyny', *Professional Psychology*, Vol. 12, [pp.29-38].
- GILBERT, N., (1993) *Researching Social Life*, (1st ed.) London: Sage Publications.
- GILBERT, L. A., DEUTSCH, C. J., and STRAHAN, R. F. (1978) 'Feminine and Masculine Dimensions of the Typical, Desirable, and Ideal Woman and Man'. *Sex Roles*, Vol. 4, [pp.767-778].
- GILL, D., L. (1986) *Psychological Dynamics of Sport*, Illinois: Human Kinetics.
- GILL, S., STOCKARD, J., and JOHNSON, M., (1987) 'Measuring Gender Differences' *Sex Roles*, Vol. 17, no. 7/8 [pp34-43].

- GILL, D., L. (2002) 'Gender and Sport Behaviour' in HORN, T., S. (2002) *Advances in Sport Psychology*. (2nd Ed.), Champaign, IL: Human Kinetics.
- GILMORE, A., and CARSON, D., (1996) 'Integrative' Qualitative Methods in a Services Context', *Marketing Intelligence and Planning*, Vol. 14, No. 6 [pp.21-26].
- GIST, M.E., and MITCHELL, T. R., (1992) 'Self-efficacy: A Theoretical Analysis of its Determinants and Malleability', *Academy of Management Review*, 17 [pp. 183-211].
- GLEDHILL, C. (1992) 'Pleasurable Negotiations', in BONNER, F., GOODMAN, L., ALLEN, R., JANES, L., and KING, C. (eds.) *Imagining Woman: Cultural Representations and Gender*. Cambridge: Polity in association with the Open University, [pp.193-209].
- GOLDBERG, L., R. (1990) 'An Alternative 'Description of Personality': The Big-Five Factor Structure' *Journal of Personality and Social Psychology*, Vol. 59 [1216-1229].
- GRAHAM, V., HERNANDEZ L., AND LYONS M. (1997) *Media Reinforces Some Gender Stereotypes, Breaks Others: Women and Girls are Under-represented Across Many Media*. US: Kaiser Family Foundation.
- GREGER, K., R. and WITHIAM, G., (1991) 'The View from the Helm: Hotel Execs Examine the Industry', *Cornell H.R.A. Quarterly*, October, Vol. 32 (3) [pp.18-35].
- GRIFFIN, C., (1991) 'Sex Differences and Gender Relations: Yes, But Who Does the Washing Up?' cited in COCHRANE, R., and CARROLL, D., *Psychology and Social Issues*, London: The Falmer Press.
- GRIFFIN, P, S., (1987) *Homophobia, Lesbians, and Women's Sports: An Exploratory Analysis*, Paper presented at the 95th Annual Convention of the American Psychological Association, New York City.
- GROGAN, S., (1999) *Body Image*, London: Routledge.
- GUBA, E, G., (1996) "What happened to me on the road to Damascus", (in HESHUSIUS, L., and BALLARD, K.) *From Positivism to Interpretivism and Beyond: Tales of Transformation in Educational and Social Research (The Mind-Body Connection)*, New York: Teachers College of Columbia University Press. [43-49]
- GUBA, E., and LINCOLN, Y., (1982) "Epistemological and methodological bases of naturalistic enquiry" *Educational Communication and Technology Journal*. Vol. 30 (4) [233-52]
- GUBA, E., and LINCOLN, Y., (1989) *Fourth Generation Evaluation*. London: Sage Publications.

- GUERRIER, Y., and LOCKWOOD, A., (1991) 'Managers in Hospitality: A Review of Current Research'. In COOPER, C., P (ed.), *Progress in Tourism, Recreation and Hospitality Management*, Vol. 2 London: Bellhaven Press [pp. 151-167].
- GUILFORD, J., P. (1975) 'Factors and Factors of Personality' *Psychological Bulletin*, Vol. 82 [pp.802-814].
- GUISINGER, S., and BLATT, S. J., (1994) 'Individuality and Relatedness' *American Psychologist*, Vol. 49 [pp.104-111].
- HAKULINEN, T., (1996) 'Is Competitive Athletics Suitable for Women? Discussion of the 1920s' in NEVALA, A., (ed.) *The Olympic Movement and Women's Physical Culture, both 100 Years of Age*, Kitee: Suomen Urheiluhistoriallinen Seura.
- HALL, M. A., (1988) 'The Discourse of Gender and Sport: From Femininity to Feminism' *Sociology of Sport Journal*, [pp.330-340].
- HALL, M. A., (1996) *Feminism and Sporting Bodies: Essays on Theory and Practice*, Champaign, IL: Human Kinetics.
- HAMMERSLEY, M., (1992) "Deconstructing the qualitative – quantitative divide", (in, BRANNAN, J.) *Mixing Methods: Qualitative and Quantitative Research*, Hants, England: Avebury Press. [39-55]
- HAMMERSLEY, M., (1996) "The relationship between qualitative and quantitative research: paradigm loyalty versus methodological eclecticism", (in, Richardson, J.T.E.) *Handbook of Qualitative Research Methods for Psychology and the Social Sciences*. Leicester: BPS Books.
- HAMLYN, D. W., (1995) "Epistemology, history of", (in, Hondereich, T.) *The Oxford Companion to Philosophy*. Oxford: OUP.
- HANDAL, P. J., and SALIT, E. D. (1985) 'Gender-role Classification and Demographic Relationships: A Function of Type of Scoring Procedure', *Sex Roles*, Vol. 12, No. 3/4, [pp.411-419].
- HARGREAVES, J., (1993) 'The Victorian Cult of the Family and the Early Years of Female Sport' cited in DUNNING, E., et al, *The Sports Process*, Champaign: Human Kinetics.
- HARGREAVES, J., (1994) *Sporting Females: Critical Issues in the History and Sociology of Women's Sport*, New York: Routledge.

- HARREN, V. A., and BISCARDI, D. L., (1980) 'Sex roles and Cognitive Styles as Predictors of Holland Typologies', *Journal of Counselling Psychology*, Vol. 17 [pp.231-241].
- HARREN, V. A., KASS, R. A., TINSLEY, H. E. A., and MORELAND, J. R., (1979) 'Influence of Gender, Sex-Roles Attitudes, and Cognitive Complexity on Gender-Dominant Career Choices', *Journal of Counselling Psychology*, Vol. 26 [pp.227-234].
- HARRIS, H., (2001) 'Content Analysis of Secondary Data: A Study of Courage in Managerial Decision-Making', *Journal of Business Ethics*, Vol. 34, No. 1 [pp.191-208].
- HART, R. (2006) Personal Communication [E-mail]. Liddell Professor of Communication and Professor of Government at the University of Texas. June 2006.
- HART, R. P. (1984) *Verbal style and the Presidency: A Computer-based Analysis*. Orlando, FL: Academic Press, Inc.
- HART, C., (1998) *Doing a Literature Review*, London: SAGE Publications.
- HART, R. P., and S. JARVIS (1997) 'Political Debate: Forms, Styles, and Media'. *American Behavioural Scientist* Vol. 40 [pp.1095-1122].
- HART, R. P. (1997a) *Diction 4.0: The Text Analysis Programme CD – ROM and User's Manual*, London: Sage Publications Software.
- HART, R. P. (1997b). 'Rhetoric, Hope and American Politics', in TRENT, J. (Eds.). *At the Helm in Speech Communication*, Boston, MA: Allyn and Bacon.
- HART, R. P. (2000a), *Diction 5.0: The Text Analysis Programme*, Thousand Oaks, CA: Scolari/Sage publications.
- HART, R. P. (2000b), *Campaign Talk: Why Elections are Good for Us*, Princeton, NJ: Princeton University Press.
- HART, R. P., and GOURGEY, H. (1998) 'Accepting the Political Mantle: Stylistic Considerations', *Political Communication*, special CD – ROM edition.
- HART, R. P., and JARVIS, S. E. (1997), 'Political Debate: Forms, Styles and Media', *American Behavioural Sciences*, Vol. 40 [pp.1085-1122].
- HARVEY, S. (2006) Personal Communication [E-mail]. Researcher at IPC Media. May 2006.
- HASLAM, S., A. and MCGARTY, C. (1998) *Doing Psychology, An Introduction to Research Methodology and Statistics*, London: Sage Publications.

- HAYMES, E. M., (1988) 'Temperature and Exercise' in PUHL, J., BROWN, C. H., and VOY, R. O., (eds.), *Sports Science Perspectives for Women*, Champaign, Illinois: Human Kinetics
- HAYWOOD, L., KEW, F. C., BRAMHAM, P., SPINK, J., CAPENERHURSTT, J., and HENRY, I. P. (1995) *Understanding Leisure*. London: Nelson Thornes Ltd.
- HEADAPOHL, J. (2000) The Definition of Success
<http://www.pobonline.com/CDA/ArticleInfo.../0,2338,5794,00.htm> accessed 08/10/2004.
- HEALEY, M. J., (1991) 'Obtaining Information From Businesses', in HEALEY, M. J., (ed.), *Economic Activity and Land Use*, Harlow: Longman [pp.193-251].
- HEALEY, M. J., and RAWLINSON, M. B., (1994) 'Interviewing Techniques in Business Management Research', in WASS, V. J., and WELLS, P. E., *Principles and Practice in Business and Management Research*, Aldershot, Dartmouth [pp.123-45].
- HEGELSON, W., (1994) 'The Relation of Agency and Communion to Well-Being: Evidence of Potential Explanations' *Psychological Bulletin*, Vol. 16 no. 3 [pp.412-428].
- HEIDENSTROM, P. N., (1996) 'Big Red Book' in SAILER, S., and SEILER, S., (1996) 'The Fall and Rise of the "Gender Gap" in World Class Running' (Draft) Available at www.uta.fi/~csmipe/sport accessed 12/05/2005.
- HEILBRUN, A. B. (1968) 'Sex Role, Instrumental-expressive Behaviour, and Psychopathology in Females', *Journal of Abnormal Psychology*, Vol. 73 [pp.131-136].
- HEILBRUN, C. G., (1973) *Towards Recognition of Androgyny*, New York: Alfred A., Knopf.
- HEILBRUN, C. G. (1976) 'Measurement of Masculine and Feminine Sex Role Identities as Independent Dimensions' *Journal of Consulting and Clinical Psychology*, Vol. 44 [pp.183-190].
- HEILBRUN, A. B., (1981) *Human Sex-Role Behaviour*, New York: Pergamon Press.
- HEILBRUN, A. B. (1981a) 'Gender Differences in the Functional Linkage Between Androgyny, Social Cognition, and Competence'. *Journal of Personality and Social Psychology*, Vol. 41, [pp.1106-1118].
- HEILBRUN, A. B., and PITMAN, D. (1979) 'Testing Some Basic Assumptions about Psychological Androgyny', *Journal of Genetic Psychology*, Vol. 135 [pp.175-188].

- HELMREICH, R. L., SPENCE, J. T., and HOLAHAN, C. K., (1979) 'Psychological Androgyny and Sex-Role Flexibility: A Test of Two Hypotheses' *Journal of Counselling Psychology*, Vol. 27 [pp.1631-1644].
- HELMREICH, R. L., SPENCE, J. T., and WILHELM, J. A. (1981) 'A Psychometric Analysis of the Personal Attributes Questionnaire', *Sex Roles*, Vol. 7 [pp.1097-1108].
- HIBBARD, G. R., ed. (1987) *Hamlet*. Oxford: Oxford Worlds Classics Series.
- HINRICHSEN, J. J., FOLLANSBEE, D. J., and GANELLEN, R., (1981) 'Sex-role Related Differences in Self-concept and Mental Health', *Journal of Personality Assessment*, Vol. 45 [pp.584-599].
- HOAGLAND, S. L., (1977) *On the Status of the Concepts of Masculinity and Femininity*, Lincoln: Nebraska Department of Education.
- HODSON, R. (1999). *Analysing Documentary Research*, London: Sage University Press.
- HOFEREK, M. J. (1982) 'Sex-role Prescriptions and Attitudes of Physical Educators', *Sex Roles*. Vol. 8. [pp.83-98].
- HOFFMAN, D. M., and FIDELL, L. S. (1979) 'Characteristics of Androgynous, Undifferentiated, Masculine, and Feminine Middle Class Women', *Sex Roles*, Vol. 5 [pp.765-781].
- HOFFMAN, L., W. (1977) 'Changes in Family Roles, Socialisation, and Sex Differences', *American Psychologist*, Vol. 32 [pp.644-657].
- HOFFMAN, P., (2002) 'Cross Country and Running Analysis' Available at www.cs.uml.edu/~phoffman/xc.shtml accessed 12/05/2005.
- HOGAN, H. W. (1977) 'The Measurement of Psychological Androgyny: An Extended Replication', *Journal of Clinical Psychology*, Vol. 33, [pp.1009-1013].
- HOLAHAN, C. K., and GILBERT, L. A., (1979) 'Interrole Conflict for Working Women: Careers Versus Jobs', *Journal of Applied Psychology*, Vol. 64 [pp.86-90].
- HOLAHAN, C. J., and MOOS, R. H., (1987) 'Personal and Contextual Determinants of Coping Strategies' *Journal of Personality and Social Psychology*, Vol. 52 [pp. 946-955].
- HOLSTI, O., R. (1969) *Content Analysis for the Social Sciences and Humanities*, Reading, MA: Addison-Wesley.
- HOLT, C. L., and ELLIS, J. B. (1998) 'Assessing the Current Validity of the Bem Sex Role Inventory', *Sex Roles*, Vol. 29, no. 11/12 [pp.929-941].

- HOPPE, C. M., (1979) 'Interpersonal Aggression as a Function of Subject's Sex, Subject's Sex-role Identification, Opponent's Sex, and Degree of Provocation', *Journal of Personality*, Vol. 47 [pp.317-329].
- HUBERMAN, A. M., and MILES, M. B. (1994) 'Data Management and Analysis Methods', in DENZIN, N. K., and LINCOLN, Y. S. (eds.), *Handbook of Qualitative Research*, Thousand Oaks, CA: Sage Publications [pp.428-444].
- HUGHES, J., and SHARROCK, W., (1990) *The Philosophy of Social Research*. (3rd Ed.) London: Longman.
- HUSSERL, E., (1946) *Ideas: A General Introduction to Pure Phenomenology*. London: George Allen and Unwin.
- HUNT, M., (1993) 'Expressiveness Does Predict Well-being' *Sex Roles*, Vol. 29. No. 3/4 [pp. 147-169].
- HYDE, J. S., and PHILLIS, D. E. (1979) 'Androgyny Across the Life Span', *Developmental Psychology*, Vol. 15, [pp.334-336].
- IAAF (2003) 'World Track and Field Championships: 400metres' Available at www.cbc.ca/sports/iaaf/how/400m.html accessed 12/05/2005.
- IAAF (2003) 'Development of Performance: 200metres' Available at www.cbc.ca/sports/iaaf/how/200m.html accessed 12/05/2005.
- ICKES, W., and BARNES, R. D., (1985) 'Boys and Girls Together – and Alienated: On Enacting Stereotyped Sex Roles in Mixed Sex Dyads' *Journal of Personality and Social Psychology*, Vol. 36 no. 7 [pp.669-672].
- INTERNATIONAL OLYMPIC COMMITTEE (1991) 'Nutrition for Sport', comprehensive review, presented at the *Consensus Conference*, Lausanne.
- INTERNATIONAL OLYMPIC COMMITTEE (2003) 'Nutrition for Sport', comprehensive review, presented at the *Second Consensus Conference*, Lausanne.
- JANKOWICZ, A., D. (1991) *Business Research Projects for Students*, London: Chapman and Hall.
- JACKSON, D., N. (1967) *Personality Research Form Manual Goshen*, New York: Research Psychologists Press.
- JACKSON, S, A., and MARSH, H, W., (1986) 'Athletic or Antisocial? The Female Sport Experience' *Journal of Sport Psychology*, Vol. 8 [pp.198-211].
- JENNINGS, A., (1996) *The New Lords of the Rings*, London: Pocket Books.

- JOHN, O., P. and ROBINS, R., W. (1993) 'Gordon Allport: Father of the Five-Factor Model. In K. h. Craik, R. Hogan, and R. N. Wolfe (Eds.), *Fifty Years of Personality Psychology*, [pp.215-236] New York: Plenum.
- JOHNSON, M., (1996) *Slaying the Dragon*, New York: HarperCollins Publishers Inc.
- JONES, S. (1985) 'Depth Interviewing', in WALKER, R. (ed.), *Applied Qualitative Research*, Aldershot: Gower [pp.45-55].
- JONES, W. H., CHERNOVETZ, M. E., and HANSSON, R. O. (1978) 'The Enigma of Androgyny: Differential Implications for Males and Females?' *Journal of Consulting and Clinical Psychology*, Vol. 46, [pp.298-313].
- JOSEPHS, R. A., MARKUS, H. R., and TAFARODI, R. W. (1992) 'Gender and Self-Esteem' *Journal of Personality and Social Psychology*, Vol. 63 [pp.391-402].
- KAGAN, J. (1964) 'Acquisition and Significance of Sex Typing and Sex-Role Identity' in HOFFMAN, M., L., and HOFFMAN, L., W. (eds.) *Review of Child Development Research*, Vol. 1 New York: Russell Sage Foundation.
- KALIN, R. (1979) 'Method for Scoring Androgyny as a Continuous Variable', *Psychological Reports*, Vol. 44 [pp.1205-1206].
- KANTAR, J., R. (1924) *Principles of Psychology* New York: Knopf.
- KANTER, J. E., and ELLERBUSCH, R. C., (1980) 'Androgyny and Occupational Choice', *Psychological Reports*, Vol. 47 [pp.1289-1290].
- KANE, M. J., (1995) 'Resistance/Transformation of the Oppositional Binary: Exposing Sport as a Continuum', *Journal of Sport and Social Issues*, 19 [pp.191-218]
- KAPLAN A., G, and BEAN, J., (1976) *Beyond Sex-Role Stereotypes: Readings toward a Psychology of Androgyny*, Boston: Little, Brown and Co.
- KAPLAN, A. G., and SEDNEY, M. A., (1980) *Psychology and Sex Roles: An Androgynous Perspective*, Boston: Little, Brown.
- KAPLAN, A. G. (1979) 'Clarifying the Concept of Androgyny: Implications for Therapy', *Psychology of Women Quarterly*, Vol. 3 [pp.223-230].
- KAPLAN E., A. (1987) 'Feminist Criticism and Television', in KAPLAN, R., C. (eds.), *Channels of Discourse*, NC: Chapel Hill.
- KARDONG, D., (1998) 'A Conversation with Bloomsday Founder Don Kardong', Available at www.ontherun.com accessed 27/05/2005.

- KELLY, J. A., FURMAN, W., and YOUNG, V. (1978) 'Problems Associated with the Typological Measurement of Sex Roles and Androgyny', *Journal of Consulting and Clinical Psychology*, Vol. 46 [pp.1574-1576].
- KELLY, J. A., and CAUDILL, M. S., HATHORN, S., and O'BRIEN, C.G. (1977) 'Socially Undesirable Sex-correlated Characteristics: Implications for Androgyny and Adjustment' *Journal of Consulting and Clinical Psychology*, Vol. 45 [pp.1185-1186].
- KELLY, J. A., and WORRELL, J. (1977) 'New Formulations of Sex Roles and Androgyny: A Critical Review' *Journal of Consulting and Clinical Psychology*, Vol. 45 [pp.1101-1115].
- KENYANS, L., (1992) 'The Other Kenyans', *Runner's World*, August 1992, [pp.96-103].
- KEMMERLING, G., (1999) <http://people.delphi.com.gkemmerling>.
- KERVIN, J., B. (1992) *Methods for Business Research*, New York: HarperCollins.
- KERLINGER, F. N. (1970) *Foundations of Behavioural Research*, New York: Holt, Rinehart and Winston.
- KERLINGER, F. N. (1972) *Foundations of Behavioural Research*, New York: Holt, Rinehart and Winston.
- KERLINGER, F. N., (1973) *Foundations of Behavioural Research. Educational and Psychological Enquiry*, (2nd Ed.) New York: Holt, Rinehart and Winston.
- KIRKPATRICK, S. W., and SANDERS, D. M., (1978) 'Body Image Stereotypes: A Developmental Comparison', *Journal of Genetic Psychology*, 132 [pp.87-95]
- KOHLBERG, L., (1966) 'A Cognitive-Developmental Analysis of Children's Sex-Role Concepts and Attitudes' in MACCOBY, E., E. (eds.) *The Development of Sex Differences*, Stanford, CA.: Stanford University Press.
- KOUTEDAKIS, Y., et al, (1990) "The Role of Physical Resting for Underperforming Elite Competitors. *British Journal Sports Medicine*. 24(4) [248-252].
- KORABIK, K., and KAMPEN, J, V., (1995) 'Gender, Social Support and Coping with Work Stressors Among Managers' *Journal of Social Behaviour and Personality*, Vol. 10 [pp. 135-148].
- KOUTEDAKIS, Y., and SHARP, NCC. (1986) 'A Modified Wingate Test for Measuring Anaerobic Work of the Upper Body in Junior Rowers' *British Journal Sports Medicine*, 20(4) [153-156].

- KOUTEDAKIS, Y., and SHARP, NCC. (1991) 'Training the Female Competitor: Physiological Aspects of Fitness' *British Journal Sports Medicine*, 25(4) [188-190].
- KRANE, V., (1997a) 'Introduction to Special Theme Issue: Sexualities, Culture and Sport', *Women's Sport and Physical Activity Journal*, 6(2) [pp. 1-6].
- KRANE, V., (1997b) 'Homonegativism Experienced by Lesbian Collegiate Athletes', *Women's Sport and Physical Activity Journal*, 6(2) [pp.141-193].
- KRANE, V., (1999) 'Challenging Hegemonic Masculinity', in V. KRANE and P. CHOI, *The Body Beautiful and the Physically Active Woman* Colloquium presented at the 14th Annual Conference of the Association for the Advancement of Applied Sport Psychology, 22-26 September, Banff, Canada.
- KRAVITZ, L., ROBERGS, R. A., HEYWARD, V. H., WAGNER, D. R., and POWERS, K., (1997) 'Exercise Mode and Gender Comparisons of Energy Expenditure at Self-selected Intensities', *Medicine and Science in Sports and Exercise*, Vol. 29 [pp.1028-1035].
- KREMER, J., SHEEHY, N., REILLY, J., TREW, K., and MULDOON, O., (2003) 'Sport and Exercise' *Applying Social Psychology*, New York: Palgrave MacMillan
- KRIPPENDORF, K., (1969) 'Models of Messages: Three Prototypes', in GERBNER, G., HOLSTI, O., R. KRIPPENDORF, K., PAISLEY, W., J. and STONE, P., J. (eds.), *The Analysis of Communication Contents: Developments in Scientific Theories and Computer Techniques*, New York: Wiley.
- KRIPPENDORF, K., (1980) *Content Analysis: An Introduction to its Methodology*, London: Sage Publications.
- KRIPPENDORF, K., (1994) 'On Reliability of Unitising Continuous Data', *Sociological Methodology*, Vol. 25 [pp.47-76].
- KRIPPENDORF, K., (2004) *Content Analysis: An Introduction to its Methodology*, (2nd ed.), Thousand Oaks, CA: Sage Publications.
- KUHN, T, S., (1970a) *The Structure of Scientific Revolutions*. (2nd Ed.) Illinois, Chicago: University of Chicago Press.
- KUHN, T, S., (1972) *The Structure of Scientific Revolutions*, (3rd Ed.) Illinois, Chicago: University of Chicago Press.
- KUHN, T, S., (1970c) "Reflections of my own critics", (in, Lakatos, I., and Musgrave, A.) *Criticism and the Growth of Knowledge*. London: Cambridge University Press. [321-78]

- KUHN, T. S., (1974) "Second thoughts about paradigms", (in, Suppe, F.) *The Structure of Scientific Theories*. (2nd Ed.) Illinois, Chicago: University of Illinois Press.
- KUMAR, R., (1999) *Research Methodology A Step-By-Step Guide for Beginners*, London: Sage Publications.
- KVALE, S., (1996) *Interviews: An Introduction to Qualitative Research Interviewing*, London: Sage Publications.
- LAINE, L., (1989a) 'The 'Nature' of Woman – The 'Nature' of Man. The Effects of Gender Images on Organising Sports in Finland in the 1920s and 1930s', in RAIVIO, M., (ed.) *Proceedings of the Jyväskylä Congress on Movement and Sport in Women's Life*, (Vol. 1: Reports of Physical Culture and Health). Jyväskylä, Finland: Likes.
- LAINE, L., (1989b) 'In Search of a Physical Culture for Women. Elli Bjorksten and Women's Gymnastics', *Scandinavian Journal of Sport Sciences*, Vol. 11 [pp. 15-20].
- LAINE, L., (1996) 'How to Cross Borders – Women in Sports Organisations in the Nordic Countries', in NEVALA, A., (ed.) *The Olympic Movement and Women's Physical Culture, both 100 Years of Age*, Kitee: Suomen Urheiluhistoriallinen Seura.
- LAMKE, L. K., (1982) 'The Impact of Sex-Role Orientation on Self-esteem in Early Adolescence', *Child Development*, Vol. 53 [pp.1530-1535].
- LASSWELL, H., (1902 – 1978) 'Biography', Available at <http://www.math.cc.utexas.edu/coc/journalism/SOURCE/j363/lasswell.html> accessed 05/02/2006.
- LAUREN, J., (In Print) *'Androgyny, Expressiveness, and Instrumentality: Links between Mental Health and Gender-related Self-report Styles and Behaviour Under Situational Expectations'* (PhD. Proposal) St. Louis: University of Missouri.
- LEE, A. G. and SCHEURER, V. (1983) 'Psychological Androgyny and Aspects of Self-image in Women and Men', *Sex Roles*, Vol. 9 [pp.289-306].
- LENNEY, E., (1979) 'Androgyny: Some Audacious Assertions Towards its Coming of Age' *Sex Roles*, Vol. 5 no. 6 [pp.313-332].
- LENSKYI, H., (1986) *Out of Bounds: Women, Sport and Sexuality*, Toronto: The Women's Press.
- LENSKYI, H., (1994) 'Sexuality and Femininity in Sport Contexts: Issues and Alternatives', *Journal of Sport and Social Issues*, 18 [pp. 356-376]

- LEWIS-BECK, M., S. (1994) *International Handbooks of Qualitative Applications in the Social Sciences*, London: Sage Publications.
- LINDEMAN, R., (2004) *'Ideal Hurdling'*, Presentation for the ITFCA Athens 2004.
- LIPPA, R., and BEAUVAIS, C. (1983) 'Gender Jeopardy: The Effects of Gender, Assessed Femininity and Masculinity, and False Success/Failure Feedback on Performance in an Experimental Quiz Game.' *Journal of Personality and Social Psychology*, Vol. 44, [pp.344-353].
- LIRGG, C. D., GEORGE, T. R., CHASE, M. A., and FERGUSON, R. H., (1996) 'Impact of Conception of Ability and Sex-type of Task on Male and Female Self-efficacy' *Journal of Sport and Exercise Psychology*, 18 [pp.426-434].
- LOCKSLEY, A., and COLTEN, M., E. (1979) 'Psychological Androgyny: A Case of Mistaken Identity?' *Journal of Personality and Social Psychology*, Vol. 37 [pp.1017-1031].
- LOEHLIN, J., C. (1992) *Genes and Environment in Personality Development*, Newbury Park, CA: Sage.
- LOFLAND, J., (1971) *Analysing Social Settings*, Belmont, CA: Wadsworth.
- LOIZOS, P. (2000) 'Video, Film and Photographs as Research Documents', in BAUER, W. B., and GASKELL, G (eds.), *Qualitative Researching with Text, Image and Sound*. London: Sage Publication.
- LONG, B., C. (1989) 'Sex Role Orientation, Coping Strategies, and Self-Efficacy of Women in Traditional and Non-traditional Occupations' *Psychology of Women Quarterly*, Vol. 13. [pp.307-324].
- LONG, V. O., (1982) 'Ending the Perpetuation of Sex-role Stereotypes in our Schools: A Possible Consequence of Psychological Androgyny', *Psychology in the Schools*, Vol. 19 [pp.250-254].
- LORBER, J. (1993) 'Believing is Seeing: Biology as Ideology', *Gender and Society*, Vol. 7 no. 4 [pp.568-581].
- LOVALLO, D., and KAHNEMAN, D. (2003) 'Delusions of Success: How Optimism Undermines Executives' Decisions'. *Harvard Business Review*, July Issue, [pp.56-63].
- LUBINSKI, D. (1983) 'The Androgynous Dimension: A Comment on Stokes, Childs, and Fuehrer'. *Journal of Counselling Psychology*, Vol. 30, [pp.130-133].

- LUBINSKI, D., TELLEGEN, A., and BUTCHER, J. N. (1981) 'The Relationship Between Androgyny and Subjective Indicators of Emotional Well-being' *Journal of Personality and Social Psychology*, Vol. 40. [pp.722-730].
- LUBINSKI, D., TELLEGEN, A., and BUTCHER, J., N. (1983) 'Masculinity, Femininity, and Androgyny Viewed and Assessed as Distinct Concepts', *Journal of Personality and Social Psychology*, Vol. 44, [pp.428-439].
- MACCOBY, E. E., and JACKLIN, C. N., (1974) *The Psychology of Sex Differences*, Stanford, CA: Stanford University Press.
- MAGEE, B. (1974) *Popper*, London: Woburn Press.
- MAJOR, B., CARNEVALE, P. J. D., and DEAUX, K. (1981) 'A Different Perspective on Androgyny: Evaluations of Masculine and Feminine Personality Characteristics', *Journal of Personality and Social Psychology*, Vol. 41 [pp.988-1001].
- MALLON, B., (1996) '1952 – 1964 Wind Figures' in SAILER, S., and SEILER, S., (1996) 'The Fall and Rise of the "Gender Gap" in World Class Running' (Draft) Available at www.uta.fi/~csmipe/sport accessed 12/05/2005.
- MARECEK, J. (1979) 'Social Change, Positive Mental Health, and Psychological Androgyny', *Psychology of Women Quarterly*, Vol. 40 [pp.323-329].
- MARGOLIS, Z. (2007) 'Buying into Oppression', available at http://commentisfree.guardian.co.uk/zoe_margolis/2007/09/buying_into_oppression.html accessed 5th April 2008.
- MARSH, H. W., and MYERS, M. (1986) 'Masculinity, Femininity, and Androgyny: A Methodological and Theoretical Critique' *Sex Roles*, Vol. 14, no. 7/8 [pp.397-430].
- MARSH, H., W. (1987) 'Masculinity, Femininity, and Androgyny: Their Relations with Multiple Dimensions of Self-concept' *Multivariate Behavioural Research*, Vol. 22 [pp.91-118].
- MARSHALL, S. J., and WIJTING, J. P., (1980) 'Relationships of Achievement Motivation and Sex-role Identity to College Women's Career Orientation', *Journal of Vocational Behaviour*, Vol. 16 [pp.299-311].
- MARTENS, M. P., and WEBBER, S. N., (2002) 'Psychometric Properties of the Sport Motivation Scale: An Evaluation With College Varsity Athletes From the U.S.', *Journal of Sport and Exercise Psychology*, Vol. 24 [pp. 254-270].

- MARTIN, D., (1996) 'Introduction to Research' *Distance Education in Research Methodology*, Birmingham: University of Birmingham.
- MARTINEAU, H. (1995) *How to Observe Morals and Manners*. New Brunswick, NJ: Transaction Publishers.
- MARTINS-CRANE, M. D.L., BEYERLEIN, M. M., and JOHNSON, D. A., (1995) 'Adjusting Models of Gender and Work to New Work Environments', *Journal of Social Behaviour and Personality*, Vol. 10 [pp.27-50].
- MARTIN, B. A., and MARTIN, J. H. (1995) 'Comparing Perceived Sex Role Orientations of the Ideal Male and Female Athlete to the Ideal Male and Female Person', *Journal of Sport Behaviour*. Vol. 18, [pp.1-5].
- MARWIT, S. J. (1981) 'Assessment of Sex-role Stereotyping among Male and Female Psychologist Practitioners', *Journal of Personality Assessment*. Vol. 45, [pp.593-599].
- MASSEY, A., (1996) 'Using the Literature' *The Qualitative Report*, Vol. 2, no. 2.
- MATHIEU, J. E., MARTINEAU, J. W., and TANNENBAUM, S. I., (1993) 'Individual and Situational Influences on the Development of Self-efficacy: Implications for Training Effectiveness', *Personnel and Psychology*, 46 [pp. 125-147].
- MATTHEWS, P., (2002) *National Union of Track Statisticians*, British (UK).
- MAUGHAN, R. J., (2000) *Nutrition in Sport*, Oxford: Blackwell Science Ltd.
- MAUGHAN, R. J., HARMON, M., LEIPER, J. B., SALE, D., and DELMAN, A., (1986) 'Endurance Capacity of Untrained males and Females in Isometric and Dynamic Muscular Contractions', *European Journal of Applied Physiology*, Vol. 55 [pp.2850-2856].
- MAY, T., (1997) *Social Research: Issues, Methods and Processes*. Buckingham: OUP.
- MAY, T., (2001) *Social Research: Issues, Methods and Processes*. (3rd ed.), Buckingham: Open University Press.
- MAYKUT, P., and MOREHOUSE, R. (1998) *Beginning Qualitative Research: A Philosophic and Practical Guide*, London: The Falmer Press.
- MAYRING, P., (2000) 'Qualitative Content Analysis', Available at <http://qualitative-research.net/fqs/fqs-e/2-00inhalt-e.htm> accessed 28/01/06.
- McALONAN, E. (2006) Personal Communication [E-mail]. Researcher at IPC Media. June 2006.

- McCELLAND, and ATKINSON'S (1960) 'Achievement Motivation' in KREMER, J., SHEEHY, N., REILLY, J., TREW, K., and MULDOON, O., *Applying Social Psychology*, New York: Palgrave MacMillan.
- McCLELLAND, D., C. (1951) *Personality*, New York: Dryden.
- McCRACKEN, E. (1993) *Decoding Women's Magazines From Mademoiselle to Ms*, London: MacMillan Press Ltd.
- McCRAE, R., R. and COSTA, P., T. (1990) *Personality on Adulthood*, New York: Guildford.
- McKEONE, D., (1995) 'Measuring Your Media Profile', *A General Introduction to Media Analysis and PR Evaluation for the Communications Industry*, London: Gower Press.
- McLAUGHLIN, E., (1991) "Oppositional poverty: the quantitative/qualitative divide and other dichotomies", *Sociological Review*. Vol.39 [292-308]
- McGARRY, N., and CULJAK, G. (2008) 'A Qualitative Study of Physicians, Surgeons, Nurses, Clinicians, and Administrators Perception of Training to Learn Mandated Healthcare Informatics Tool Conducted at DC Veterans Affair Hospital'. Hawaii International Conference on System Sciences, Proceedings of the 41st Annual Vol. 1, no. 1, 7-10 [pp:239-239]
- McQUEEN, R., and KNUSSEN, C., (2002) *Research Methods for Social Sciences: An Introduction*, Harlow: Pearson Education Limited.
- MEDAWAR, P. B. (1972) *The Hope of Progress*, London: Methuen.
- MERTEN, K. (1995). *Inhaltsanalyse*, 2nd edn. Opladen: Westdeutscher.
- MESSNER, M. A., (1992) *Power at Play: Sports and the Problem of Masculinity*, Boston: Beacon Press.
- MILES, A. B., and HUBERMAN, A. M., (1984) *Qualitative Data Analysis: A Sourcebook of New Methods*. London: Sage Publications.
- MILLER, A. E. J., MacDOUGALL, J. D., TARNOPOLSKY, M. A., and SALE, D. G., (1993) 'Gender Differences in Strength and Muscle Fibre Characteristics', *European Journal of Applied Physiology*, Vol. 66 [pp.254-262].
- MILLS, C. J., and BOHANNON, W. E. (1983) 'Personality, Sex-role Orientation, and Psychological Health in Stereotypically Masculine Groups of Males', *Sex Roles*, Vol. 9 [pp.1161-1169].

- MINTEL (2002) 'Leisurely Britons' UK Available at <http://reports.mintel.com> accessed 11/05/2005.
- MISCHEL, W., (1968) *Personality and Assessment*, New York: Wiley.
- MISCHEL, W. (1970) 'Sex-typing and Socialisation'. In MUSSEN, P. E. (Ed.), Carmichael's *Manual of Child Psychology*, Vol. 2, 3rd ed. New York: Wiley.
- MITCHELL, V. (1996) 'Assessing the Reliability and Validity of Questionnaires: an Empirical Example', *Journal of Applied Management Studies*, Vol. 5, No. 2 [pp.199-207].
- MODLESKI, T. (1984) *Loving With a Vengeance: Mass-produce Fantasies for Women*. New York and London: Methuen.
- MONEY, J., and TUCKER, P. (1975) *Sexual Signatures*, Boston: Little, Brown and Company.
- MORELAND, J. R., HARREN, V. A., KRIMSKY-MONTAGUE, E., and TINSLEY, H. E. A., (1979) 'Sex Role Self-concept and Career Decision Making', *Journal of Counselling Psychology*, Vol. 26 [pp.329-336].
- MORGAN, K., (1991) 'Women and the Knife: Cosmetic Surgery and the Colonisation of Women's Bodies', *Hypatia*, Vol. 6 [pp. 25-53].
- MORGAN, K., P. (1982) 'Androgyny: A Conceptual Critique' *Social Theory and Practice*, Vol.8 no. 3 [pp.245-283].
- MORRIS, D. (1994) 'Computerised Content Analysis in Management Research: A Demonstration of Advantages and Limitations', *Journal of Management*, Vol. 20 No. 4, [pp.903-031].
- MORRIS, C. (1999) *Quantitative Approaches in Business Studies* (5th ed.), Harlow: Financial Times Prentice Hall.
- MORRIS, J., (1974) 'Gender and Sexuality' in A. GIDDENS, (1977) *Sociology*, Cambridge: Polity Press.
- MORSE, J., M. (1994) *Critical Issues in Qualitative Research Methods*, London: Sage Publications.
- MOTOWIDLO, S. J., (1982) 'Sex Role Orientation and Behaviour in a Work Setting', *Journal of Personality and Social Psychology*, Vol. 42 [pp.935-945].
- MOULY, G. J. (1978) *Educational Research: The Art and Science of Investigation*, Boston: Allyn and Bacon.

- MURRAY, H., A. (1938) *Explorations in Personality*, New York: Oxford University Press.
- MURRAY, A. E. (2000) 'A Comparison of Athletic Identity, Gender Role Orientation, and Drinking Behaviour in Women from the United States and Australia', Paper Submitted to TAYLOR, M. J. Department of Psychology, University Of Wisconsin-La Crosse.
- MUSSEN, P. H. (1962) 'Long-term Consequents of Masculinity and Interests in Adolescence', *Journal of Consulting Psychology*, Vol. 26 [pp.435-440].
- MYERS, A. M., and LIPS, H. M. (1978) 'Participation in Competitive Amateur Sports as a Function of Psychological Androgyny', *Sex Roles*, Vol. 4 [pp.571-578].
- NAGEL, T., (1974) "What is it like to be a bat?" *Philosophical Review*. Vol. 83 [354-450]
- NAU, D., (1995) "Mixing methodologies; can bimodal research be a viable post-positivist tool?" *The Qualitative Report*. Vol. 2 (3) <http://www.novaedu/ssss/QR/QR2-3/nau.html>
- NEBEL, E., C. III, (1991) *Managing Hotels Effectively: Lessons from Outstanding General Managers*, New York: Van Nostrand Reinhold.
- NEBEL, E., C. III, and STEARNS, G., K. (1977) 'Leadership in the Hospitality Industry', *Cornell H.R.A. Quarterly*, November, Vol. 18 (3) [pp.69-76].
- NELSON, M., A. (2001) The Definition of Success <http://business.uhhp.com/articles/marysel07242001.html> accessed 08/10/2004.
- NETTLES, E. J., and LOEVINGER, J. (1983) 'Sex Role Expectations and Ego Level in Relation to Problem Marriages', *Journal of Personality and Social Psychology*, Vol. 45 [pp.676-687].
- NEUENDORF, K., A. (2002) *The Content Analysis Guidebook*, Thousand Oaks, CA: Sage Publications.
- NICHOLAS, C., (2000) 'Sprinting' in MAUGHAN, J., R. (ed.), *Nutrition in Sport*, Oxford: Blackwell Science Ltd. [pp.535-549].
- NICHOLSON, S. I. and ANTILL, J. K. (1981) 'Personal Problems of Adolescents and their Relationship to Peer Acceptance and Sex-role identity', *Journal of Youth and Adolescence*, Vol. 10 [pp.309-325].
- NIDIFFER, R. M., and REMBISZ, R. S., (1996) 'Competing Against the World: What Business can Learn from Sport' *The Sport Psychologist*, Vol. 4. [pp.20-47]
- NUNNALLY, J. (1978) *Psychometric Theory*, Mc-Graw Hill: New York, USA.

- OBER, S., and ZHAO, J. J., DAVIS, R., and ALEXANDER, M. W. (1999) 'Telling it like it is: The use of Certainty in Public Business Discourse', *The Journal of Business Communication*, Vol. 36 No. 3 [pp.280-300].
- OGLESBY, C. (1998) *Encyclopedia of Women and Sport in America*. Phoenix: Oryx Press.
- OGUNYEMI, C., O. (1993) 'Womanism: The Dynamics of the Contemporary Black Female Novel in English', in CLACK, VeVe A., JOERES, R-E, B., and SPRENGNETH, M., (eds.) *Revising the Word and the World: Essays in Feminist Literary Criticism*. Chicago: University of Chicago Press.
- OLDS, L. (1981) *Fully Human*. Englewood Cliffs, New Jersey: Prentice Hall.
- OLDS, D. E. and SHAVER, P. (1980) 'Masculinity, Femininity, Academic Performance, and Health: Further Evidence Concerning the Androgyny Controversy', *Journal of Personality*, Vol. 48, [pp.323-341].
- OLIVARES, F. (1991) 'Debate: Ways Men and Women Lead', *Harvard Business Review*, Vol. 69, no. 1 [p.151].
- OLOFSSON, E., (1989) *Have Women Chances in Sport? Swedish Sports Movement and Women in the 20th Century*, Kungälv: Umea Universitet.
- OPPENHEIM, A. N., (2000) *Questionnaire Design, Interviewing and Attitude Measurement*, (new ed.,) London: Continuum International.
- ORLOFSKY, J. L. (1977) 'Sex-role Orientation, Identity Formation and Self-esteem in College men and Women', *Sex Roles*, Vol. 3 [pp.561-575].
- ORLOFSKY, J. L., and O'HERON, C. A. (1987) 'Stereotypic and Non-stereotypic Sex-Role Trait and Behaviour Orientations: Implications for Personal Adjustment' *Journal of Personality and Social Psychology*, Vol. 52 [pp.1034-1042].
- ORLOFSKY, J. L., ASLIN, A. L., and GINSBURG, S. D. (1977) 'Differential Effectiveness of two Classifications Procedures on the Bem Sex Role Inventory', *Journal of Personality Assessment*, Vol. 41 [pp.414-416].
- OXFORD ENGLISH DICTIONARY (2005).
- PAGANO, M. (2008) 'Sexual Revolution, Sexual Exploitation, and Sexual Difference the 'Jiggly' terrain of 1970s TV' *Jump Cut: A Review of Contemporary Media* *Jump Cut*, No. 50, [pp.32]

- PAISLEY, W., J. (1969) 'Studying Style as Deviation From Encoding Norms', in GERBNER, G., HOLSTI, O., R. KRIPPENDORF, K., PAISLEY, W., J. and STONE, P., J. (eds.), *The Analysis of Communication Contents: Developments in Scientific Theories and Computer Techniques*, New York: Wiley.
- PARKER, D., (2002) 'Mind Over Matter', Available at www.kilbarchanaac.org.uk/parker_mind_over_matter_201022.htm accessed 11/05/2005.
- PARSONS, T., and BALES, R. F. (eds.). (1955) *Family, Socialisation, and Interaction Process*, Glencoe, IL: Free Press
- PATTON, M. Q. (1980) *Qualitative Evaluation Method*, Newbury Park, CA: Sage Publications.
- PATTON, M. Q., (1987) *How to use Qualitative Methods in Evaluation*, California: Sage Publications.
- PATTON, M., Q. (2002) *Qualitative Research and Education Methods* (3rd ed.), Thousand Oaks, CA: Sage Publications.
- PEARSON, J., C. (1980) 'Sex Roles and Self-disclosure' *Psychological Reports*, Vol. 47 [pp.640].
- PEDHAZUR, E. J., and TETENBAUM, T. J. (1979) 'Bem's Sex Role Inventory: A Theoretical and Methodological Critique' *Journal of Personality and Social Psychology*, Vol. 37 [pp.996-1016].
- PERVIN, L., A. (1978) 'Theoretical Approaches to the Analysis of Individual-Environment Interaction. In L.A. Pervin and M. Lewis (Eds.) *Perspectives in Interactional Psychology*, [pp. 67-85] New York: Plenum.
- PERVIN, L., A. (1994) 'Personality Stability, Personality Change and the Question of Process'. In T. Heatherton, and J., Weinberger (Eds.) *Can Personality Change?* [pp. 315-330] Washington, DC: American Psychological Association.
- PETERSON, D., R. (1968) *The Clinical Study of Social Behaviour*, New York: Appleton-Century-Crofts.
- PEYTON, C., and PFISTER, G., (eds) (1989) *Women in Sport in Europe*, Hamburg: Czwalina.

- PHILIPS, D. C., (1993) 'Subjectivity and Objectivity: An Objective Enquiry', in HAMMERSLEY, M., (ed.) *Educational Research: Current Issues*, Milton Keynes: Open University Press.
- PHILLIPS, E., B. (1978) 'Magazine Heroines: Is Ms. Just Another Member of the Family Circle?', in TUCHMAN, KAPLAN, DANIELS and BENET (eds.) *Heart and Home*.
- PIEL, E. R., (1977) '*Sex and Careers: Relationships between Sex Typing and Differences on Career-related Variables for Men and Women*', Unpublished Doctoral Dissertation, University of Iowa.
- PINKER, S. (2002) *The Blank Slate: The Modern Denial of Human Nature* London: Penguin.
- PIRINEN, R., (1997) 'Catching up With Men? Finnish Newspaper Coverage of Women's Entry into Traditionally Male Sports' *International Review for the Sociology of Sport*, Vol. 32(3) [pp.239-249].
- PIRINEN, R. (1997b) 'The Construction of Women's Positions in Sport: A Textual Analysis of Articles on Female Athletes in Finnish Women's Magazines', *Sociology of Sport Journal*, Vol. 14, [pp.290-301].
- PLECK, J., H. (1975) 'Masculinity-Femininity: Current and Alternative Paradigms' *Sex Roles*, Vol. 1 [pp.161-178].
- PLOMIN, R., CHIPEUR, H., M. and LOEHLIN, J., C. (1990) 'Behavioural Genetics and Personality'. In L.A. Pervin (Ed.) *Handbook of Personality: Theory and Research*, [pp. 225-234] New York: Guildford.
- POLKINGHORNE, D., E. (1983) *Methodology for the Human Sciences*, Albany: SUNY Press.
- POPPER, K., (1959) *The logic of Scientific Discovery*. London: Hutchinson and Co.
- POPPER, K., (1963) *Conjectures and Refutations: The Growth of Scientific Knowledge*. London: Routledge Kegan Paul.
- POPPER, K., (1968) *The Logic of Scientific Discovery*, London: Hutchinson and Co.
- PORTER, N., GEIS, F. L., COOPER, E., and NEWMAN, E. (1985) 'Androgyny and Leadership in Mixed-sex Groups', *Journal of Personality and Social Psychology*, Vol. 49 [pp.808-823].

- POSTOW, B. C., (1980) 'Women and Masculine Sports: Androgyny Qualified' *Journal of the Philosophy of Sport*, The University of Western Ontario: Canada.
- POTTS, D., (1996) 'How Much Faster Can We Run?' in STAFFORD, I., (ed.), *The Sunday Express*, August 1996 [pp. 5-10].
- POWELL, G. N., and BUTTERFIELD, D. A. (1979) 'The 'Good Manager': Masculine or Androgynous?' *Academy of Management Journal*, Vol. 22 [pp.395-403].
- POWELL, G. N., and BUTTERFIELD, D. A. (1981) 'A Note on Sex-role Identity Effects on Managerial Aspirations', *Journal of Occupational Psychology*, Vol. 54 [pp.299-301].
- POWELL, G. N., and BUTTERFIELD, D. A. (1989) 'The 'Good Manager': Did Androgyny fare Better in the 1980s?' *Group and Organisation Studies*, Vol. 14 [pp.216-233].
- PRIEST, S., (1996) *Doing Media Research an Introduction*. London: Sage Publications.
- PRIOR, L. (1997). 'Following in Foucault's footsteps: Text and Context in Qualitative Research', in SILVERMAN, D. (Ed.), *Qualitative Research: Theory, Method and Practice*. Thousand Oaks, CA: Sage Publishers.
- PROCTOR, S. (1998) 'Linking Philosophy and Method in the Research Process: The Case for Realism'. *Nurse Researcher*. Vol. 5, No. 4, [pp. 73-90].
- PUNCH, K. F. (1998) *Introduction to Social Research: Quantitative and Qualitative Approaches*, London: Sage Publications.
- PURSELL, S., BANIKIOTES, P. G., and SEBASTIAN, R. J. (1981) 'Androgyny and the Perception of Marital Roles', *Sex Roles*, Vol. 7 [pp.201-215].
- PYKE, S., W. (1980) 'Androgyny: A Dead End or Promise?' in *Sex Roles: Origins, Influences, and Implications for Women*, Montreal: Eden Press [pp.20-32].
- PYKE, S., W. (1985) 'Androgyny: An Integration' *International Journal of Women's Studies*, Vol. 8 [pp.529-539].
- RABINOWITZ, C., and WESEEN, S., (1997) "Elucidating epistemological impasses: re-viewing the qualitative/quantitative debates in psychology. (Transforming psychology: interpretative and participatory research methods)", *Journal of Social Issues*. Vol. 53 (4) [605-26]
- RADFORD, P., (1996) 'How Much Faster Can We Run?' in STAFFORD, I., (ed.), *The Sunday Express*, August 1996 [pp. 5-10].

- RAO, et al, (1982) in RITTER, D. (2004) 'Gender Role Orientation and Performance on Stereotypically Feminine and Masculine Cognitive Traits', *Sex Roles*, Vol. 50, no.7/8 [pp.583-591].
- RAPHAEL, F. (1998) *Popper*, London: Phoenix Publishing.
- READER'S DIGEST (1983) *Almanac and Yearbook*, Pleasanton, New York: Reader's Digest Association [pp.474-476].
- REBECCA, M., HEFNER, R., and OLESHANSKY, B., (1976) 'A Model of Sex-role Transcendence', *Journal of Social Issues*, Vol. 32 [pp.197-206].
- REINHARZ, S. (1992) *Feminist Methods in Social Research*. New York: Oxford University Press.
- RICHARD, M. S., MERRIFIELD, P., and JACOBSON, S. (1979) *A Factor Analytic Study of the Bem Sex Role Inventory*. Paper presented at the annual meeting of the American Psychological Association, New York.
- RICHARDSON, J., T. E. (1996) *Handbook of Qualitative Research Methods – for Psychology and the Social Sciences*, Leicester: The British Psychological Society.
- REICHARDT, C, S., and COOK, T, D., (1979) "Beyond qualitative versus quantitative methods", (in, Cook, T, D., and Reichardt, C, S.) *Quantitative and Qualitative Methods in Evaluation Research*. Beverly Hills: Sage Publications.
- REICHARDT, C, S., and RALLIS, S, F., (1994) "The relationship between the qualitative and quantitative research traditions", (in, Reichardt, C, S., and Rallis, S, F.) *The Qualitative-Quantitative Debate: New Perspective*. San Francisco: Jossey-Bass. [5-12]
- RITCHIE, J., and LEWIS, J., (2003) *Qualitative Research Practice*, London: Sage Publications.
- ROBERTS, A., (2000) *The Androgynous Mentor: An Examination of Mentoring Behaviour Within an Educational Context*, (PhD. Research) Birmingham, Birmingham University.
- ROBERTS, C., W. (1997) *Text Analysis for the Social Sciences: Methods for Drawing Inferences from Texts and Transcripts*, Mahwah, New Jersey: Lawrence Erlbaum pub.
- ROBSON, C., (2002) *Real World Research* (2nd Ed.) Oxford: Blackwell.
- RORTY, R., (1979) *Philosophy and the Mirror of Nature*. Princeton: Princeton University Press.
- RORTY, R., (1982) *Consequences of Pragmatism (Essays: 1972-1980)*. Minneapolis: University of Minnesota Press.

- ROSENBERG, M., (1979) *Conceiving the Self*, New York: Basic Books.
- ROSSMAN, G., B. and RALLIS, S., (1998) *Learning in the Field – An Introduction to Qualitative Research*, London: Sage Publications.
- ROTHERAM, M. J., and WEINER, N. (1983) 'Androgyny, Stress, and Satisfaction: Dual-career and Traditional Relationships', *Sex Roles*, Vol. 9 [pp.151-158].
- ROWLAND, R., (1980) 'The Bem Sex-role Inventory and Its Measurement of Androgyny' *Australian Psychologist*, Vol. 12 [PP.83-88].
- ROWLAND, R. (1977) 'The Bem Sex-role Inventory', *Australian Psychologist*, Vol. 12, no. 1 [p.83-88].
- RUCH, L., O. (1984) 'Dimensionality of the Bem Sex-Role Inventory: A Multidimensional Analysis' *Sex Roles*, Vol. 10 [pp.99-117].
- RUIZ (2005) *Training* Available at <http://expertfootball.com/training/naturevsnurture.php>. Accessed 10th December 2007.
- SAILER, S., and SEILER, S., (1996) 'The Fall and Rise of the "Gender Gap" in World Class Running' (Draft) Available at www.uta.fi/~csmipe/sport accessed 12/05/2005.
- SANBORN, C, F., MARTIN, B, J., and WAGNER, W, W., (1982) 'Is Athletic Amenorrhea Specific to Runners?' *Am J Obstet Gynecol*, Vol. 143 [pp.862-865].
- SASSENATH, J., M. and YONGE, G., D. (1979) 'The Bem Sex-Role Inventory Re-examined' *Psychological Reports*, Vol. 45[pp.935-941]
- SAUNDERS, M., LEWIS, P., and THORNHILL, A., (2000) *Research Methods for Business Students*, (2nd ed.) London: Prentice Hall.
- SAUNDERS, M., LEWIS, P., and THORNHILL, A., (2003) *Research Methods for Business Students*, (3rd ed.) London: Prentice Hall.
- SCANDURA, T, A., and RAGINS B, R., (1993) 'The Effects of Sex and Gender Role Orientation on Mentorship in Male-Dominated Occupations' *Journal of Vocational Behaviour*, no. 43 [pp.251-265].
- SCHIFF, E., and KOOPMAN, E. S. (1978) 'The Relationship of Women's Sex-role Identity to Self-esteem and Ego Development', *Journal of Psychology*, Vol. 98 [pp.299-305].
- SCHNEIDER, D. (2005) *Qualitative Data and Acquisition Methods (E.g., Interviews and Observations)*. TECFA: University of Geneva

- SCHNEIDER-DEUKER and KOHLER (1988) in RITTER, D. (2004) 'Gender Role Orientation and Performance on Stereotypically Feminine and Masculine Cognitive Traits', *Sex Roles*, Vol. 50, no.7/8 [pp.583-591].
- SCHWARTZ, B., CUMMING, D. C., RIORDEN, F., et al, 'Exercise Associated Amenorrhea: A Distinct Entity?' *Am J Obstet Gynecol*, Vol. 141 [pp.662-665].
- SCOLLON, R. and SCOLLON, S. W. 2003. *Discourse in Places: Language in the Material World*. London and New York: Routledge.
- SCOTT, D., and USHER, R., (1996) *Understanding Educational Research*. London: Routledge
- SCRATON, S., and FLINTOFF, A., (2002) *Gender and Sport: A Reader*, London: Routledge.
- SCRIVEN, M., (1972) 'Objectivity and Subjectivity in Educational Research', in THOMAS, L. G., (ed.) *Philosophical Redirection of Educational Research: The Seventy-first Year Handbook of the National Society for the Study of Education*, Chicago: University of Chicago Press.
- SEDNEY, A., (1981) 'Comments on Median Split Procedures for Scoring Androgyny Measures' *Sex Roles*, Vol. 7 [pp.217-222].
- SEDNEY, A., (1989) 'Conceptual and Methodological Sources of Controversies about Androgyny' in UNGER, R. K., (eds.) *Representations: Social Constructions of Gender*, New York: Baywood Publishing Company Ltd.
- SEGAL, M., and RICHMAN, S. (1978) 'The BEM Sex-Role Inventory: A North-South Comparison', *Psychological Reports*, Vol. 43, [pp.183-186].
- SHANGOLD, M. M., (1994) 'Menstruation and Menstrual Disorders' cited in SHANGOLD, M. M., and MIRKIN, G., (eds.) *Women and Exercise: Physiology and Sports Medicine* (2nd ed.), Philadelphia: FA Davis Company, [pp.152-171].
- SHEIL, P., (1998) *Olympic Babylon*, Sydney: MacMillan.
- SHERMAN, J., A. (1976) 'Social Values, Femininity, and the Development of Female Competence' *Journal of Social Issues*, Vol. 32 [pp.181-195].
- SIEGAL, S., and CASTELLEN, Jr. N., J. (1988) *Nonparametric Statistics for the Behavioural Sciences*, (2nd ed.), Hillsdale, NJ: Lawrence Erlbaum.

- SILVERN, L. E., and RYAN, V. L., (1979) 'Self-rated Adjustment and Sex-typing on the Bem Sex-Role Inventory: Is Masculinity the Primary Predictor of Adjustment?' *Sex Roles*, Vol. 5, [pp.739-763].
- SILVERN L. E., and RYAN, V. L. (1983) 'A Re-examination of Masculine and Feminine Sex-role Ideals and Conflicts Among Ideals for the Man, Woman, and Person'. *Sex Roles*, Vol. 9, [pp.1223-1248].
- SIMRI, U., (1977) *A Historical Analysis of the Role of Women in the Modern Olympic Games* Netanya, Israel: Wingate Institute for Physical Education and Sport.
- SINGER, J., (1992) 'Closeness and Androgyny' in WILMER, H., A. Closeness in *Personal and Professional Relationships*, Boston: Shambhala Press.
- SKOVHOLT, T. M. (1978) 'Feminism and Men's Lives', *Counselling Psychologist*, Vol. 7 [pp.3-9].
- SMALL, A. C., ERDWINS, C., and GROSS, R. B. (1979) 'A Comparison of the Bem Sex-role Inventory and the Heilbrun Masculinity and Femininity Scales', *Journal of Personality Assessment*, Vol. 43 [pp.393-395].
- SMILER, A. P. (2004) 'Thirty Years after the Discovery of Gender: Psychological Concepts and Measures of Masculinity -1'. *Sex Roles: A Journal of Research*. [pp.1-18].
- SMITH, J. K., and HESHUSIUS, L., (1986) "Closing down the conversation: the end of the quantitative-qualitative debate amongst educational inquirers", *Educational Researcher*. Vol. 15, (1) [4-12]
- SOBLE, A., (1980) *The Political Epistemology of 'Masculine' and 'Feminine'*, Orleans: The University of New Orleans.
- SONNESSON, G. (1988a) *Methods and Models in Pictorial Semiotics*. Report 3 from the Semiotics Project. Lund: Institute of Art History (Mimeographed).
- SONNESSON, G. (1988b) *Rudimentos de una ret – rica de la Caricatura*. Contribution to the Third International Symposium of the Asociaci – n espaola de semi – tica. November.
- SONNESSON, G. (1989) *Pictorial Concepts. Inquiries into the Semiotic Heritage and its Relevance for the Analysis of the Visual World*. Lund: Aris/Lund University Press.
- SONNESSON, G. (1993) 'Pictorial Semiotics: The State of the Art at the Beginning of the Nineties', *Zeitschrift fur Semiotik*. Vol. 15, No. 1-2 [pp.131-164].

- SONNESSON, G. 2004. 'Pictorial semiotics. The Internet Semiotics Encyclopaedia'. Available at semiotic@semiotik.lu.se Accessed, August 12, 2006.
- SPENCE, J, T., (1991) 'Do the BSRI and the PAQ Measure the Same or Different Concepts?' *Psychology of Women Quarterly*, Vol. 15 [pp. 141-165].
- SPENCE, J, T., and BUCKNER, C., (1995) 'Masculinity and Femininity: Defining the Undefinable' in KALBFLEISCH, P, J., and CODY, M, J., [eds.] *Gender, Power and Communication in Human Relationships*, Hillsdale, NJ: Lawrence Erlbaum Associates
- SPENCE, J, T., HELMREICH, R, L., and STAPP, J. (1974) 'The Personal Attributes Questionnaire: A Measure of Sex Role Stereotypes and Masculinity – Femininity' *JSAS Catalogue of Selected Documents in Psychology*, Vol. 4, no. 43 (Ms no. 617).
- SPENCE, J, T., and HELMREICH, R, L., (1978) *Masculinity and Femininity: Their Psychological Dimensions, Correlates and Antecedents*, Austin, Texas: University of Texas Press.
- SPENCE, J, T., and HELMREICH, R, L., (1979a) 'Comparison of Masculine and Feminine Personality Attributes and Sex Role Attitudes Across Age Groups' *Development Psychology*, Vol. 15, [pp.583-587].
- SPENCE, J. T., and HELMREICH, R. L. (1979b) 'On Assessing Androgyny'. *Sex Roles*, Vol. 5, No. 6 [pp.721-738].
- SPENCE, J. T., and HELMREICH, R. L. (1979c) 'On Assessing 'Androgyny''. *Sex Roles*, Vol. 5, [pp.721-738].
- SPENCE, J, T., and HELMREICH, R, L., (1980) 'Masculine Instrumentality and Feminine Expressiveness: Their Relationship with Sex Role Attitudes and Behaviours' *Psychology of Women Quarterly*, no.5 [pp.147-163].
- SPENCE, J. T., HELMREICH, R., and STAPP, J. (1975) 'Ratings of Self and Peers on Sex Role Attributes and their Relation to Self-esteem and Conceptions of Masculinity and Femininity' *Journal of Personality and Social Psychology*, Vol. 32 [pp.29-39].
- ST MARTIN, L., and GAVEY, N., (1996) 'Women's Bodybuilding: Feminist Resistance and/or Femininity's Recuperation', *Body and Society*, Vol. 2 [pp.45-57].
- STAKE, J., (1997) 'Integrating Expressiveness and Instrumentality in Real-Life Settings: A New Perspective on the Benefits of Androgyny' *The Journal of Social and Clinical Psychology*, Vol. 16, no. 4 [pp.216-233].

- STAKE, J., (2000) 'When Situations Call for Instrumentality and Expressiveness: Resource Appraisal, Coping Strategy Choice, and Adjustment' *Sex Roles*, Vol. 42, no. 9/10 [pp.865-885].
- STAKE, J., (2003) Personal Communication [E-mail]. Professor at University of Missouri – St. Louis. April 2003.
- STAKE, J., ZAND, D., and SMALLEY, R., (1996) 'The Relationship of Instrumentality and Expressiveness to Self-Concept and Adjustment: A Social Context Perspective' *The Journal of Social and Clinical Psychology*, Vol. 15. No. 2 [pp. 167-190].
- STAKE, J., ZAND, D., and SMALLEY, R. (1996) 'The Relation of Instrumentality in Real-life Settings: A New Perspective on the Benefits of Androgyny'. *The Journal of Social and Clinical Psychology*, Vol. 16, no. 4, [pp.216-233].
- STANBURY, J. (2003) *Heroes and Villains: An Exploration of Press Handling Strategies by UK Adventure Tour Operators during Crisis*. MA ATM, Tourism Studies, Birmingham: The University of Birmingham Press.
- STEINMAN, A., and Fox, D., J. (1966) 'Male-Female Perceptions of the Female Role in the U.S.' *Journal of Psychology*, Vol. 32 [pp.29-39].
- STEINMULLER, P., (2004) 'Sports Performance can Improve with Attention to Nutrition', Available at www.montana.edu/nutrition/index.shtml accessed 28/05/2005.
- STEMLER, S., (2001) 'An Overview of Content Analysis', Available at <http://PAREonline.net/getvn.asp?v=7&n=17> accessed 28/01/2006.
- STEMPEL, G., H. (1952) 'Sample Size for Classifying Subject Matter in Dailies: Research in Brief', *Journalism Quarterly*, Vol. 29 [pp.333-334].
- STEWART, D. W., and KAMINS, M. A., (1993) *Secondary Research: Information Sources and Methods*, (2nd ed.,) London: Sage Publications.
- STOTT, M., (2004) *Is There a Relationship Between the Aeon of Post-Modernity and the Consumption of Heritage?* (Masters Research) Birmingham: Birmingham University.
- STRAHAN, R., F. (1975) 'Remarks on Bem's Measurement of Psychological Androgyny: Alternative Methods and a Supplementary Analysis' *Journal of Consulting and Clinical Psychology*, Vol. 43 [pp.503-506].

- STRAHAN, R. F. (1975) 'Remarks on Bem's Measurement of Psychological Androgyny: Alternative Methods and a Supplementary Analysis'. *Journal of Consulting and Clinical Psychology*, Vol. 43, [pp.568-571].
- SUGIHARA, Y., and KATSURADA, E. (2000) 'Gender Role Personality Traits in Japanese Culture', *Psychology of Women Quarterly*, Vol. 28 [pp.84-89].
- SWANN, J. (1999) 'Pursuing Truth: A Science of Education', in SWANN, J., and PRATT, J. (eds.) *Improving Education: Realist Approaches to Method and Research*, London: Cassell.
- SWANN, J., and PRATT, J. (1999) 'The Crisis of Method', in SWANN, J., and PRATT, J. (eds.) *Improving Education: Realist Approaches to Method and Research*, London: Cassell.
- SWIM, J. K., (1994) 'Perceived Versus Meta-Analytic Effect Sizes: An Assessment of the Accuracy of Gender Stereotypes', *Journal of Personality and Social Psychology*, Vol. 66 [pp.21-36].
- SYDSERFF, R., and WEETMAN, P. (2002) 'Developments in Content Analysis: A Transitivity Index and Scores', *Journal of Accounting, Auditing and Accountability*, Vol. 15 No. 2 [pp.523-545].
- SYMONDS, P., M. (1927) 'What is an Attitude? (abstract)' *Psychological Bulletin*, Vol. 24 [pp. 200-201]
- TAVŞANCIL, E. & A. E. ASLAN (2001) 'Content Analysis and Application Samples for Verbal (Oral), Written and Other Materials'. *Sözel, Yazılı ve Diğer Materyaller için İçerik Analizi ve Uygulama Örnekleri*. İstanbul: Epsilon Publication.
- TAYLOR, M, C., and HALL, J, A., (1982) 'Psychological Androgyny: Theories, Methods and Conclusions' *Psychological Bulletin*, no. 92 [pp.347-366].
- TELLEGEN, A., (1991) 'Personality Traits: Issues of Definition, Evidence and Assessment'. In D. Cicchetti and W. Grove (Eds.) *Thinking Clearly about Psychology: Essays in Honour of Paul Everett Meehl*, [pp.10-35] Minneapolis: University of Minnesota Press.
- TESCH, R., (1991) 'Computer Programmes that Assist in the Analysis of Qualitative Data: An Overview', *Qualitative Health Research*, Vol. 1, no. 3 [pp.309-325].
- THEBERGE, N. (1993) 'The Construction of Gender in Sport: Women, Coaching and the Naturalization of Difference', *Social Problems*. Vol. 49, [pp.301-313].

- TINSLEY, E. G., SULLIVAN-GUEST, S., and MCGUIRE, J., (1984) 'Feminine Sex Roles and Depression in Middle-Aged Women' *Sex Roles*, Vol. 11 [pp.25-32].
- TINSLEY, H. E. A., KASS, R. A., MORELAND, J. R., and HARREN, V. A., (1983) 'A Longitudinal Study of Female College Students' Occupational Decision Making', *Vocational Guidance Quarterly*, Vol. 32 [pp.89-102].
- TOMM, K. (1988) 'Interventive Interviewing: Part 3. Intending to ask Lineal, Circular, Strategic, or Reflexive Questions?' *Family Process*, Vol. 27 no. 1 [pp.1-13].
- TOOHEY, K., and VEAL, A. J., (2000) *The Olympic Games*, Oxon: CABI Publishing.
- TORRINGTON, D. (1991) *Management Face to Face*, London: Prentice Hall.
- TREBILCOT, J., (1977) 'Two Forms of Androgyny' *Journal of Social Philosophy*, Vol. VIII, no. 1
- TROW, M., (1957) "Comment on participant observation and interviewing", *Human Organisation*. Vol. 16 (3) [33].
- TUCHMAN, G. (1978) 'Introduction: The Symbolic Annihilation of Women by the Mass Media', in TUCHMAN, G., and KAPLAN DANIELS, A., and JAMES, B. (eds.) *Hearth and Home: Images of Women in the Mass Media*. New York: Oxford University Press.
- TUCKMAN, B. W. (1972) *Conducting Educational Research*, New York: Harcourt Brace Jovanovich.
- TULLOH, B., (2003) 'Diet and Performance: One Big Advantage of Being a Runner is that you can eat a lot Without Putting on Weight. The More you run, the more you can eat', Available at www.diet/performance/~brutul/sport accessed 28/05/2005.
- TVERSKY, A., and KAHNEMAN, D. (1973) 'Availability: A Heuristic for Judging Frequency and Probability'. *Cognitive Psychology*, Vol. 5, [pp.207-232].
- TYER, Z. E., and ERDWINS, C. J., (1979) 'Relationship of Sex Role to Male and Female Dominated Professions', *Psychological Reports*, Vol. 44 [pp.1134].
- TZURIEL, D. (1984) 'Sex Role Typing and Ego Identity in Israeli, Oriental, and Western Adolescents', *Journal of Personality and Social Psychology*, Vol. 46 [pp.440-457].
- UITS RESEARCHING COMPUTING, (2006) 'Students T-Test', *Review of Educational Research*. Vol. 45, [pp.43-57].

- UNIVERSITY OF LEICESTER, (2000) 'On-Line Statistics: Z-tests and T-tests'. Available at <http://www.le.ac.uk/biology/gat/virtualfc/Stats/ttest.html> accessed 31/05/2007.
- UP and RUNNING (2005) Personal Communication [Interview]. Leading Sportswear and Accessories. June 2005.
- USHER, R., (1996) 'A Critique of the Neglected Epistemological Assumptions of Educational Research' in SCOTT, D., and USHER, R., (eds.) *Understanding Educational Research*, London: Routledge.
- USSHER, J. M. (1997) *Fantasies of Femininity: Reframing the Boundaries of Sex*, London: Penguin Books.
- VAN MAANAN, J., (1983) (in, Easterby-Smith, M., Thorpe, R., and Lowe, A.) *Management Research: An Introduction*. London: Sage Publications.
- VAN ZOONEN, L. (1991) 'Feminist Perspectives on the Media', in CURRAN, J., and GUREVITCH, M. (eds.) *Mass Media and Society*, New York: Edward Arnold.
- VAN ZOONEN, L. (1994) *Feminist Media Studies*, London: Sage Publications.
- VANDEVER, J. (1977) 'Sex Typing and Androgyny: An Empirical Study', *Psychological Reports*, Vol. 40 [pp.602].
- VEAL, T., (1998) 'Leisure Studies, Pluralism and Social Democracy' *Leisure Studies*, Vol. 17, no.1 [pp.249-267].
- VERBAND, D. L., (1992) 'Rahmentrainingsplan Sprint' Available at www.cbc.ca/sports/iaaf/how/200m.html accessed 12/05/2005.
- VERI, M. J., (1999) 'Homophobic Discourse Surrounding the Female Athlete', *Quest* 51, [pp. 355-368].
- VETTERLING-BRAGGIN, M., (1982) *Femininity, Masculinity and Androgyny*, New Jersey: Rowman and Allanheld Pub.
- WADDELL, F. T., (1983) 'Factors Affecting Choice, Satisfaction, and Success in the Female Self-employed', *Journal of Vocational Behaviour*, Vol. 23 [pp.294-304].
- WALKER, J. C., and EVERS, C. W., (1984) "Towards a materialist pragmatist philosophy of education" *Educational Research Perspective*. Vol. 11 (1) [23-33]
- WALKER, R., (1985) *Applied Qualitative Research*. Aldershot: Gower.
- WALKER, R., (1998) *Kant*. London: Phoenix.

- WALKERDINE, V. (1984) 'Some Day My Prince will Come: Young Girls and the Preparation for Adolescent Sexuality', in McROBBIE and NAVA (eds.) *Gender and Generation*, [pp. 162-184].
- WAKEFIELD, J. A., SASEK, J., FRIEDMAN, A. F., and BOWDEN, J. D. (1976) 'Androgyny and Other Measures of Masculinity – Femininity', *Journal of Consulting and Clinical Psychology*, Vol. 44 [pp.766-770].
- WARD, S.A., and WHIPP, B.J. (1990) "Will Women Outperform Men in Olympic Running in the Twenty-First Century?" *Journal of Physiology*. [423:24].
- WARREN, M. A., (1980) 'Is Androgyny the Answer to Sexual Stereotyping?' cited in VETTERLING-BRAGGIN, M., (1982) *Femininity, Masculinity and Androgyny*, New Jersey: Rowman and Allanheld Pub.
- WASS, V., and WELLS, P. (1994) 'Research Methods in Action: An Introduction', in WASS, V. J., and WELLS, P. E. (eds.), *Principles and Practice in Business and Management Research*, Aldershot: Dartmouth, [pp.1-34].
- WEBER, R., P. (1985) *Basic Content Analysis*, Beverly Hills, CA: Sage Publications.
- WEIDEGGER, P., (1976) *Menstruation and Menopause: the Physiology and Psychology: the Myth and the Reality*, New York: Alfred A. Knopf Pub.
- WELCH, P., and COSTA, D. M., (1994) 'A Century of Olympic Competition', in D. M., COSTA and S. H., GUTHRIE (eds.) *Women and Sport: Interdisciplinary Perspectives*, Champaign, IL: Human Kinetics.
- WELCH, R. L., (1979) 'Androgyny and Derived Identity in Married Women with Varying Degrees of Non-traditional Role Involvement', *Psychology of Women Quarterly*, Vol. 3 [pp.308-315].
- WELCH, R. L., and HUSTON, A. C. (1982) 'Effects of Induced Success/Failure and Attributions on the Problem-Solving Behaviour of Psychologically Androgynous and Feminine Women', *Journal of Personality*, Vol. 50 [pp.81-97].
- WELLS, K. (1980) 'Gender-role Identity and Psychological Adjustment in Adolescence', *Journal of Youth and Adolescence*, Vol. 9, [pp.59-73].
- WELLS, C. L. (1985) *Women, Sport and Performance*, Champaign, Illinois: Human Kinetics Publishers.
- WEINSTEIN, N., D. (1980) 'Unrealistic Optimism about Future Life Events'. *Journal of Personality and Social Psychology*. Vol. 39 [pp.806-820].

- WERNER, P., and PERVIN, L., A. (1986) 'The Content of Personality Items' *Journal of Personality and Social Psychology*, Vol. 51 [pp.622-628].
- WESLEY, F., and WESLEY, C. (1977) *Sex-role Psychology*, New York: Human Sciences Press.
- WEST, (2001), 'The Future of Computer Content Analysis: Trends, Unexplored Lands, and Speculations', in WEST, M. D. (Eds.). *Theory, Method and Practice in Computer Content Analysis*, Westport, CT, and London: Ablex Publishing [pp.159-176].
- WHITEHEAD, S. M., (2002) *Men and Masculinities*, Cambridge: Polity Press.
- WHITLEY, B. E., Jr. (1983) 'Sex Role Orientation and Self-esteem: A Meta-Analytical Review' *Journal of Personality and Social Psychology*, Vol. 44, no. 4 [pp. 765-778].
- WHITLEY, B. E., Jr. (1984) 'Sex-role and Psychological Well-being: Two Meta-analysis', *Journal of Sex Roles*, Vol. 12 [pp.207-221].
- WHITLEY, B. E., (1985) 'Sex Role Orientation and Psychological Well-being: Two Meta-Analyses' *Sex Roles*, Vol. 12 [pp.207-225].
- WIGGINS, J. S., and HOLZMULLER, A. (1978) 'Psychological Androgyny and Interpersonal Behaviour', *Journal of Consulting and Clinical Psychology*, Vol. 46 [pp.40-52].
- WILLIAMS, S. W., and McCOLLERS, J. C., (1983) 'Personal Factors Related to Typicalness of Career and Success in Active Professional Women', *Psychology of Women Quarterly*, Vol. 7 [pp.343-357].
- WILLIAMS, J. M., and MILLER, D. M (1983) 'Sex-role Orientation and Athletic Administration', *Sex Roles*, Vol. 9 [pp.1137-1148].
- WILSON, F. R. and COOK, E. P. (1984) 'Concurrent Validity of Four Androgyny Instruments', *Sex Roles*, Vol. 11, [pp.813-837].
- WILSON, H., S. (1989) 'THE Craft of Qualitative Analysis', in WILSON, H., S. (ed.), *Research in Nursing*, (2nd ed.), Menlo Park, CA: Addison-Wesley [pp.394-428].
- WINTER, A., (1979) *They Made Today: A History of the Hundred Years of the Polytechnic Sports Clubs and Societies*, London.
- WISE, D., and STAKE, J. E., (2002) 'The Moderating Roles of Personal and Social Resources on the Relationship Between Dual Expectations (for Instrumentality and Expressiveness) and Well-being' *The Journal of Social Psychology*, Vol. 141 no. 1 [pp.109-119].

- WITMER, D. F., COLMAN, R. W., and KATZMAN, S. L., (1999) 'From Paper and Pen to Screen and Keyboard: Towards a Methodology for Survey Research on the Internet', in JONES, S., *Doing Internet Research*, Thousand Oaks, CA: Sage Publications.
- WITTGENSTEIN, L., (1953) *Philosophical Investigations*, (trans. And Ed. G.E.M. Anscombe and G. Von Wright). Oxford: Blackwell.
- WOLFE, L. K., and BETZ, N. E. (1981) 'Traditionally of Choice and Sex-role Identification as Moderators of the Congruence of Occupational Choice in College Women', *Journal of Vocational Behaviour*, Vol. 18 [pp.43-55].
- WOLEDGE, R., (1996) 'Fast Forward: The Changing Shape of Sprint Champions' in STAFFORD, I., (ed.), *The Sunday Express*, August 1996 [pp. 8-9].
- WOMEN'S SPORT FOUNDATION (1995) *Women and Sport: A Syllabus Guide for Teachers and Lecturers*, London: Women's Sports Foundation.
- WONG, P.T.P., Kettlewell, G., and SPROULE, C. F. (1985) 'On the Importance of being Masculine: Sex Role Attribution and Women's Career Development'. *Sex Roles*, Vol. 12, no. 7, [pp.757-770].
- WOOD, P. S., (1980) 'Sex Differences in Sports' *The New York Times Magazine*, May18, [pp.96].
- WOOD-JOHNSON, R. (2006) *Qualitative Research*. Available at: <http://www.qualres.org/homeconf-3807.html> Accessed 11th August 2006.
- WORELL, J. (1978) 'Sex Roles and Psychological Well-being: Perspectives on Methodology', *Journal of Consulting and Clinical Psychology*, Vol. 46 [pp.777-791].
- WORSFOLD, P., (1989a) 'A Personality Profile of the Hotel Manager', *International Journal of Hospitality Management*, Vol. 8 [pp.51-62].
- WORSFOLD, P., (1989b) 'Leadership and Managerial Effectiveness in the Hospitality Industry', *International Journal of Hospitality Management*, Vol. 8 [pp.145-155].
- WRIGHT, R., (1995) *The Moral Animal: Why We Are the Way We Are: The New Science of Evolutionary Psychology*, New York: Little, Brown and Company.
- WRIGHT, D., B. (1997) *Understanding Statistics: An Introduction for the Social Sciences*, London: Sage Publications.
- WYMER, N., (1949) *Sport in England*, London.

- YANICO, B. J. (1981) 'Sex-role Self-concept and Attitudes Related to Occupational Day-dreams and Future Fantasies of College Women', *Journal of Vocational Behaviour*, Vol. 19 [pp.290-301].
- YANICO, B. J. (1982) 'Androgyny and Occupational Sex-Stereotyping of College Students', *Psychological Reports*, Vol. 50 [pp.875-878].
- YANICO, B. J. (1985) 'BSRI Scores: Stability Over Four Years for College Women'. In KEYSER, D. J., and SWEETLAND, R. C. (Eds.), *Test Critique*, Vol. 3 [pp.51-57]. Kansas City, MO: Test Corporation of America.
- YANICO, B. J., and HARDIN, S. I., (1981) 'Sex-role Self-concept and Persistence in a Traditional Versus Non-traditional College Major for Women', *Journal of Vocational Behaviour*, Vol. 18 [pp.219-227].
- YANICO, B. J., HARDIN, S. I., and McLAUGHLIN, K. B. (1978) 'Androgyny and Traditional Versus Non-traditional Major Choices among College Freshmen', *Journal of Vocational Behaviour*, Vol. 12 [pp.261-269].
- YARNOLD, P. R., (1994) 'Comparing the Split-half Reliability of Androgyny and Sex-Typing Measures' *Australian Journal of Psychology*, Vol. 46, NO. 3 [PP.164-169].
- YOUNG, I. (1990) *Throwing like a Girl and Other Essays in Philosophy and Social Theory*. Bloomington and Indianapolis: Indiana University Press.
- YOUNG, K., and WHITE, P., (1995) 'Sport, Physical Danger and Injury: The Experiences of Elite Women Athletes', *Journal of Sport and Social Issues*, 19(1) [pp.45-61].
- YUTHAS, K., R. ROGERS, and J. DILLARD (2002) 'Communicative Action and Corporate Annual Reports'. *Journal of Business Ethics* Vol. 41 [pp.141-157].
- ZHANG, J., NORVILITIS, J. M., and SHENGHUA, J. (2001) 'Measuring Gender Orientation with the Bem Sex Role Inventory in Chinese Culture – Statistical Data Included', *Sex Roles: A Journal of Research*, Feb. [pp.2-7].
- ZIPF, G., K. (1949) *Human Behaviour and the Principle of Least-Effort*, Cambridge: Addison-Wesley.

APPENDIX 1.0:

BIBLIOGRAPHICAL ESSAY

The complete story of androgyny's background and concept has been collected in a few key sources: Cook, E. P., (1985) *Psychological Androgyny*, New York: Pergamon Press and Vetterling-Bruggin, M., (1982) *Femininity, Masculinity and Androgyny*, New Jersey: Rowman and Allanheld Pub. More recent discoveries can be found in Bem, S., L. (1993) *Lenses of Gender (Transforming the Debate on Sexual Inequality)*, New Haven: Yale University Press. See also, Stake, J., Zand, D., and Smalley, R., (1996) 'The Relationship of Instrumentality and Expressiveness to Self-Concept and Adjustment: A Social Context Perspective' *The Journal of Social and Clinical Psychology*, Vol. 15. No. 2, and Stake, J., Zand, D., and Smalley, R. (1996) 'The Relation of Instrumentality in Real-life Settings: A New Perspective on the Benefits of Androgyny'. *The Journal of Social and Clinical Psychology*, Vol. 16, no. 4. Wise, D., and Stake, J. E., (2002) 'The Moderating Roles of Personal and Social Resources on the Relationship Between Dual Expectations (for Instrumentality and Expressiveness) and Well-being' *The Journal of Social Psychology*, Vol. 141 no. 1 is also useful.

Any study of androgynous work begins with Constantinople's (1973) renowned 'Masculinity-Femininity: An Exception to a Famous Dictum' *Psychological Bulletin*, Vol. 80 no. 5. See, too, the multiple texts of Bem and associates: Bem, S. L., (1974) 'The Measurement of Psychological Androgyny' *Journal of Counselling and Clinical Psychology* Vol. 42; Bem, S. L., (1975) 'Sex Role Adaptability: One Consequence of Psychological Androgyny', *Journal of Personality and Social Psychology*, Vol. 31; Bem, S. L., Martyna, W., and Watson, C., (1976) 'Sex Typing and Androgyny: Further Exploration of the Expressive Domain' *Journal of Personality and Social Psychology*, Vol. 34; Bem, S., L. (1976) *Probing the Promise of Androgyny' in Beyond Sex-Role Stereotypes*, Boston: Little, Brown and Co. and Bem, S., L. (1977) 'On the Utility of Alternative Procedures for Assessing Psychological Androgyny' *Journal of Consulting and Clinical Psychology*, Vol. 45. As well as, Block, J. H. (1973) 'Conceptions of Sex Role: Some Cross-cultural and Longitudinal Perspectives', *American Psychologist*, Vol. 28 and Block, J., H. (1976) 'Issues. Problems, and Pitfalls in Assessing Sex Differences: A Critical Review of the Psychology of Sex

Differences' *Merrill-Palmer Quarterly*, Vol. 22, no. 4.

Relevant literatures about the bipolarity of androgyny and related discursive can be located through Pearson, J., C. (1980) 'Sex Roles and Self-disclosure' *Psychological Reports*, Vol. 47. As well as Pedhazur, E. J., and Tetenbaum, T. J. (1979) 'Bem's Sex Role Inventory: A Theoretical and Methodological Critique' *Journal of Personality and Social Psychology*, Vol. 37. Sassenrath, J., M. and Yonge, G., D. (1979) 'The Bem Sex-Role Inventory Re-examined' *Psychological Reports*, Vol. 45 is also recommend. For criticism of the scales and other methodological problems turn to Locksley, A., and Colten, M., E. (1979) 'Psychological Androgyny: A Case of Mistaken Identity?' *Journal of Personality and Social Psychology*, Vol. 37, also Morgan, K., P. (1982) 'Androgyny: A Conceptual Critique' *Social Theory and Practice*, Vol.8 no. 3, and Bem, S., L. (1979) 'Theory and Measurement of Androgyny: A Reply to the Pedhazur-Tetenbaum and Locksley-Colten Critiques' *Journal of Personality and Social Psychology*, Vol. 37.

On inventories and associated discussion in androgyny, see Bem, S. L., (1974) 'The Measurement of Psychological Androgyny' *Journal of Counselling and Clinical Psychology* Vol. 42 and Spence, J. T., Helmreich, R. L., and Stapp, J. (1974) 'The Personal Attributes Questionnaire: A Measure of Sex Role Stereotypes and Masculinity – Femininity' *JSAS Catalogue of Selected Documents in Psychology*, Vol. 4, no. 43 (Ms no. 617) which allows readers to compare the two inventories in the most accessible way. No less helpful is Spence, J. T., (1991) 'Do the BSRI and the PAQ Measure the Same or Different Concepts?' *Psychology of Women Quarterly*, Vol. 15. Other major sources also include: Lenney, E., (1979) 'Androgyny: Some Audacious Assertions Towards its Coming of Age' *Sex Roles*, Vol. 5 no. 6, and Pedhazur, E. J., and Tetenbaum, T. J. (1979) 'Bem's Sex Role Inventory: A Theoretical and Methodological Critique' *Journal of Personality and Social Psychology*, Vol. 37 critiques. Also consult Sedney's, A., (1981) 'Comments on Median Split Procedures for Scoring Androgyny Measures' *Sex Roles*, Vol. 7 influential text, and Frable, D., E., and Bem, S., L. (1985) 'If You are Gender Schematic, all Members of the Opposite Sex Look Alike', *Journal of Personality and Social Psychology*, Vol. 49., is also recommend.

For information on androgyny as an ideal for psychological adjustment see especially Bem, S. L., (1974) 'The Measurement of Psychological Androgyny' *Journal of Counselling and Clinical Psychology* Vol. 42 and Lubinski, D., Tellegen, A., and Butcher's, J. N. (1981) 'The Relationship Between Androgyny and Subjective Indicators of Emotional Well-being' *Journal of Personality and Social Psychology*, Vol. 40, influential work. Another important resource is Spence, J. T., Helmreich, R., and Stapp, J. (1975) 'Ratings of Self and Peers on Sex Role Attributes and their Relation to Self-esteem and Conceptions of Masculinity and Femininity' *Journal of Personality and Social Psychology*, Vol. 32. See too the rich collection of Kaplan, A. G. (1979) 'Clarifying the Concept of Androgyny: Implications for Therapy', *Psychology of Women Quarterly*, Vol. 3, and Whitley, B. E., Jr. (1984) 'Sex-role and Psychological Well-being: Two Meta-analysis', *Journal of Sex Roles*, Vol. 12. An excellent contemporary source is Stake, J., (2000) 'When Situations Call for Instrumentality and Expressiveness: Resource Appraisal, Coping Strategy Choice, and Adjustment' *Sex Roles*, Vol. 42, no. 9/10.

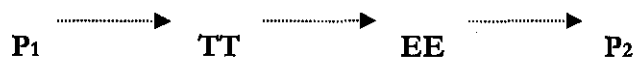
And for an account of androgyny's concentrated athletic reference, see Mills, C. J., and Bohannon, W. E. (1983) 'Personality, Sex-role Orientation, and Psychological Health in Stereotypically Masculine Groups of Males', *Sex Roles*, Vol. 9, and Myers, A. M., and Lips, H. M. (1978) 'Participation in Competitive Amateur Sports as a Function of Psychological Androgyny', *Sex Roles*, Vol. 4. An indispensable account of sport issues, androgyny and athleticism can be found in Postow, B. C., (1980) 'Women and Masculine Sports: Androgyny Qualified' *Journal of the Philosophy of Sport*, The University of Western Ontario: Canada. See also Spence, J. T., and Helmreich, R. L., (1978) *Masculinity and Femininity: Their Psychological Dimensions, Correlates and Antecedents*, Austin, Texas: University of Texas Press.

APPENDIX 1.1:**FALSIFICATION: INTRODUCED AND APPLIED**

It has been argued that falsification (see Popper, 1959; 1968) is a useful criterion for what should count as a theory. The criterion is that it must be possible in principle to falsify a theory. To do so Popper argued that any theory which purports to describe the nature of the external reality should, insofar as it is possible, be presented in a form whereby it may be subjected to the most rigorous criticism (see Raphael, 1998). In effect, we only need to give up the question of how to establish certainty, substituting and addressing in its place, "how can we best pursue truth?" (Swann, 1999:11). In this way, it must be possible to imagine some data which if found would falsify the theory. As Corson (1999:67) asserts "the idea is simple and quite radical: knowledge grows by a process of conjectures and refutations, by a method of trial and the elimination of error". This is why it is often pointed out that empirical knowledge develops by disproving its theories (Popper 1968; see also Magee, 1974). Although falsification is sound in principle, it is difficult to adopt in practice because, quite simply, the discovery of falsifying data can be an "uncomfortable truth" (Roberts, 2000:78). Such discomfort is best illustrated by Gilbert's (1993:24) claim that falsification is not a theory, but on the contrary a definition of "*theoretical suicide*". One of the problems Gilbert exclaims is that the search for falsifying observations is in principle never-ending. No matter how much data one collects that fits the theory; it is always possible that a falsifying instance might turn up next. The consequence is that there is an asymmetry about a researcher's confidence in theory: one can be quite sure that a theory is wrong if there are any data which falsify it, but one cannot be sure that a theory is right, because there may yet be some data which will disconfirm it (Gilbert, 1993). Of course, the solution to this dilemma is to make use of Popper's interrogatory 'under what conditions will you give up your theory?' (as cited in Raphael, 1998). In this way, we identify not only the theory but also what would falsify the theory.

All advances of knowledge and understanding, at every level, begin with a problem (Medawar, 1972; Swann and Pratt, 1999). The problem is then exposed to criticism to

find a solution. The creation of a 'probable' solution brings with it a new set of conjectures. These conjectures may subsequently be found to be flawed, then creating new problems. In the context of this research, then, this 'recipe' may be expressed as the schema:



If we apply this schema, P₁ represents the initial problem (are successful athletes more likely to be androgynous individuals?); TT represents the tentative theory (here to be expressed as an individual's ability to be a successful athlete will be enhanced to the extent that he or she is able to exhibit appropriate androgynous behaviour); EE represents the error elimination (what evidence is there to falsify TT?):

- (i) *Evidence that successful athletes are NOT displaying androgynous traits (EE) or*
- (ii) *Only ONE of the genders displayed androgynous traits (EE) or*
- (iii) *Athletes' rate psychological androgyny as NOT important (EE) will falsify the theory posited (TT) here.*

And, P₂ represents the new problem that may arise out of trying to solve the first (what if TT is confirmed? What if it is not?). The challenge therefore was to design the theoretical framework to discover and eliminate any mistaken ideas and modify and develop those, which are inadequate.

APPENDIX 1.2:

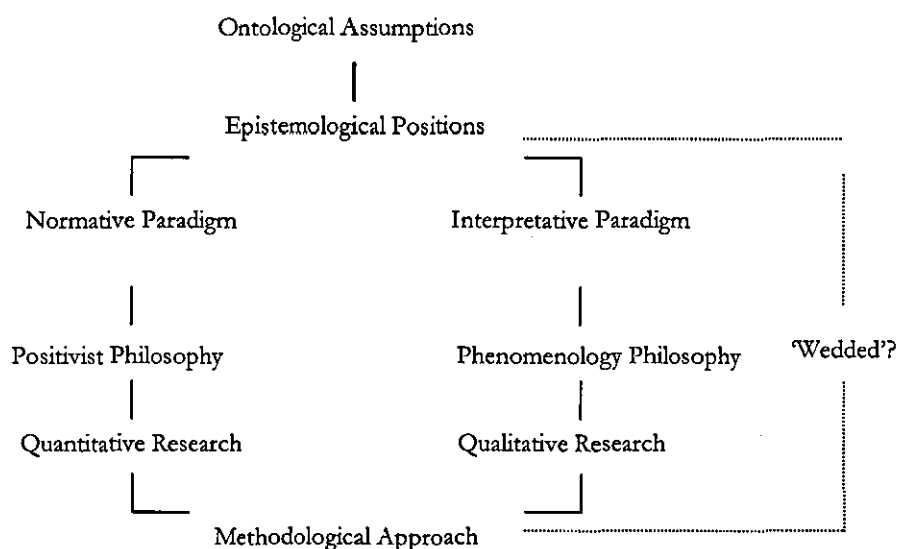
THE NATURE OF ENQUIRY

In psychological androgyny, as with the field of psychology and sport in general, the quantitative and qualitative methods of conceiving social reality, have laid the foundations for a more extended study of the two contrasting perspectives. The 'concern' say Burrell and Morgan (1979) is which is a more appropriate research methodology for that field. Each of the two perspectives on the study of human behaviour has profound implications for research: the choice of problem, the formulations of questions to be answered, methodological concerns, the kinds of data sought and their mode of treatment – all will be influenced or determined by the viewpoint held. The underlying theoretical and philosophical issues thus need to be addressed by identifying the strengths of both quantitative and qualitative research methodologies to gain a greater perspective. According to Hughes and Sharrock (1990) it is necessary for philosophical issues to be regarded as prerequisite in order that sound methodology for enquiry can be laid down in advance of the empirical research itself. Philosophical issues in this context relate to questions of epistemology, that is, "the nature, scope, and applicability of knowledge" (Walker and Evers, 1984:28) which, appropriates to the concept of psychological androgyny. To this end, the adoption of a particular epistemological foundation leads to the choice of a specific method on the grounds of its greater appropriateness given the nature of psychological enquiry and preceding philosophical position to what is, and should count as, valid knowledge (cf. Bryman, 1992; Douglas, 1976; Patton, 1980; Trow, 1957 and Walker, 1985).

The epistemological assumptions in these instances determine extreme positions on the issues of whether knowledge is something which can be acquired on the one hand, or is something which has to be personally experienced on the other (Burrell and Morgan, 1979). Thus, questions become framed as, is knowledge acquired or the result of personal experience? Bryman (1992) contends that these theoretical stances have influenced the character of both quantitative and qualitative research, an assertion supported by Firestone (1987) who states that quantitative research is based on a

'positivist' philosophy and qualitative research is rooted in a 'phenomenological' philosophy. But this is not to say that quantitative and qualitative researches are forever rooted to their original epistemological positions or are indeed antithetical (Bryman, 1992; Firestone, 1987). Instead, according to Bryman, quantitative and qualitative approaches to research can have, and do have, an independence from their epistemological origins. As techniques, each has its own strengths and weaknesses in the conduct of research. Indeed, it is these strengths and weaknesses that will lie behind the rationale for complementarity within this research design. This is to say the questions are *not* of 'which' method is best suited to psychological androgynous enquiry but to present the two perspectives in complementary light (Cohen and Manion, 1994).

Figure 1.9 RESEARCH PHILOSOPHIES: A FRAMEWORK



Personal Model (2003)

One of the difficulties however, in advocating the complementarity of the methods, derives from controversy surrounding the incommensurability of epistemological stances. The question is thus raised as to whether it is possible for epistemological positions to be commensurable: if they are not and method is determined by such a position, then 'mixing' methods will cause an incongruent approach. In other words,

does research on psychological androgyny lend itself to epistemological commensurability? For epistemological stances to be commensurable there will have to be some shared concepts and standards of justification, meaning, and truth: some epistemological criterion. But, if so, the next question is if a clear symmetry between epistemological positions and methodological approach is tenable. In addressing the apparent linking of philosophical issues with questions of research practice, the question of the appropriateness of a research method is also significant, for the method must properly fit the epistemological position in which the research is embedded. The substance of methodology would thus largely comprise a set of specific techniques and approaches to be used in research that fit the nature of knowledge. So then, are methods dependent upon epistemological and ontological positions? It would be premature, at the very least, to attempt to summon a response without firstly addressing the ontological and epistemological position this research on psychological androgyny is assuming and why. Secondly, the need to theorise the relationship between epistemological position and methodological approach makes explicit interpretation in itself, contentious. Thirdly, the very existence of a dichotomy between quantitative and qualitative research is by no means clear cut as regards the use of particular kinds and sources of information. Finally, given these issues, could both a quantitative and qualitative rapprochement to our data collation, analysis and interpretation of psychological androgyny be posited as a rationale for complementarity within a single research design?

In addressing these issues, an ontological and epistemological rationale for this research will precede a discussion on the concerns surrounding the affiliations between methodological approach and epistemological position, specific to the androgynous ideal. A discussion on the validity of the quantitative-versus-qualitative debate and related divides and indeed the very rationale of these divisions will inform the issue of methodological appropriateness for enquiry research on psychological androgyny within a sport setting. In the context of this kind of discussion, the question of a principled complementarity within a single research design will be facilitated. The contention is that the claim of legitimacy, let alone one of complementarity, has yet to be sustained (Smith and Heshusius, 1986).

This research recognises the diverse and complex issues that envelop any method of enquiry aimed at addressing issues such as justification, truth, and the accessibility of reality in the search for knowledge. The emphasis here is, to clarify assumption and claim for a congruency of ontology, epistemology and methodology, rather than attempt to resolve the perennial question of a 'suitable' for philosophy of research design. Indeed, derived from the problems addressed, the underpinning rationale for this research is that of congruency. This entails the acceptance that complementarity must be recognised in view of various distinct desiderata in research philosophy, not all of which may be met by any one single epistemological position. Here, perhaps, proof cannot be offered but it can reason for its inclusion. To be more specific, debate surrounding quantitative and qualitative methods focuses on whether there is a necessary connection between method-type and epistemology of the research. This research therefore on psychological androgyny begins with the ontological and epistemological assumptions that underpin this discussion, before justifying a rationale for complementarity of the methods, so as to support a claim for congruency.

An issue of ontology and epistemology:

The two approaches to the conduct of social research referred to represent distinctive ways of viewing research on psychological androgyny, and are constructed on correspondingly different ways of interpreting it. A rational approach is drawn between these conceptions of the socio-psychological world by examining the explicit and implicit assumptions underpinning them.

Assumptions of the ontological kind, where "ontology is the study of being, concerned with 'what is', with the nature of existence, with the structure of reality", relate to the very nature of the social phenomena being investigated (Crotty, 1998:7). Thus positing the question is social reality external to individuals – imposing itself upon the consciousness from without – or is it the product of individual consciousness? Hence, questions are raised as to whether reality is of an objective nature or the result of individual cognition? Is there a given reality out there in the world, or is it created by one's own mind? The realists' ontology contends that, objects have an independent

existence and are not dependent for it on the knower (Cohen and Mahon, 1994:6), and that such objects exist independently, outside of the mind. By contrast, an idealist ontological position argues that phenomena exist only in the sense that they are 'perceived' (Kemmerling, 1998). It would follow from these views that the concept of androgyny for the realists' is inherent in its nature, whereby the idealists' merely perceive the phenomena. The ontological assumptions for this thesis are grounded in Dennett's (1991:111) belief that there is "no one moment where an individual can pinpoint awareness of the contents of consciousness, and no single process that represents the appearance of the thought or sensation, or feeling". Nagel, (1974:355) considers that this puts "consciousness beyond the realm of scientific [a term denoted by Nagel to infer mathematical means] enquiry, and expositions acceptance of the introspective", essentially connected with the interpretative paradigm. The inference is that individuals may not have knowledge of the world independently of what is in their minds; that they may only know things as they appear as phenomena: as Kant asserted, individuals may only know the phenomena [as they appear] not the noumena [as they are] (Walker, 1998). So, for this research on psychological androgyny, the ontological assumption is that nature of reality is the product of an individual consciousness and constructed by social beings. Social reality is produced and reproduced by social beings to be an interpreted, subjective world. As Shakespeare's Hamlet observed: *Nothing is until I think it so* (Hibbard, 1987).

Epistemological assumptions concern the very basis of knowledge, its nature, how it may be acquired and how it may best be communicated to others. Epistemology is the study of "the nature of knowledge, its possibilities, scope and general basis" (Hamlyn, 1995:242). Burrell and Morgan (1979) ask whether it is possible to identify and communicate the nature of knowledge as being hard, real and capable of being transmitted in tangible form, or whether 'knowledge' is of a softer, more subjective, spiritual or even transcendental kind, based on experience and insight of a unique and essentially personal nature? The major conjecture here is whether these distinctions are truly antithetical, leading to different ways of knowing or forms of knowledge, that partition research so that research approaches turn out to be distinct epistemologically, with each having its own theories and rules of justification, meanings and truth. How

one aligns oneself in this particular debate profoundly affects how one will go about uncovering knowledge of social behaviour. The former view that knowledge is hard, objective, tangible and even statistical would align the researcher with the positivistic methods of the natural sciences and the latter view of a softer, more subjective kind would align the researcher with an anti-positivistic stance and within a so-called phenomenological variant. It would thus follow from what has been stated so far that research of psychological androgyny is governed by the conceptualisation of the research problem. But there is the empirical question as to how far epistemological issues in practice determine methods.

In its broadest sense, positivism is a rejection of the metaphysical world. It is a position that holds that the objective of knowledge is simply to describe the phenomena that individuals experience. The purpose of science is simply to abide to what as individuals can be observed and measured. For example, women, on average, are not so strong as men. Or, women are statistically slower than men over measured distances. Knowledge of anything beyond that, a positivist would hold, is impossible. The epistemological stance, here, is that knowledge of the social world is best served by assuming its 'objectivity' and 'value-free' position, and not by attempts of 'subjectivity' and 'workings of experience' methods aimed at discovering certainty in a pre-ordained world. Thus the domain of knowledge will involve an exploration of how the social world is experienced and interpreted by those associated in the world of scientific interactionism. In essence, research on psychological androgyny by way of scientific inscription.

The movement to an anti-positivist philosophy of science has occurred because of the existence of such doctrines. Anti-positivism is therefore derived from the humanities with an emphasis on holism and which requires an understanding of the social world which people inhabit. Its central tenet is that people are continually interpreting their world, their social situations, other people's behaviour and their own: it is about focusing upon behaviour as meaning. For example, there is, or has been, a view of women athletes that they are not only socially deviant but flying in the face of biological reality and predestination as well. It is not that the social world defies the

understanding of science, even though it is widely accepted that it is a nonempirical science, but that many of the things which are important in the social world are already understood given the relation between life and the corresponding social world, social concepts and rules, employment of language and interaction and so on. In a sense, one can accept that the social world is already interpreted: the epistemological position assumed must reflect this. For our purposes, research of psychological androgyny is thus socially ordered.

A question of paradigm:

With the advent of the anti-positivist era characterised by an acceptance of epistemological diversity, the question, then, if such divisions as identified exist, is whether the diversity must be oppositional, or can it be harmonious? Again, does research on psychological androgyny lend itself to epistemological commensurability? The epistemological nature of the discussion is reinforced by recourse to the term 'paradigm' – usually in a Kuhnian sense – to denote the two philosophical positions. There are then two paradigms: a normative paradigm that exhibits a preoccupation with the positivistic philosophy and an interpretative paradigm that manifests essentially anti-positivistic characteristics. For Kuhn (1970a) scientists predominantly exhibit a strong attachment to paradigm-specific epistemologies, in so far as paradigms are meant to be incommensurable. Underpinning Kuhn's paradigmatic philosophy is an acceptance that paradigms contain a 'constellation' of beliefs, cognition's, rules of order and techniques of procedure which induce distinct ways of seeing the same 'things', and the kind of phenomena with which a discipline deals, changes quite fundamentally. Accordingly, Kuhn persuasively argues that, while epistemological commensurability may be advocated, in practice epistemologies cannot simply be linked together unproblematically. And, in effect elicits research of psychological androgyny as epistemologically incommensurable.

In the context of this kind of discussion, the aim here is, firstly, not to use Kuhn's term facilely. Indeed, "in learning a paradigm the researcher acquires theory, methods, and standards together, usually in an inextricable mixture. Therefore when paradigms change, there are usually significant shifts in the criteria determining the legitimacy

both of problems and of proposed solutions” (Walker and Evers, 1984:32). Secondly, for the reasons delineated prior, there is a need to recognise the apparent, that it is implausible to alternate from one paradigm to another. At this point, this research departs from the assertion of May (1997:35) who claims that:

“Social researchers do not have to content themselves with one paradigm as Kuhn would suggest.”

This view tends to be flawed in its approach for congruency. It is an accepted opinion that a fundamental change may occur from one paradigm to another, but not on a regular basis. A researcher may reject a paradigm and take a standpoint within another; but not because it is more convenient to the research design, or because it is easier to switch paradigm than it is to defend congruency from within the paradigm(s). All that is argued is that the criteria of paradigmatic affinity should exclude the possibility of fluctuation between paradigms, in order to avoid ontological oscillation. By shifting ontological commitments as deemed convenient, the research is left bereft of any underpinning rationale for epistemology, methodology and interpretation. On what basis is knowledge then claimed? Although this may echo Feyerabend’s (1987) ‘anything goes’ approach or Trow’s (1957) epistemological ‘appropriateness’, it may also echo research manipulated to suit the research design. An ontology only constrains if assumptions are incongruent, or if justification of approach is not steadfast. Conversely, within a congruent approach, ontology informs, guides and allows a principled basis for research.

This research accepts Kuhn’s stance and denounces paradigmatic fluctuants in aegis of ontology forming the basis of paradigm. The implication is that contrasts then are often made between the two distinct paradigms: a normative paradigm and an interpretative paradigm, that is between the notion that the social world exists externally to people so that its properties can be measured objectively and the view that ‘reality’ is socially constructed, so that it can be understood only through the meanings that people place on it. The choice of a particular epistemological base leads to a preference for a particular method on the grounds of its greater appropriateness

given the preceding philosophical deliberations. Accordingly, the normative paradigm, with its realist-oriented tenets of positivism, has become commonly accepted with what Burrell and Morgan (1979) calls a 'nomothetic' or quantitative method of investigation. Alternatively, the interpretative paradigm, the idealist-oriented nexus of anti-positivism within the so-called phenomenological variant takes on what Burrell and Morgan termed an 'idiographic' or qualitative approach. A key observation here, is that if a quantitative method is affiliated to a realist paradigm and a qualitative method to an idealist paradigm – which many authors implicitly and explicitly claim (Firestone, 1987; Smith and Heshusius, 1986) – then the use of both methods would imply a 'switch' between such paradigms. As noted, paradigms are ways of seeing the same 'things' differently, or of seeing the world differently, and as already stated it is implausible to alternate from one paradigm to another. However, if an argument can be forwarded that method and epistemological assumptions are not inherently linked to either quantitative or qualitative methods, then both method types can be associated with the attributes of either the normative or interpretative paradigm (Reichardt and Cook, 1979); and, simultaneously not depart Kuhn's view, thus propounding the commensurability of psychological androgyny research on a methodological level at least. Thus, the ensuing argument about the rhetorical connection between method type and paradigm is advanced in terms of ontological and epistemological assumptions.

Quantitative versus qualitative:

A trend in the literature concerning the quantitative versus qualitative debate suggests that researchers may have differed in their positions on this issue, with qualitative researchers more likely, implicitly or explicitly, to subscribe to the notion that methods reflect paradigms or worldviews (Denzin and Lincoln, 1994; Guba, 1996; Rorty, 1982). More quantitatively oriented researchers occasionally acknowledged seeing qualitative work as reflecting a worldview, but they saw their own [quantitative] work as essentially neutral. Their belief that quantitative methods were more scientific was not experienced or expressed as a 'worldview' but as a fact (Rabinowitz and Weseen, 1997; Reichardt and Rallis, 1994). From this perspective it is not clear that the relationship between psychological androgyny's epistemological assumption and methodological

approach can be resolved by an appeal to essential definitions of quantitative and qualitative research. What is apparent from inspection of the literature is researchers have used and will continue to use these terms as proxies or 'placeholders' for a host of other terms with which they are correlated, like realist and idealist; subjective and objective; inductive and deductive; positivistic and anti-positivistic, among others. As Bryman (1984) has observed, this kind of dichotomous frame of reference has exaggerated what differences there are between quantitative and qualitative methods. Bryman's observation is by no means unique – Bavelas (1995:52) makes reference to the "misleading dividing line", whilst Hammersley (1996:173) concludes that the dichotomy reflects a "crude characterisation, and one that can often be misleading". Of course there can be no doubt that such 'binary oppositions' are entrenched in the core disciplines of social research – "even those who denounce such a dichotomous frame of reference nevertheless tend to end up reproducing and maintaining the divide itself and many find themselves swept along by the veritable tidal wave of dualities and oppositions available" (McLaughlin, 1991:295). Importantly, such contemptuous debate and exaggerated over-claim seems to have little, if any, recourse to how research of psychological androgyny ought to be accomplished.

From this perspective, Firestone (1987) has identified with two groups: the purists and the pragmatists. The purists believe that the two method types are incompatible because they are based on paradigms that make different assumptions about the world and what constitutes valid research. Thus, they claim that there is a logical relationship between the principles inherent in the paradigm and the methods chosen, and that epistemology informs method. The pragmatists conversely see a more instrumental relationship between paradigm and methods. To them, methods are more collections of techniques that are not inherently linked to either paradigmatic assumption. Hence, both method types can be associated with the attributes of a paradigm (Reichardt and Cook, 1979:16). These two positions are, of course, of considerable importance to distinguish the relevant realms of psychological androgyny discourse. Although in so doing, Bryman (1992:75) acknowledges that "one of the difficulties in representing the divergences between the two methodologies [reference by Bryman to the epistemological issues] derives from a tendency for philosophical issues and technical

issues to be treated simultaneously and occasionally to be confused". Given this prospect, could the former dictate the latter? In other words, is our methodological choice for androgynous enquiry dictated by our philosophical position?

It is apparent that there is some confusion over articulating a clear symmetry between epistemological positions and associated techniques of social research. Some of the confusion comes from the ambiguity of 'method as technique' and 'method as logic of justification'. This conceptualisation involves such basic questions as, 'what is the nature of social and psychological reality?' 'What is the relationship of the investigator to research on psychological androgyny?' And, 'how is truth to be defined?' In the context of this kind of discussion "the question of techniques of investigation is no longer whether A is 'better' than B, but is A the appropriate technique in terms of a particular set of epistemological premises X?" (Bryman, 1992:79). However, acceptance of this point cannot lead to the conclusion, at least implicitly that a clear symmetry between epistemology and method type is axiomatic. For such argument seems to be that quantitative and qualitative methodology [and their various synonyms] are, or exhibit distinct epistemologies, and that particular methods of research are appropriate to each. Bryman, (1992:89) contends that, "while this is a highly stimulating suggestion, it needs to be subjected to considerable investigation before it can be considered, an axiom of social research". If then the connection between method types and epistemology is not axiomatic, Hammersley (1992), Firestone (1987), and McLaughlin, (1991) argue the connection is rhetorical and that there is no inference that can be gleaned to constrain against the use of both methods within the same epistemological position. In effect, the judicious use of qualitative methods in conjunction with more traditional quantitative ones in the conduct of psychological androgyny research may make a valuable contribution, without deviance from Kuhnian thinking. With the advocacy of a rhetorical connection confirmed, this research now seeks to take a preliminary step towards identifying the possibility of a rationale existing for the use of both methods on a technical level, whilst remaining within the same paradigm.

The idea that there is a link between methodology *qua* epistemology is a convention seemingly derived from the 'logic of justification' (Smith and Heshusius, 1986) issue. Their principal concern, echoing that of Bryman (1984) is 'misconceptualisations about the issue' – how one characterisation of method relates to the other in the case of each approach. The point is that method as logic of justification, involving as it does basic philosophical assumptions [What is the nature of social and psychological reality? What is the relationship of the investigator to what is investigated – in this case psychological androgyny? And how is truth to be defined?], informs method as technique and the two terms cannot be used interchangeably. The focus here is that method may be taken as technique which is acceptable, but that the wider debate is about epistemological assumptions. It seems clear, then, that Smith and Heshusius (1986) view an axiomatic, if causal, relationship between method and epistemological position, although disengaging with Bryman (1984; 1992) whilst implicitly disparaging Hammersley (1992; 1996), Firestone (1987) and McLoughlin (1991), who consider the relationship, rhetoric. Again the crucial issue is that these conditions depend not on the techniques employed but rather on the logic of justification assumed. Given then two distinct characterisations of method, it is clear that the two perspectives will part company over issues such as enquiry process and the interpretation of research results. Which then is the more accurate perspective, will largely depend on the ontological and epistemological stance assumed. Succinctly, the most *logic* methodological choice will depend on the research's construction of knowledge.

Smith and Heshusius (1986) show a rather explicit bias towards quantification and the associated paradigmatic assumptions of positivism. Indeed a feature of this prejudice is a tendency to talk, exhibiting a preoccupation with operational definitions, objectivity, reality, validity and the like:

“...the quantitative approach, in which truth is defined as correspondence, the label valid announces results that reflect or correspond to how things really are out there in the world...rejection of such results may provide the criticism that one is being irrational or stubbornly subjective” [pg.9].

From the perspective of qualitative enquiry, this line of reasoning is unacceptable. Firstly, Smith and Heshusius (1986:9) make no mention of confidence levels, the correct application of 'valid' statistical techniques or a 'valid' interpretation of such. Their inference, that "rejection of results that reflect or correspond to how things really are, is being stubbornly subjective", is damning evidence of unitary vision and a disdainful insight for those who take a constructively critical viewpoint of any research including psychological androgyny. Secondly, if as appears, Smith and Heshusius are firmly entrenched within the positivistic paradigm: can they 'objectively' evaluate, from within that paradigm, the use of methods associated with another? Similarly, in the context of sport and the use of statistic differentials, can we claim 'objectively' that woman, on average, are not so strong as men from quantitative research alone? Thus the debate over whether method as logic of justification with method as procedure or technique does not revolve simply around some relatively uninteresting questions about the difference between the two perspectives. Rather it concerns the relation of quantification to questions about objectivity, validity, reliability and criteria for truth. As a result, "for quantitative enquiry, a logic of justification that is epistemologically foundational leads to the position that certain sets of techniques are epistemologically privileged in that their correct application is necessary to achieve validity or to discover how things really are out there" (Smith and Heshusius (1986:9). The issue here is Smith and Heshusius's commitment to objective reality and positivism, which in itself is fine, but is it a congenial base for acceptance of the possibility of combining methods of investigation? On the contrary, Smith and Heshusius (1986) also posit the principal argument for regarding the assumptions or logic of justification in the perspective of qualitative enquiry as not foundationalist and, by extension, do not allow that certain sets of procedures as epistemologically privileged. Thus, for Smith and Heshusius, the issue of the logic of justification separates the two methods at the epistemological level: they argue that there is an axiomatic, if causal relationship between method and epistemological position. However, for this claim to be asserted, they invoke [not without apparent bias] the idea of the privileged position of quantitative method due to its initiation from a paradigm that allows certitude of how the world 'really' is. Is it on this very premise, women's supposed inferiority evolves? They are against, it appears, not the use of both methods in the same research design,

but the use of qualitative methods and the interpretative paradigm *per se*. According to their view, it would appear the enquiry of research on psychological androgyny within an athletic setting is not the task of qualitative investigation. It is precisely this belief that is most often questioned by qualitative researchers. Smith and Heshusius (1986) promote not a discussion on complementarity but on the superiority of the quantitative method, deriving as it does from the positivistic paradigm. This 'intrusion' of the quantitative tradition into the search for knowledge of the social 'reality' out there, has been challenged and condemned by critical theorists (Bryman, 1992; Hughes and Sharrock, 1990) for presenting quantitative enquiry as a unique and privileged venture which delivered ultimate knowledge of reality. Given the assumptions of both methodological perspectives, on what rationale do qualitative techniques not have the 'epistemological privilege' that is attached to quantitative techniques? On what premise are quantitative results for sporting performance accepted as a means to sexual superiority or inferiority?

Smith and Heshusius (1986:10-11) denote the 'certitude of interpretation' as the distinguishing feature:

"The phrases "research has shown..." and "the results of research indicate..." are subject to different interpretations, given different paradigms. For quantitative enquiry, these phrases are claims to an accurate reflection of reality or the claim of certitude that one has discovered how some bit of the social or educational world really is. For qualitative enquiry, these phrases announce an interpretation that, to the extent that it finds agreement, becomes reality for those people as it is at any given time and place".

The former expresses certitude; the latter presents a description constrained by values and interests to be compared with other descriptions constrained by other values and interests. Such a statement is difficult in itself to prove and, accordingly, to assume an 'epistemological privilege' is erroneous as a quantitative approach relies on 'objective' interpretations. But since, Denzin and Lincoln (1994:2) employed the term [objective]; it is often manifest that "objective reality can never be captured". Such a perspective could severely limit any research on psychological androgyny to be objective and attain

an accurate reflection of how things really are out there. Smith (1984:380) states that “given this position, could there be any such thing as correct interpretation”. But Smith is adjudging this in terms of ‘correct’ when measured against an objective ‘truth’ and an objective ‘correctness’. But this is to desire a definite, objective reality and certitude. Although this idea is appealing, in that it permits a full understanding of the situation, on examination it is oversimplification. The problem is that the complexity of human interaction cannot be reduced to certain and definite answers that constitute knowledge. It seems then; research into psychological androgyny is an empty aspiration.

In the absence of knowing, Popper (1963:25) decrees “how can we hope to detect and eliminate error?” The answer for the present anyway, is not to ‘close down the conversation’ by favouring the quantitative method for reasons of perceived certitude but rather make every effort to keep the conversation open. Indeed, whether this characterisation is acceptable or unacceptable is at present unimportant; the point is that the quantitative-qualitative debate raises serious questions about the meaning of research results. To this end, the logic of justification within this research will come by way of careful consideration of the results of both methods, and not rely on the tenuous assumption that ‘correct’ application of quantitative method provides a logic of justification. As Hughes and Sharrock (1990:5) assert, “no technique is self-validating” thus, Smith and Heshusius’s (1986) argument against complementarity is rejected. Instead, this research will focus upon attempting to ‘falsify’, not on attempting to find a verified certainty. This *pro forma* argues for the complementarity thesis and that ‘procedural objectivity’ (achieved by using a method that eliminates, or aspires to eliminate, the scope for personal judgement.) will assist, in that coherent evaluation sustains the research on psychological androgyny; this evaluation can adjudge on the soundness of the assumptions of ontology and epistemology. Clearly then, for a defence of methodological unity the dichotomous position, which suggests that quantitative and qualitative approaches can be clearly distinguished, is subject to fervent examination.

An antithetical perspective:

These recent evocations thwarting what are usually considered antithetical modes of analysis has encouraged the view that perhaps the differences which separate the two are all 'false' or can at the very least be seen as perfunctory. Bavelas (1995) suggests challenging this dichotomous view of the two approaches to enquiry, and instead, replace it with a continuum way of discussing and using quantitative and qualitative research methods. But can quantitative research be viewed through a qualitative lens? Or can qualitative research be viewed with a quantitative lens? To deny the claim of compatibility is to deny the verisimilitude of the respective epistemological merits of these approaches and the methodological, practical and even political relations between them. Another way to visualise this way of thinking is to imagine espousing research doctrine without subscribing to the very nature of research itself. That is, can we posit research on psychological androgyny, if we don't subscribe to the very essence of research itself? Quite clearly, in the refutation of compatibility, the prevailing argument, consisted in showing that there is a fundamental spilt in the social sciences, which turn on dichotomy (cf. Corrigan, 1975; Evered and Louis, 1981; Guba and Lincoln, 1982). It is, perhaps, not surprising to find that the social sciences in effect remain entrenched in a dichotomous frame of reference, from which they appear largely unable to depart.

So why then should the dichotomous paradigm, of which the quantitative–qualitative dichotomy is but one element, become so dominant and remain so compelling? Consider the distinction, often ascribed for quantitative and qualitative methods that annotation within the former is 'numerically' denoted, whereas 'verbal' denotation is associated with the latter. Priest (1996) asserts that quantitative research is essentially any method that uses numerical counts or measures and statistical analysis in place of verbal material, or which could not be sensibly turned into numbers of some kind e.g. statistics and measures of performance differentials. In contrast, Van Maanan (1983) described qualitative research as an array of interpretative techniques, which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world e.g. expressions. This is not a comprehensive assertion for distinction and certainly

does not recognise the degree of each that may be used. As Hammersley (1992:41) observes, a large proportion of quantitative data is accounted for in “verbal” denotation. This would require that all words used within quantitative claims [‘many’, ‘several’, ‘usually’, ‘often’] be expunged from qualitative annotation. In attributing to labels of this kind, an essentially syntactic distinction of language itself is being claimed. Surely, such a divide cannot reasonably be reduced to conservative functions of writing?

Hammersley (1992) contends otherwise, positing that it is not the character of the words in question but the level of precision adopted by the quantitative researcher in scripting these words. It follows from this that sometimes it may not be legitimate to use terms that are more precise than ‘several’, ‘often’, ‘many’, and so on. Thus, there appears no stark contrast between the ‘verbal’ and the ‘numerical’ data treatment, or even between ‘precise’ and ‘imprecise’. Rather, there is a range and degree of judgement involved. Thus “decisions about what levels of precision, structure and context are appropriate in relation to any particular study depend upon the nature of what is being described, upon purposes, and upon the resources available, not upon ideological commitments to one methodological paradigm or another” (Hammersley, 1992:162). Is such a divide acceptable to this research on psychological androgyny? This research claim’s it is *not* acceptable.

An initially more plausible distinction focuses on the nature of the phenomenon investigated: whether it is ‘artificially created’ which is often identified with quantitative research, or ‘naturally occurring’ with an affiliation to qualitative research. Bavelas (1995:57) associates the distinction with divergent forms of explanation and understanding:

“The pastoral variation on this theme is to bless all research outside the lab with the label ‘natural’. In contrast, lab/ experimental/ quantitative research, and indeed any behaviour that occurs in the presence of an experimental psychologist, is characterised as ‘artificial’.”

In offering a pragmatic, succinct view, Hammersley (1992:163) denotes the distinction between natural and artificial setting, as a demonstrably spurious and false analogy: “what happens in a school classroom or a court of law is no more natural than what goes on in a psychological laboratory”. Here, Hammersley is making the reasonable claim that researchers who insist that social research must always conform to its constituent parts are guilty of erroneous approximations. Thus, the use of data, and the nature of the source of that data, does not create a distinction as definite as is sometimes thought.

The naturalist/anti-naturalist divide would also appear to be a tenuous allegiance. The concept of ‘naturalism’ in social science research, Hammersley (1992) claims, has exaggerated what differences there are between quantitative and qualitative research. Indeed, Hammersley suggests that the contrast between these two positions do not seem to map on to the distinction between quantitative and qualitative research in a straightforward way. “There are advocates of both research methods who justify their approach precisely on the basis of natural science method” (Hammersley, 1992:47). The view taken here is that the depictions of the concept of ‘naturalism’ as distinct entities of social research are not a simple one: What natural science is been taken as the ‘model’? – Physics? Biology? Psychology? What interpretation of the methods of natural science is to be adopted? – Positivism? Conventionalism? Realism? What aspects of natural science method are to be treated as generic? Brannan (1992:166) in response to the naturalism debate asserts that “the complexity resists reduction to a simple contrast between just two incommensurable philosophical positions, and neither quantitative nor qualitative research is exclusively wedded to one position”. Thus the distinction between a naturalist and anti-naturalist divide seems to provide little clear basis for the division between quantitative and qualitative methods in this research.

Following on from the contrast between quantitative and qualitative approaches in terms of commitment to the model of natural science is the idea that a deductive/inductive divide exists. Hammersley (1992:160) suggests that “the deductive/inductive dichotomy is false”. Moreover, the distinction between studies

that are concerned with testing hypotheses and those that are primarily exploratory concerned with description and with generating theoretical ideas, is often employed to discredit the claims of methodological compatibility (Scott and Usher, 1996). Guba and Lincoln (1989: 114) argue that "these types of research are not alternatives: there are deductive and inductive elements involved in all types of data analysis: both are needed". Nor need the former necessarily be quantitative and the latter qualitative. Researchers may differ about when or at what stage of their research they should employ deductive or inductive techniques, but this does not amount to a major difference between the two approaches. Thus, it seems clear, then, "that the paradigm view of the relationship between quantitative and qualitative approaches is empirically inaccurate, not just at the level of method but also at that of the philosophical assumptions guiding research" (Hammersley, 1992:166). Furthermore, "it is also misleading in its portrayal of the options available to researchers: it implies that the researcher is faced with two homogenous traditions that are internally coherent and based upon opposed philosophical views. In fact, there is a considerable range and variety of techniques for data collection and analysis in psychology and the social sciences; and there is no fixed relationship between particular views and the use of particular methods" (Hammersley, 1992:167). Hammersley rationalises his argumentation for 'methodological eclecticism', by asserting that researchers should acknowledge the inherent differences between the paradigms of positivism and phenomenology in cognisance of their views of the world and the nature of reality. This is not to deny that differences exist; but it is to suggest that the two methods do not belong within separate research paradigms and thus can sensibly be used within the same investigation. From this point of view, then, this research cannot but rely on constructing hypotheses, assessing them against experience and modifying them where necessary.

Adding yet another distinction to this debate, Smith (1984:386) argues that quantitative research is "wedded" to a realist epistemology in the sense of assuming that true accounts correspond to how things really are and that competing accounts must be judged in terms of whether the procedures adopted ensure accurate representation of reality. By contrast, qualitative method is idealist, in that it rejects any possibility of

representing reality. It recognises that there may be as many realities as there are persons. Hammersley (1992) argues that the distinction between the two terms of realism and idealism is false, as frequently what are compared are extreme versions: relativistic idealists and representational realists. It is more common to find that researchers from both camps accept that their accounts are socially constructed but that as researchers they do not invent reality. In advocacy, Hammersley contends that researchers [Miles and Huberman, 1984; Porter, 1993] who claim allegiance to qualitative method also 'declare their allegiance to realism'. Clearly, the key claim made here is that 'there is no simple match between the realist/idealist and quantitative/qualitative distinctions'.

There are of course a multiplicity of factors which have contributed, and continue to contribute, to the maintenance of quantitative/qualitative [and related] divides within the social sciences. Not all of them have been discussed: objective/subjective; empirical/not empirical; not generalisable/generalisable; sociology/anthropology, amongst others. However, sufficient has been stated to demonstrate the importance of epistemological issues. The argument is not for paradigmatic unity, or more accurately it is not to argue in favour of alternating between paradigms. Rather it is argued that by using both quantitative and qualitative methods, such a fluctuation will not occur, as method is not linked to epistemology in a manner that prohibits such an approach. Put quite simply, quantitative method may be used within an interpretative paradigm and within a phenomenological approach. Or, research on androgyny can be quantifiable whilst remaining within a single interpretative paradigm.

In contrast to the seemingly contemptuous discourse against positivism, it is not merely the 'case' against positivism, or philosophical balance, between causal analysis and interpretive understanding. Nor is it to offer a defence against the critiques of positivism but alternatively, to assert that there are methodologically different approaches whereby compatibility may exist between the two perspectives. It is not therefore simply diluting the problem, seemingly apparent at the outset, of 'fluctuating' between paradigms but rather a process whereby if common ground can be found on which to build a new relationship, perhaps differences which separate the two can be

strategically minimised. Here, a fluctuation between paradigms is not necessary, even if it were possible.

Although, this research on androgyny [through rejection of the notion that to construct a quantitative design is to inherently 'side' with a positivistic philosophy] will not be fluctuating between paradigms, it is still necessary to discuss further theoretical considerations that may exist when the decision to combine or integrate both quantitative and qualitative methods of research analyses is taken. To elaborate this assumption, a decision as to whether or not to use an integrated or complementary approach will be reasoned and its relation to triangulation assumed.

A complementary approach:

The context within which the combining of multiple methods is most frequently encountered is in the admission that quantitative and qualitative research methods are fallible. Comments like those of Easterby-Smith, et al (1991:32) which view quantitative research as "rather inflexible and artificial" and Kerlinger's (1973:401) conception of qualitative research as "lacking in objectivity; rigour and scientific control" accent the growing awareness of the individual weaknesses of research methods. From this perspective it is easy to see that individual methods may be flawed, but fortunately the flaws in each are not identical. Thence, "a diversity of imperfection allows the combining of methods not only to gain their individual strengths but also to compensate for their particular faults and limitations" (Brewer and Hunter, 1989:17). The multiple method approach is largely built upon this insight. Brewer and Hunter, claim its fundamental strategy is to assume a research problem with an array of methods that have non-overlapping weaknesses in addition to their complementary strengths.

There is, however, much controversy as to the conditions under which multiple methods ought to be combined. It would be simple to proclaim 'triangulation' as the defence for the use of both methods. But this would belie the fact that triangulation must have a reason, a procedure and an underpinning rationale for deployment. Denzin's (1970) original formulation of triangulation saw the combining of research

strategies as a means of examining the same research problem and hence of enhancing claims concerning the validity of the conclusions that could be reached about the data. In Denzin's view, the assumption was that the data generated by the two approaches, which were assumed to focus on the same research problem, were consistent with and were to be integrated with one another. By contrast, some researchers talk in terms of the complementarity of the two approaches. By this is meant that each approach is used in relation to a different research problem or different aspect of a research problem (Bryman, 1984). In this view, where a differing data analysis method is applied to a different research problem, the results are not expected to be consistent; rather they are seen to be complementary to the overall research design, and not integrated as if they produce the same types of data. Data can only be understood in relation to the purpose for which they were collected, for example, the production of, or testing of, a theory. If the purposes differ, the data sets cannot be integrated. Thus, Bryman (1984:14) suggests that "those who favour complementarity recognise that data are constituted by the method which elicits them and that different data sets do not add up to some rounded unity".

Clearly then, over-reliance upon any one type of method, no matter how great its advantages in other respects, is problematic because it fails to guard against the specific sources of error which threaten that method. There may therefore be a good theoretical case for combining methods in order to study different levels of enquiry and in order to explore different aspects of the same problem. This may add, if considered correctly, breadth and depth to the analysis (Fielding and Fielding, 1986). To remind us, the first stage of this thesis has presented a tentative theory to generate hypotheses and aims to test these upon data derived from an inventory and subjected to quantitative analysis. This may provide clarification as to the androgyny of the sample and postulate how this may affect the athlete's success. But postulates so generated require further consideration. What androgyny means to the athletes must be extracted from a qualitatively derived data analysis. The first stage will apply and quantitatively analyse the *incidence* of androgynous behaviour as applied to a sport-specific context. What such a stage cannot do is explain how such androgynous incidence affects the athlete success rate and how it may be manifested. Thus, a

qualitative method will be employed alongside a quantitative method in a complementary manner.

If the findings, which result from different methods, are at odds or conflict with one another, these seeming contradictions may be addressed in the interpretation of the data and the further theory that may be generated. Indeed, it is felt that 'rich data' may result with a comparative examination of the behaviours expected of an athlete with what it is to be an athlete. The point here is that the complementary use of both quantitative and qualitative methods will not involve mixing – or indeed diluting – the procedures, and therefore diluting the relative merits of each.

A compromise:

The normative paradigm has been rejected in favour of the interpretivist paradigm: an interpretive phenomenological approach has been adopted. However, an inventory, quantitatively analysed, will be employed to test a tentative theory derived from the reflective, phenomenological treatment of the secondary data. This, initially, would appear to raise epistemological questions regarding the fluctuation between the interpretivist and normative paradigm. But, the argument has been offered that the social survey – of which the inventory is seemingly a feature – is not necessarily of a positivistic nature. It is a "pragmatically developed device which has no necessary identification with the ideals, aspirations or requirements of positivism" (Hughes and Sharrock, 1990:15). The inventory employed is constructed out of social action, meanings and behaviour. It contains constructs that were given by social actors; it is based upon notions and meaning of actions. Further, an argument has been forwarded that method is not necessarily informed by an epistemological stance in any more than a rhetorical fashion. Thus, the charge of a fluctuation between paradigms that may result from the use of a qualitative inventory and a qualitative interview can be countered. Further still, it has been argued that qualitative method of data collection and analyses may be employed within an interpretivist paradigm.

The use of both quantitative and qualitative researches and analysis techniques cannot be justified on the grounds of recourse to the claim of 'triangulation'. The methods in

this research on psychological androgyny within an athletic setting design will be 'complementary', not integrated, as it is recognised that the two methods generate different types of data, and cannot be expected to achieve a 'rounded unity'. However, the relative merits of the two approaches may be expected to assist in both the clarification of, and explanation of, the social action of athleticism and the concept of androgynous functioning in context.

For this research design, a methodologically aware eclecticism has resulted in a principled deployment of both quantitative and qualitative methods in a complementary fashion based on the following principles:

- No more than a rhetorical link exists between method and epistemology, which allows for investigation on psychological androgyny to be a complementarity of both quantitative and qualitative approaches as situationally appropriate.
- The apparent 'distinctions' between quantitative and qualitative methods are often erroneous and do not always reflect differing paradigmatic assumptions. As with the 'supposed' differences between the sexes, methodological distinctions are often conceptual fallacies, which restrict rather than assist research into androgynous behaviours.
- Both methods may be employed within the same paradigm. A claim which *frees* this research on androgyny to align either to the normative or interpretative paradigm as situationally appropriate. The research argued for an interpretivist paradigm.
- Both quantitative and qualitative methods may be used within a single research design. Thus allowing the perceived 'weaknesses' of either method to be compensated by the perceived strengths of the other and accordingly provide a truly holistic view of research on psychological androgyny.

- Complementarity of method recognises the technical differences in the data generated. And, therefore lends itself to a more rounded and complete unity in this research design.

This proviso demonstrates the desire to present 'procedural objectivity'. It returns to the advice of Hughes and Sharrock (1990:5) which is: "that it is necessary for philosophical issues to be regarded as the preliminary ones that need to be addressed in order that sound methods for enquiry can be laid down in advance of the empirical work itself". Subsequently, this research has noted and defended against the use of methodological complementarity to facilitate discussion on psychological androgyny within an athletic setting. Indeed, it is possible to claim that a congruent approach to research philosophy informs this research.

APPENDIX 1.3:
QUESTIONNAIRE

The following questionnaire is part of a research programme, which focuses upon athletic success. Please answer the questions freely. The questionnaire should take you approximately 2 minutes to complete. All the information you provide will be treated in the strictest confidence.

1. Please tick ☒ in the appropriate box your gender.

Male ☐ Female ☐

2. Please tick ☒ the box in the provided column for the period when you were active as an athlete.

Era
1970s ☐
2000s ☐

3. For the following statements please tick ☒ the box that matches the degree to which you think each one applies to you most closely.

Where 1 = Never or almost never true. Where 4 = Occasionally true. Where 7 = Always or almost always true

	Never		Occasionally			True	
	1	2	3	4	5	6	7
I am aggressive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I love children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am affectionate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	True			Occasionally			Never
	7	6	5	4	3	2	1
I am willing to take risks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am assertive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am warm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Never			Occasionally			True
	1	2	3	4	5	6	7
I am compassionate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am willing to take a stand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I will defend my own beliefs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	True			Occasionally			Never
	7	6	5	4	3	2	1
I am understanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am eager to soothe hurt feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a strong personality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Never			Occasionally			True
	1	2	3	4	5	6	7
I am dominant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am tender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am gentle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	True			Occasionally			Never
	7	6	5	4	3	2	1
I am independent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am forceful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am sympathetic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Never			Occasionally			True
	1	2	3	4	5	6	7
I am sensitive to the needs of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have leadership qualities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PTO

Where 1 = Never or almost never true. Where 4 = Occasionally true. Where 7 = Always or almost always true

	Never		Occasionally				True
	1	2	3	4	5	6	7
a) Personal goals are important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Physical appearance is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Self-esteem is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Public esteem is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Personal fulfilment is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Another (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div></div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for taking the time to help. Your assistance is very much appreciated.

APPENDIX 1.4:

AUTHENTICATING, SCORING and CLASSIFYING THE BSRI

The development of the BSRI highlights the complexity of test construction and the importance of relating measurement to theoretical ideas, in this case about gender. Here therefore the focus is on the process of test development as reported in Bem's and Spence and Helmreich's researches, but a brief précis of androgyny is appropriate.

In 1973, Constantinople revolutionised the conceptualisation of male and female sex roles when she advanced that masculinity and femininity were not opposite ends of a unidimensional continuum but rather independent constructs. This gave rise to androgyny theory, which advanced that individuals could be both masculine and feminine, and that in fact, the most healthy gender orientation was one containing elements of both. Reflecting similar concerns about the treatment of masculinity and femininity as antithetical, Bem (1974) constructed the Bem Sex Role Inventory (BSRI) to measure the two attributes as orthogonal dimensions, and also to yield an androgynous score. Bem proposed that the BSRI be used as a self-rating instrument, in which the respondent is asked to indicate on a 7-point scale, ranging from 'never or almost never true' to 'always or almost always true', the degree to which each trait describes him or herself. "Masculinity equals the mean self-rating for all endorsed masculine items and Femininity equals the mean self-rating for all endorsed femininity items" (Bem, 1974:158). Two additional scores can be obtained from the responses to the BSRI: an Androgyny score, which is essentially the discrepancy between the Masculinity and Femininity scores (Pedhazur and Tetenbaum, 1979), and a Social Desirability score, which is the mean self-rating on the 20 'neutral' traits. (For further details, see Bem, 1974). Bem's writings indicate that she expects scores on her scale to relate well to a rather broad range of 'sex-typed' behaviours and self-reports (Lenney, 1979; Spence, 1991). Thus, the BSRI is the appropriate measurement instrument for studies primarily interested in broad gender-related constructs (Frable and Bem, 1985; Frable, 1989). Here, we will focus on the BSRI as a test inventory for androgyny in a sport context.

Yet despite, the wide acceptance of the BSRI as a measure of self-description in terms of independently varying masculinity and femininity subscales, some research, has indicated controversy over its construction and scoring (e.g. Pedhazur and Tetenbaum, 1979; Spence, Helmreich and Stapp, 1975). In sum, it was found that, regardless of the referents used, the 'masculine' traits were relatively high in desirability but some of the 'feminine' traits were low in desirability (Pedhazur and Tetenbaum, 1979). Also, Bem's classification of the BSRI traits into masculine, feminine and neutral were deemed not tenable (Locksley and Colten, 1979). As a result, Bem revised the BSRI to correct for these inconsistencies. The short BSRI, or SBSRI, eliminates the low desirability items, and the terms 'masculine' and 'feminine', and shortens the scale overall (10 items per scale), thereby equating the desirability of all the traits. The following items were eliminated from Bem's (1974) original femininity subscale: yielding, flatterable, soft-spoken, doesn't use harsh language, feminine, shy, gullible, loyal, child-like. The following items were eliminated from the original masculinity score: athletic, analytical, self-sufficient, masculine, self-reliant. Inspection of the items remaining on the short BSRI reveals that the *M* and *F* scales now contain, respectively, only socially desirable instrumental and expressive traits (Spence, 1983). Furthermore, the short BSRI is based on the proposition that a traditionally sex-typed person is highly aware of the cultural definitions of sex-appropriate behaviour, and evaluates his or her behaviour using these definitions as the ideal standard. That is, such a person is "motivated to keep his or her behaviour consistent with an idealised image of femininity and masculinity" (Bem, 1981:4). Therefore the short BSRI has become, in essence, a suitable inventory for studies trying to link gender personality and ideology (Spence, 1991) and in effect a suitable inventory for this research on androgynous levels in athletics.

Scoring the SBSRI:

The earliest scoring method, proposed by Bem (1974), utilised a *t* ratio statistic to determine whether the self-description in terms of masculine attributes differed significantly from self-description in feminine attributes, with small *t* ratios indicating androgyny and with large *t* ratios (significant differences) indicating either sex-typing or cross-sex-typing (Bem, 1985; Cook, 1985). The *t* ratio-scoring method was initially

preferred because it determined whether a person's self-description using masculine adjectives was meaningfully different, statistically speaking, from that using feminine adjectives. It also permitted ready comparison of distributions of sex-typed persons across various populations. Bem (1979) later stated that the theoretical rationale behind the choice of t scores was to distinguish between individuals who tend to cluster the attributes on the inventory into two categories on the basis of sex-typed desirability from those who do not. Spence and Helmreich (1979c) however, did not agree that a clear theoretical rationale for use of difference scores was present. In their view, the t ratio method implies that masculinity and femininity contribute equally but in opposite directions to their impact on behaviour. Individuals high in both instrumental and expressive characteristics (as measured by the BSRI) should exhibit the same amount of instrumental/expressive behaviours as those low in both dimensions. Spence and Helmreich noted that use of the balance method posits a specific, joint relationship among masculinity and femininity and all other criterion variables, which they see as less likely to be valid than models recognising more complex and varied relationships.

This criticism led to the suggestion that the BSRI be scored on the basis of a median split, a scoring procedure Spence, Helmreich and Stapp (1975) in their early research on the PAQ observed as demonstrating positive correlations between masculinity and femininity, and between each scale and a measure of self-esteem. They suggested that an additive model might well represent androgyny, in which "the absolute strengths of both components (influence) attitudinal and behavioural outcomes for the individual" (Spence, Helmreich and Stapp, 1975:35). To operationalise this model, they recommended splitting the total weighted subject population of both sexes at the median of both scales. Respondents are then assigned to one of four categories: high-high (androgynous), low-low (undifferentiated), and two sex-typed categories representing those who had a predominance of one set of characteristics (masculine and feminine). In response, Bem (1977) reanalysed results of her previous studies and found significant differences between high-high and low-low scores on some dependent variables. Consequently, Bem recommended use of the median split procedure and revised the BSRI scoring accordingly.

Although, the median split procedure is Bem, Spence and Helmreich's method of choice, it is by no means uniformly accepted. Pedhazur and Tetenbaum (1979:1013) attacked the median split method as crude, imprecise in classifying individuals whose scores fell close to the median, dependent on samples of convenience (e.g., classrooms) rather than on defined populations, and "unwarranted in view of the factorial complexity of the scales". Furthermore because median-split's theoretical focus is on an individual's integration of the two constructs (masculinity and femininity), then categorical procedures are subject to information loss and unreliability in high density regions of the data (cf. Bobko and Schwartz, 1984), so inevitably subjects will score highly on androgyny or masculinity or the other terms. Sedney (1981) too, emphasised that median split scoring does not differentiate primarily between sex-typed and non sex-typed persons, which was a major purpose in early androgyny research. In succinct, the rudimentary construction of median-split analysis deems these characteristics either masculine or feminine, and this may influence the findings. Whilst other researchers (cf. Cook, 1985) have criticised the median split method for its lack of precision. The median split method simply notes whether the masculinity and femininity scores are 'high' (above the median) or 'low' (below the median) (Cook, 1985). Potentially important information about the size of the scores is lost. Finally, this technique is also methodologically problematic because it restricts variances and reduces the power to detect interactions (Aiken and West, 1991). Bobko and Schwartz (1984) explicitly address several such arguments concerning the empirical use of 'broader' scoring procedures. They noted the data are more convincing when gathered with a continuous metric which ameliorates these problems and is suitable for correlational analyses e.g. analysis of variance (see also Taylor and Hall, 1982). Whether or not it is acceptable for one procedure to become exalted, and that is still debatable (see Kowalski, 1995), the research is confronted with quite different scoring systems for desirable comprehension.

Like the *t* ratio before it, Spence and Helmreich (1979c) recognised the median split procedure as a simple way to represent the joint influence of masculinity and femininity. They cautioned that its presumed empirical superiority has not been

demonstrated, and as a single method will not be likely to encompass all data. This gave rise in research using the BSRI and PAQ to that of analysis of variance. Bem (1977), Lubinski (1983), Richardson, Merrifield, and Jacobson (1979), Taylor and Hall (1982) amongst others, proposed **Analysis of Variance (ANOVA)** as a comprising additive that avoids this data loss. One-way ANOVA, or single factor ANOVA, is a powerful and common statistical procedure in the social sciences. ANOVA (*t*-test) provides the means to detect the statistical significance of the differences between the samples *as a whole*. In other words, the significant differences among the mean scores of two or more groups on one or more variables i.e. masculine and feminine domain of athletes. The *t*-test is a special case of one-way ANOVA and determines if there are differences between the means at the chosen probability level. Subsequently, ANOVA works out the *p* value, so called as an abbreviation for probability. The *p* value or calculated probability is the smallest fixed level at which the null hypothesis can be rejected. For instance, if the fixed level is greater than or equal to the *p* value ($p \leq$), the null hypothesis is rejected. On the other hand, if the fixed level is less than the *p* value ($p >$), the null hypothesis cannot be rejected. Conventionally, in social science research, a *p* value of 0.05, or a confidence interval of 95% is the value most commonly accepted. In other words, if you state that your level of significance is 5% (also called an *alpha* level), then you're allowed to call any result with a *p* value of less than 0.05 significant. For example, if a *p* value is 0.027, the results are significant for all fixed levels greater than 0.027 (such as 0.05) and not significant for all fixed levels less than 0.027 (such as 0.01). A research using the 0.05 level would reject the null hypothesis. These values have now been enshrined as the threshold values for declaring statistical significance in social science research. Ideally, for this test the research would have the same number of replicates for each sample (www.isixsigma.com) and should be used where $n < 30$ (www.le.ac.uk). Thus, one-way ANOVA produces equivalent results to those of the *t*-test (UITS Research Computing, 2006).

In Bem (1977), Lubinski (1983), Richardson, Merrifield, and Jacobson (1979) and Taylor and Hall's (1982) view using analysis of variance as a framework for discussion, indicated that the median split procedure corresponds to main effect analysis (e.g.,

comparing high versus low masculinity). Taylor and Hall (1982) argued persuasively that analysis of variance can simultaneously provide these high-high and low-low distinctions and contrasts between androgynous (balanced) and non-androgynous (unbalanced) subjects through interaction effects. Taylor and Hall (1982) view balanced models (t ratios) and classification models (median split) or any hybrid of the two scoring procedures described as confusing and may slant what conclusions are drawn (see also: Hoferek, 1982; Spence and Helmreich, 1979c; and Marwit, 1981). The analysis of variance approach has formed the basis for research on the athlete sample of this study.

In sum, Bem (1974) advocated the use of a t ratio scoring method for defining androgyny but was criticised (Spence and Helmreich, 1979c and Spence, Helmreich and Stapp, 1975) on the basis that this method did not distinguish between high and low scorers on both masculinity and femininity. They proposed a four-way categorisation (masculine, feminine, androgynous and undifferentiated) by dividing respondents at the median of masculine and feminine. This procedure was an improvement over the subtractive method and was subsequently accepted by Bem (1977). There are still problems: the most pointed of which focused on its lack of precision in representing the individual's levels of the two dimensions. Which scoring method should then be used? Downing (1979) suggests the question of which scoring method to use may not be an issue of deciding which is superior or inferior, as both the t ratio and median split have had about equal success and criticism in corroborating theoretically based definitions of androgyny. Instead, Bem, (1977), Lubinski, (1983), Richardson, Merrifield, and Jacobson, (1979), Taylor and Hall, (1982), amongst others, propose a different approach to scoring, using analysis of variance (ANOVA), which provides the means to detect the statistical significance of the differences between the samples as a whole and provide high-high and low-low distinctions. In their view, this analysis of variance procedure should be more effective to detect significant differences between masculinity and femininity [of athletes] whilst represent differences between 'high' and 'low' levels of endorsement. For empirical purposes this seemed an entirely sensible proposal, and therefore has been adopted in this study on androgyny in an athletic context.

Specificity of inventory:

A pertinent issue in adoption of any personality inventory is its applicability to populations other than those upon which the inventory was based. The SBSRI measures were based on the responses of American College students, a rather specialised segment of the total population of men and women, and potentially incongruous with British athletes. The possible impact of age, socio-economic status, geographic and ethnic differences have all received attention within the androgyny literature but have not been extensively explored. However, generally cross-sectional comparisons indicate only minor differences (Cook, 1985). For example, Fischer and Narus (1981a) and Hyde and Phillis (1979) found only minor variations in scores as a function of age using respondents representing a range of ages. Similarly, Cook (1985) reported that self-descriptions in masculinity/femininity characteristics do not vary greatly as a function of socio-economic status as classified. Comparisons of geographic differences also evoked only modest variations, suggesting that geographical factors do not in themselves slant the data (cf. Cook, 1985; Segal and Richman, 1978; Vandever, 1977). Interestingly, least attention has been given to racial differences in androgyny research. Most noteworthy is Heilbrun's (1981b) research, which reported an unpublished study by Weller who compared samples of black Caribbean and black American students with Spence and Helmreich's (1978) scores for white students. There were negligible differences on the masculinity and femininity scales. Although, some differences in age representation, socio-economic status, and geographic and ethnic relationships have been noted, in general the data suggests the SBSRI is generic.

Classification of the SBSRI:

The BSRI short form, a validated test instrument designed specifically for empirical research of psychological androgyny, was used for this research. Thereof, classification of items on the BSRI short form *M* and *F* scales is reproduced. Consideration was given to include the *athletic* variable previously eliminated from Bem's (1974) original masculinity scale in context to the nature of the research, however it was deemed inappropriate for meaningful comparisons.

SBSRI	SBSRI
M Scale	F Scale
<i>Desirable Instrumental Traits</i>	<i>Desirable Expressive Traits</i>
Aggressive	Affectionate
Assertive	Compassionate
Defends own beliefs	Eager to soothe hurt feelings
Dominant	Gentle
Forceful	Sensitive to the needs of others
Has leadership qualities	Sympathetic
Independent	Tender
Strong personality	Understanding
Willing to take a stand	Warm
Willing to take risks	Loves Children

Athletes indicated how well each item describes themselves on the same 7-point scale as devised by Bem. Each respondent to the SBSRI receives a *Masculinity* score equal to the total number of masculinity points in his or her self-concept and a *Femininity* score equal to the total number of femininity points in his or her self-concept. The total score possible on both the *M* and *F* scales is 70. The aggregate score for both the *M* and *F* scales is 140.

1	2	3	4	5	6	7
Never or almost never true	Usually not true	Sometimes but infrequently true	Occasionally true	Often true	Usually true	Always true

Much of the debate when using an ordinal scale is whether the ‘distance’ between the sub-categories is equal. This concerns the question of whether the researcher is to, or not to, assume the difference answering *never or almost never true* and *usually not true* is of the same size as between *usually true* and *always true*. As Kumar, (1999), and Wright (1997: see also Aiken, 1997) notes, these sub-categories of opinion are related to one another in terms of the expression of opinion, but the expression itself is not quantifiable, and hence, the difference between *never or almost never true* and *usually not true* or between *usually true* and *always true* sub-categories cannot be ascertained. In

short, this type of scale permits the measurement of degrees of difference, but not the specific amount of difference. For this reason, the scale employed on the SBSRI was deemed as ordinal.

APPENDIX 1.5:

CONTENT ANALYSIS: MEANING AND DEFINITION

Best thought of as an overall approach, a method, and an analytical strategy, *content analysis* entails the systematic examination of forms of communication to objectively document patterns (Rossman and Rallis, 1998). While most classical content analyses culminate in numerical descriptions of some features of text corpus, the strategy here is to critically analyse what is portrayed and symbolised in such textual representations and what is absent or silenced, before any quantification takes place. In this way, content analysis bridges statistical formalism and the qualitative analysis of the materials (Bauer, 2000). In the quantity/quality divide in social research, content analysis is a hybrid technique that can mediate in this unproductive dispute over virtues and methods (Bauer, 2000; Roberts, 1997).

Content analysis can be a powerful tool for determining communication content. For instance, how does a quality and popular athletic magazine report on the female athlete and performance? How has athletics which is regarded as an unequivocally masculine endeavour been cultivated by print of the time? When and how does the 'achievement' theme appear in athletic coverage concerning females? Do contemporary women's magazines address their audiences in a different manner to that of archival women's literatures? What do images and text in women's publications communicate? Can the research reconstruct changes in social values from personal memoirs or training regimes? In essence, who says what, to whom, why, to what extent and with what effect (Lasswell, 1902-1978)? The responses are then used to make inferences about the messages within the text(s), the writer(s), the audience, and even the culture and time of which these are a part (Weber, 1985). This is expressed by Krippendorff (1969:193; 1980:21), who defines content analysis "as the use of replicable and valid method for making specific inferences from text to other states or properties of its source". But content analysis has undergone considerable development over the years, so that it came to be defined in several ways:

SOME DEFINITIONS of CONTENT ANALYSIS (*emphasis added*)

“A research technique for the *objective, systematic, and quantitative* description of the manifest content of communication” (Berelson, 1952:18).

“Any technique for *making inferences by objectively and systematically* identifying specified characteristics of messages” (Holsti, 1969:14).

“Information processing in which communication *content is transformed*, through objective and systematic application of *categorisation rules*” (Paisley, 1969).

“A research methodology that utilises a *set of procedures* to make valid inferences from text. These inferences are about senders, the message itself, or the audience of the message” (Weber, 1985:9).

“Content analysis is a *catch-all term* covering a variety of techniques for making inferences from text data” (Bernard, 1988).

Some of the changes in content analysis reflect a greater awareness of a range of theoretical perspectives on the functional aspects of words and images as representational, signifying or discursive practices. Developments beyond the mainly descriptive, empirical approach were encouraged for practical reasons too, as the importance of investigating both syntactical (or manifest) content analysis and semantic (feeling tone, or inferred content analysis) meanings became more significant (Richardson, 1996; Wilson, 1989). Accordingly, many studies now reconstruct representations in two main dimensions: the syntactical and the semantic (cf. Bauer, 2000; Krippendorff, 1980; Stemler, 2001; Wilson, 1989).

Syntactical procedures focus on sign vehicles and their intentions (Bauer, 2000). The frequency of words and their ordering, the vocabulary, the types of words and grammatical and stylistic features are indicative of a source and of the likelihood of influence over some audience (Bauer, 2000; Krippendorff, 1980). The unusually frequent use of a form of words may identify a likely author, and a certain vocabulary may indicate a likely type of audience. The assumption made is that words and phrases that are mentioned most often are those reflecting important concerns in every communication (see also: Zipf's law, 1949; Bayesian theory, c. 1702 - 1761). Therefore, quantitative content analysis starts with word frequencies, space

measurements (column centimetres/inches) and keyword frequencies (Krippendorff, 1980; 2004). Semantics concerns the 'what is said in a text?' the themes and valuations (Weber, 1990). Words, sentences and larger text units are classified as exemplars of predefined themes and valuations (cf. Bauer, 2000; Krippendorff, 1980; 1984; Weber, 1990). The frequent co-occurrence of words within the same sentence or paragraph is taken to indicate associative meanings (Bauer, 2000; McKeone, 1995).

Consistent therefore with the analysis rendered in most classical examples (cf. Bauer, 2000; Holsti, 1969; Krippendorff, 1969; 1980; 2004; Stemler, 2001; Wilson, 1989), and the researches claim for methodological congruency, a combination of both syntactical (manifest) and semantic (latent) properties will inform the data analysis.

Construct Validity:

Content analysis is a social construction (Bauer, 2000). Like any viable construction, it takes into account some reality, in this case the text corpus, and it needs to be judged by its outcome. However, this outcome is not the only grounds for assessment. In research, the outcome means whether the analysis delivers interesting results and withstands scrutiny; but elegance may also be part of the assessment. Content analysis methodology has an elaborate discourse of quality, with the key concerns being the traditional reliability and validity constructs (Bauer, 2000). Weber (1990) believes the issues of reliability and validity are concurrent with those addressed in other research methods. No content analyst expects perfect reliability where human judgement is involved, and so the question of an acceptable level of reliability arises (Bauer, 2000). The outcome of one's conclusions, then, is very dependent on how one determines concept categories, as well as how reliable those categories are. As Berelson (1952) points out, since the categories contain the substance of the investigation, a content analysis can be no better than its system of categories. Akin to this is the inference of particular intentions or understandings from the text alone (Eco, 1994; Merten, 1995).

This issue of 'contamination' is central therefore to the development of this study's methodological strategy, as one of the study's tendencies towards content analysis is

the implicit dimension of validity within the data. From this perspective, the issues of reliability and validity were reasoned for in the following ways:

First, sampling procedures were a necessary step in terms of maintaining validity and achieving generalisability. For this study, random sampling (*where possible*) was conducted ensuring 'negative cases' had an equal probability of being selected as those cases which may support the study's hypotheses. This study also selected sample sizes that are, on face value, proportionally large enough, relative to the number of available cases within each universe, to constitute representative samples. These sampling strategies will allow the generalisation of samples to the universes from which cases were drawn while also aiding in the maintenance of interpretive validity.

Second, to avoid the subjectivity introduced by manual coding the categorisation process was facilitated through computer-assisted programmes with preordained syntactical and semantic features. In particular, evidence of *Diction 5.0* (Hart, 2003) as a method of analysing semantic content has been used extensively in academic research to analyse narrative discourse including Bligh et al. (2003 and 2004), Bligh and Hess (2005a; 2005b), Hart (1984, 2000a, b), Hart and Gourgey (1998), Hart and Jarvis (1997), Ober et al. (1999) and Yuthas et al. (2002). As a textual analysis technique based on pre-existing search rules and algorithms *Diction 5.0* is systematic and reliable and thus, free from criticisms of researcher subjectivity and bias that might be levied against human coding (Davis, Piger and Sedor, 2005). In other words, the *intercoder reliability* or the extent, to which content classification produces the same results when the same text is coded repeatedly, is consistent as the categorises are fixed. *Diction 5.0* was designed for the analysis of political discourse and as such, is well-suited for analysing social narrative discourses which often share common themes with political discourse (e.g. feminism). In particular, the programme is designed to identify subtle aspects of language that even the trained eye might not readily perceive (Bligh et al, 2004) and thus, the measures of language obtained are likely to be better calibrated than those subjectively determined by researchers. Finally, the validity of *Diction 5.0* as a computerised content analysis programme has been attested by independent research (e.g. Frey et al, 1991; Morris, 1994; West, 2001).

In relation therefore to validity and reliability, the objectivity of *Diction 5.0* analysis is a particular strength. Its automated nature, both for coding and quantification, renders it attractive as a research instrument. The overview presented in this section is indicative of strength in face validity. In particular, the specific theoretical basis of the approach in linguistic semantics, the fact that the approach is well established in the applied linguistics literature and the independent attestation of the approach all point to strength in face validity.

Finally, in the write-up study two included a detailed discussion of the context of discovery and the context of justification, including computer aided programmes as they pertain to this research. This study therefore claims *procedural objectivity*. Thus by way of summary, through procedural objectivity and transparency and the removal of human coding wherever possible in making known the concept categories this research claims validity and reliability.

APPENDIX 1.6:

LITERATURE SAMPLE

Magazine:	Year:	Article:	Descriptor:	Rationale:
Athletics Weekly	2006	Bels Keep League Lead	League Report	To appreciate coverage of men's athletics.
Athletics Weekly	2006	Brits Hammered by Best of Europe	European Cup Report	To appreciate coverage of women's athletics.
Athletics Weekly	2006	Brits Sweat but get Third	European Cup Report	To appreciate coverage of men's athletics.
Athletics Weekly	2006	Malaga Athletes Return	League Report	To appreciate coverage of women's athletics.
Athletics Weekly	2006	The Pride of Hull AC	Club Report	To advance an inside Club view of men and women's athletics.
Athletics Weekly	1976	English Schools Championships – Girls Events	Championship Report	To appreciate coverage of women's (girls) athletics.
Athletics Weekly	1976	Men's 5000 Metres (Final)	Olympic Report	To appreciate coverage of men's athletics.
Athletics Weekly	1976	My Olympic Destiny	Olympic Biography	To understand the psychological requirements of a male athlete.
Athletics Weekly	1976	Women's 1,500 Metres (Heat)	Olympic Report	To appreciate coverage of women's athletics.
Athletics Weekly	1976	Women's 200 Metres (Final)	Olympic Report	To appreciate coverage of women's athletics.
Woman's Weekly	2006	A Snug Fit	Short story	To appreciate societal norms.
Woman's Weekly	2006	A Whole Life in Modelling	Biography	To appreciate women's career choice and attitudes.
Woman's Weekly	2006	Echoes	Short story	To appreciate societal norms.
Woman's Weekly	2006	Get Active!	Biography	To appreciate the successful entrepreneurial business skills of Anita Roddick.
Woman's Weekly	2006	Jaguar	Short story	To appreciate societal norms.
Woman's Weekly	2006	Next of Kin	Short story	To appreciate societal norms.
Woman's Weekly	2006	A Nude Awakening	Short story	To appreciate societal norms.
Woman's Weekly	2006	Let Battle Commence	Short story	To appreciate societal norms.
Woman's Weekly	2006	Thanks for the Memory	Short story	To appreciate societal norms.
Woman's Weekly	1978	Dreams to Sell	Short story	To appreciate societal norms.

Weekly				
Woman's Weekly	1978	The Day After Tomorrow	Short story	To appreciate societal norms.
Woman's Weekly	1978	The Joy of Giving	True narrative	To appreciate women and money matters.
Woman's Weekly	1978	Man of the Desert	Short story	To appreciate societal norms.
Woman's Weekly	1976	Unwind Yourself	Beauty Routine	To appreciate the importance of health and beauty to women.
Woman's Weekly	1976	A Wife for Charles	Short story	To appreciate societal norms.
Woman's Weekly	1976	Almost Gemini	Short story	To appreciate societal norms.
Woman's Weekly	1976	For Better or Worse	True narrative	To appreciate the role of women in marriage.
Woman's Weekly	1976	Viking Song	Short story	To appreciate societal norms.
Woman's Own	2006	A Good Man is Hard to Find ...	True stories	To identify with the role of women in relationships.
Woman's Own	2006	Branded a Little Monster	True story	To appreciate the psychological strength of women.
Woman's Own	2006	Reunited to Help Our Cancer Pal	True story	To appreciate the psychological strength of women.
Woman's Own	2006	The Movie Star	Short story	To appreciate societal norms.
Woman's Own	2006	My looks put People in a Spin	Biography	To appreciate the importance of health and beauty to women.
Woman's Own	2006	The Triplets with Two Mums and One Dad	True Story	To appreciate the changing role of men.
Woman's Own	2006	This Little Girl was Sent to Save Me.	True Story	To appreciate the psychological strength of women.
Woman's Own	1974	How to Make a New Start	True stories	To identify the changing family structure.
Woman's Own	1974	Romance in the Air	Short story	To appreciate societal norms.
Woman's Own	1974	The Curse of the Kings	Short story	To appreciate societal norms.
Woman's Own	1974	Why I took the Plunge	Biography	To identify with roles of man and wife.
Woman's Own	1973	Invitation to Love	Short story	To appreciate societal norms.
Woman's Own	1973	One Perfect Day	Short story	To appreciate societal norms.
Woman's Own	1973	The Way I See It	True story	To provide insight into how women are expected to behave.
Woman's Own	1973	Who Works Harder – A Man or a Woman?	True narrative	To appreciate the duality of the sexes.

APPENDIX 1.7:

SPAMS SCORES

SPAMS scores for Athletic's Weekly magazines.

PICTORIAL STUDY I

SPAMS Athletics Weekly	Athletic Setting 2006	Athletic Setting 1976	Social Setting 2006	Social Setting 1976	Total/% 2006	Total/% 1976	Difference
Female	61	2	1	0	62 (46%)	2 (12%)	+ 34%
Male	71	15	2	0	73 (54%)	15 (88%)	- 34%
Totals	132 (98%)	17 (100%)	3 (2%)	0	135 (100%)	17 (100%)	
Difference		- 2%		+ 2%			
British	103	2	3	0	106 (79%)	2 (12%)	+ 67%
International	29	15	0	0	29 (21%)	15 (88%)	- 67%
Totals	132 (98%)	17 (100%)	3 (2%)	0	135 (100%)	17 (100%)	
Difference		- 2%		+ 2%			
Athlete	132	17	3	0	135 (100%)	17 (100%)	0%
Non-athlete	0	0	0	0	0 (0%)	0 (0%)	0%
Totals	132 (98%)	17 (100%)	3 (2%)	0	135 (100%)	17 (100%)	
Difference		- 2%		+ 2%			
Active	126(57/69)	12	0	0	126 (93%)	12 (71%)	+ 22%
Passive	6	5	3	0	9 (7%)	5 (29%)	- 22%
Totals	132 (98%)	17 (100%)	3 (2%)	0	135 (100%)	17 (100%)	
Difference		- 2%		+ 2%			
A3	0	0	0	0	0 (0%)	0 (0%)	0%
A4	2	1	0	0	2 (2%)	1 (13%)	- 11%
A5	5	1	0	0	5 (5%)	1 (13%)	- 8%
A6	41	6	1	0	42 (45%)	6 (75%)	- 30%
Passport	45	0	0	0	45 (48%)	0 (0%)	+ 48%
*Totals	93 (99%)	8 (100%)	1 (1%)	0	94 (100%)	8 (100%)	
Difference		- 1%		+ 1%			

Percentages were rounded up to two decimal places.

*Totals for pictures.

General Information: 2006 1976

Total number of photographs 94 8

Total number of magazines 3 1

SPAMS scores for Woman's Weekly magazines.

PICTORIAL STUDY II

SPAMS	Work Setting		Domestic Setting		Social Setting		Total/%	Total/%	Diff.
Woman's Weekly	2006	1976-78	2006	1976-78	2006	1976-78	2006	1976-78	
Female	3	4	11	11	28	15	42 (91%)	30 (83%)	+ 8%
Male	0	4	0	0	4	2	4 (9%)	6 (17%)	- 8%
Total	3 (7%)	8 (22%)	11 (24%)	11 (31%)	32 (70%)	17 (47%)	46 (100%)	36 (100%)	
Difference		- 15%		- 7%		+ 23%			
Shopping	0	0	0	5	1	0	1 (2%)	5 (17%)	- 15%
Eating	0	0	1	1	1	0	2 (5%)	1 (3%)	+ 2%
Relaxing	0	0	9	0	21	14	30 (71%)	14 (47%)	+ 24%
Exercising	0	0	1	0	5	1	6 (14%)	1 (3%)	+ 11%
Working	3	4	0	5	0	0	3 (7%)	9 (30%)	- 23%
*Total	3 (7%)	4 (13%)	11 (26%)	11 (37%)	28 (67%)	15 (50%)	42 (100%)	30 (100%)	
Difference		- 6%		- 11%		+ 17%			
Active	3	4	10	11	0	0	13 (31%)	15 (50%)	- 19%
Passive	0	0	1	0	28	15	29 (69%)	15 (50%)	+ 19%
*Total	3 (7%)	4 (13%)	11 (26%)	11 (37%)	28 (67%)	15 (50%)	42 (100%)	30 (100%)	
Difference		- 6%		- 11%		+ 17%			
A3	0	0	0	0	0	0	0 (0%)	0 (0%)	
A4	0	3	1	2	1	4	2 (5%)	9 (36%)	- 31%
A5	1	0	0	1	7	2	8 (18%)	3 (12%)	+ 6%
A6	2	0	7	6	5	7	14 (32%)	13 (52%)	- 20%
Passport	2	0	5	0	13	0	20 (45%)	0 (0%)	+ 45%
**Total	5 (11%)	3 (12%)	13 (30%)	9 (36%)	26 (59%)	13 (52%)	44 (100%)	25 (100%)	
Difference		- 1%		- 6%		+ 7%			

Percentages were rounded up to two decimal places.

* Totals excluding male population.

** Totals for pictures.

General Information: 2006 1976-78

Total number of photographs 44 25

Total number of magazines 2 2

SPAMS scores for Woman's Own magazines.

PICTORIAL STUDY III

SPAMS	Work Setting	Work Setting	Domestic Setting	Domestic Setting	Social Setting	Social Setting	Total/%	Total/%	Diff.
Woman's Own	2006	1973-74	2006	1973-74	2006	1973-74	2006	1973-74	
Female	4	3	36	9	43	12	83 (71%)	24 (77%)	- 6%
Male	13	3	1	1	20	3	34 (29%)	7 (23%)	+ 6%
Total	17 (14%)	6 (19%)	37 (32%)	10 (32%)	63 (54%)	15 (48%)	117 (100%)	31 (100%)	
Difference		- 5%		0%		+ 6%			
Shopping	0	0	0	0	15	4	15 (18%)	4 (17%)	+ 1%
Eating	0	0	4	1	2	0	6 (7%)	1 (4%)	+ 3%
Relaxing	0	0	14	2	18	7	32 (39%)	9 (38%)	+ 1%
Exercising	0	0	2	0	8	1	10 (12%)	1 (4%)	+ 8%
Working	4	3	16	6	0	0	20 (24%)	9 (38%)	- 14%
*Total	4 (5%)	3 (13%)	36 (43%)	9 (38%)	43 (52%)	12 (50%)	83 (100%)	24 (100%)	
Difference		- 8%		+ 5%		+ 2%			
Active	4	3	18	6	23	5	45 (54%)	14 (58%)	- 4%
Passive	0	0	18	3	20	7	38 (46%)	10 (42%)	+ 4%
*Total	4 (5%)	3 (13%)	36 (43%)	9 (38%)	43 (52%)	12 (50%)	83 (100%)	24 (100%)	
Difference		- 8%		+ 5%		+ 2%			
A3	0	0	0	0	0	0	0 (0%)	0 (0%)	
A4	0	0	1	1	5	5	6 (7%)	6 (23%)	- 16%
A5	0	1	6	1	7	2	13 (14%)	4 (15%)	- 1%
A6	3	2	15	8	14	6	32 (35%)	16 (62%)	- 27%
Passport	2	0	16	0	23	0	41 (45%)	0 (0%)	+ 45%
**Total	5 (5%)	3 (12%)	38 (41%)	10 (38%)	49 (53%)	13 (50%)	92 (100%)	26 (100%)	
Difference		- 7%		+ 3%		+ 3%			

Percentages were rounded up to two decimal places.

* Totals excluding male population.

** Totals for pictures.

General Information:

	2006	1973-74
Total number of photographs	92	26
Total number of magazines	2	2

SPAMS scores for Woman's magazines.

PICTORIAL STUDY IV

SPAMS	Work Setting	Work Setting	Domestic Setting	Domestic Setting	Social Setting	Social Setting	Total/%	Total/%	Diff.
Magazines Combined	2006	1973-78	2006	1973-78	2006	1973-78	2006	1973-78	
Female	7	7	47	20	71	27	125 (77%)	54 (81%)	- 4%
Male	13	7	1	1	24	5	38 (23%)	13 (19%)	+ 4%
Total	20 (12%)	14 (21%)	48 (29%)	21 (31%)	95 (58%)	32 (48%)	163 (100%)	67 (100%)	
Difference		- 9%		- 2%		+ 10%			
Shopping	0	0	0	5	16	4	16 (13%)	9 (17%)	- 4%
Eating	0	0	5	2	3	0	8 (6%)	2 (4%)	+ 2%
Relaxing	0	0	23	2	39	21	62 (50%)	23 (43%)	+ 7%
Exercising	0	0	3	0	13	2	16 (13%)	2 (4%)	+ 9%
Working	7	7	16	11	0	0	23 (18%)	18 (33%)	- 15%
*Total	7 (6%)	7 (13%)	47 (38%)	20 (37%)	71 (57%)	27 (50%)	125 (100%)	54 (100%)	
Difference		- 7%		- 1%		+ 7%			
Active	7	7	28	17	23	5	58 (46%)	29 (54%)	- 8%
Passive	0	0	19	3	48	22	67 (54%)	25 (46%)	+ 8%
*Total	7 (6%)	7 (13%)	47 (38%)	20 (37%)	71 (57%)	27 (50%)	125 (100%)	54 (100%)	
Difference		- 7%		- 1%		+ 7%			
A3	0	0	0	0	0	0	0 (0%)	0 (0%)	
A4	0	3	2	3	6	9	8 (6%)	15 (29%)	- 23%
A5	1	1	6	2	14	4	21 (15%)	7 (14%)	+ 1%
A6	5	2	22	14	19	13	46 (34%)	29 (57%)	- 23%
Passport	4	0	21	0	36	0	61 (45%)	0 (0%)	+ 45%
**Total	10 (7%)	6 (12%)	51 (38%)	19 (37%)	75 (55%)	26 (51%)	136 (100%)	51 (100%)	
Difference		- 5%		+ 1%		+ 4%			

Percentages were rounded up to two decimal places.

* Totals excluding male population.

** Totals for pictures.

General Information:	2006	1973-78
Total number of photographs	136	51
Total number of magazines	4	4

APPENDIX 1.8:
PICTURES

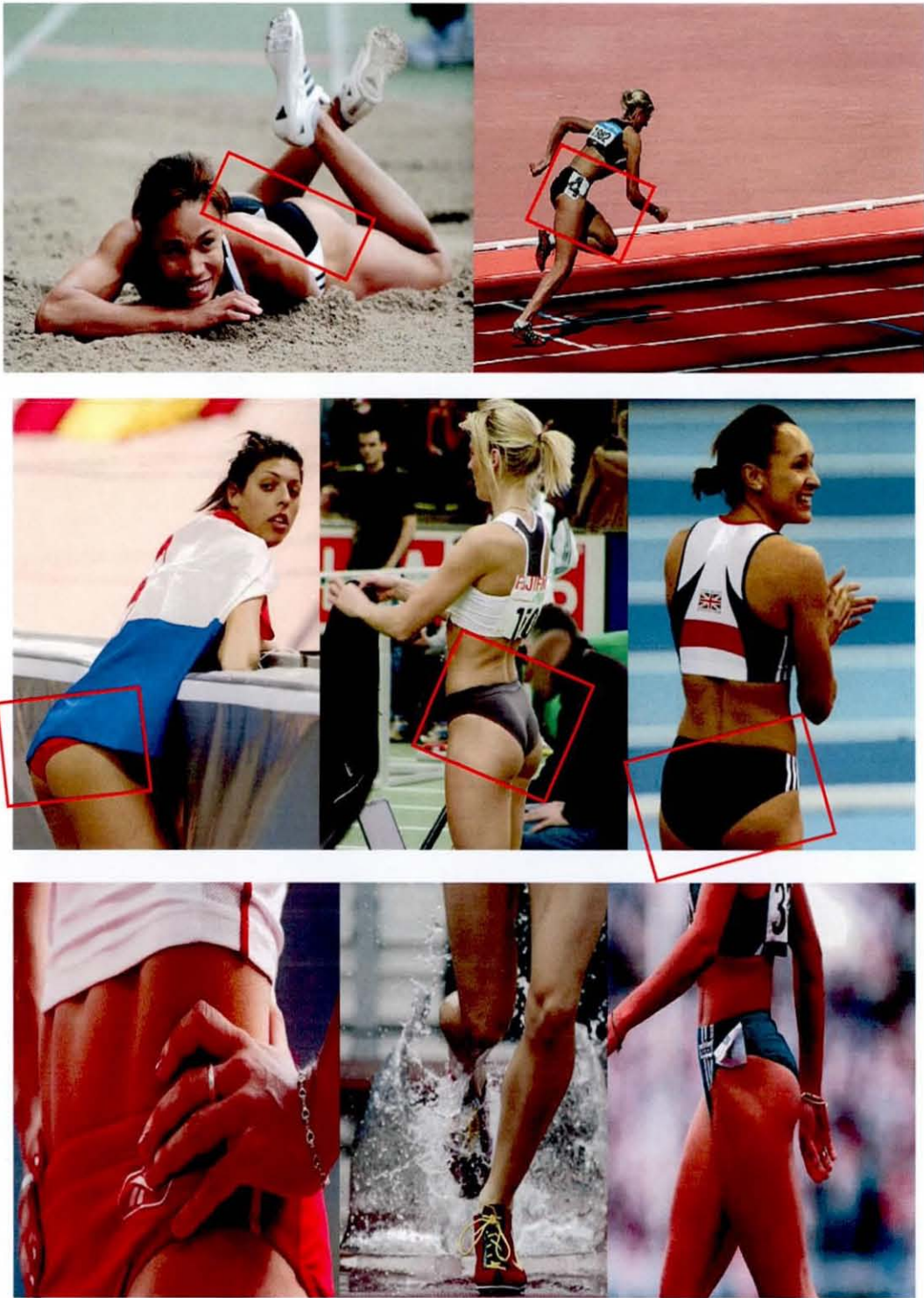
A Cut Above



Source: Images courtesy of Athletics Weekly and Universal Sports
The red boxes highlight the recent trend towards tight and revealing sportswear that highlights the sexualised body. Women are expected to perform in bikini strips cut high above the thigh with mid-rift exposed.

Performing Femininity

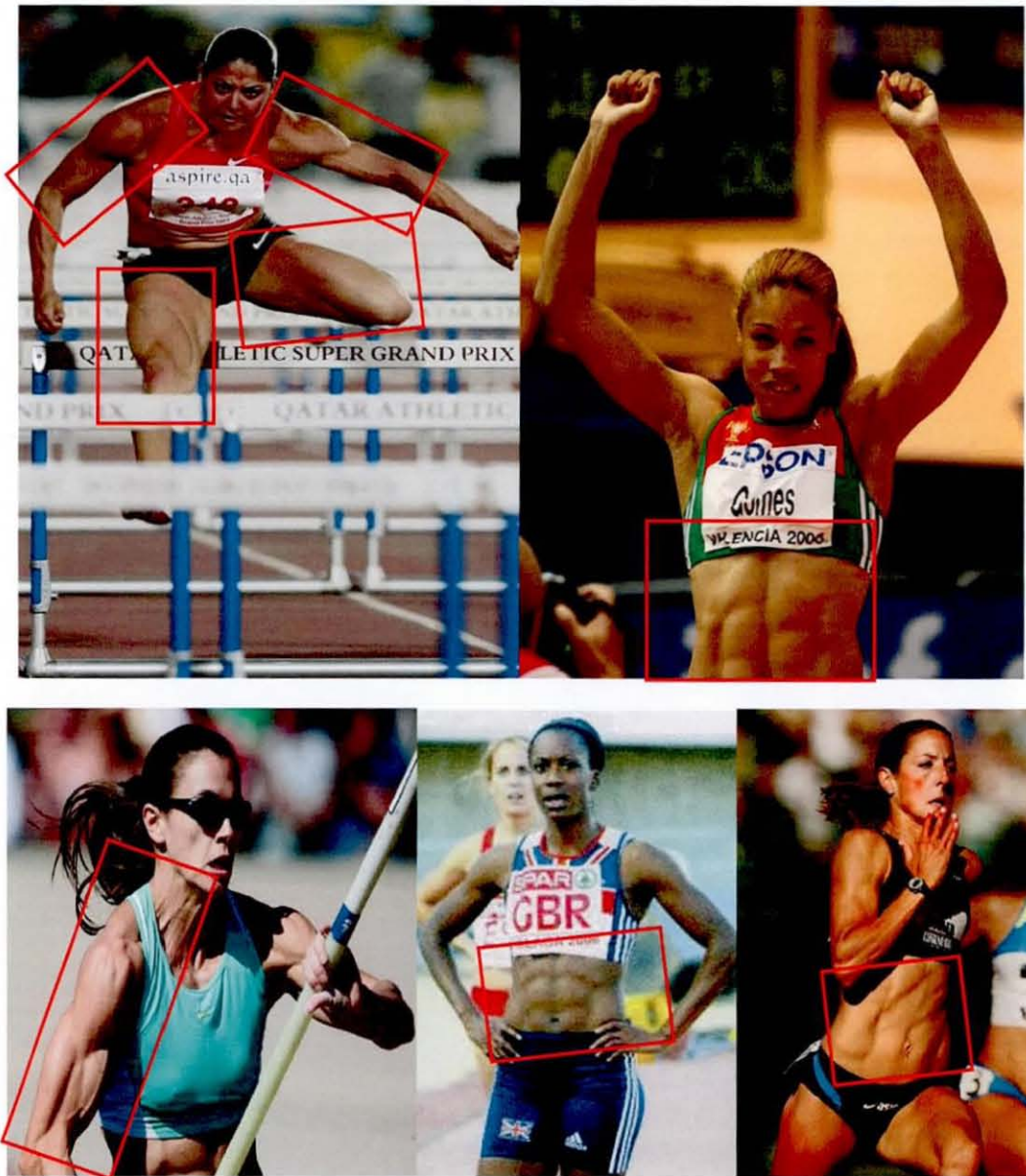




Source: Images courtesy of Athletics Weekly and Universal Sports¹².
The red boxes indicate the likely subtle camera angles that emphasise the focus on the athletes' bodies and their sexuality, rather than performance. The 'male gaze' as Berger (1972) denoted.

¹² It is important to note that these pictures are taken exactly as published – they have not been cropped.

The Masculine Woman



Source: Images courtesy of Athletics Weekly
The red boxes highlight the photographic imagery that denigrates women by conjoining images of female ‘masculinity’ with images (as previous) of female ‘femininity’.

The Other Half





Source: Images courtesy of Woman's Own and Woman's Weekly publications.
In the more recent images the shackles of domesticity and clone of housewife have been removed to reveal a more relaxed, glamorous, self conscious, independent woman.

Icons of Success



Source: Images courtesy of Woman's Own and Women's Weekly publications.
Endless processions of idealised femininity permits today's woman to make their body icons of success.

APPENDIX 1.9:

INTERVIEW VALIDITY AND OBJECTIVITY

The representative sample of athletes were required to undertake an interview. But as Bryman and Burgess (1994) caution, given the centrality to qualitative analysis it is necessary to ensure the interview is both valid and objective. Therefore we need to work out and demonstrate just what their salience is to this analysis.

The apparent distinction between them may be seen in these terms: "validity refers to the extent to which an empirical measure adequately reflects meaning of the concept under consideration" (Babbie, 1990:133). Objectivity refers to "the view that the truth of a thing is independent from the observing subject" (Chenail, 1995:161). In effect, both definitions refer to the extent to which the interviewer gains access to their respondent's knowledge and experience, and is able to infer the meaning that the respondent intended. But the legitimacy of this distinction is open to serious question: how can it be established that an instrument is measuring what it is supposed to measure? And, since it is unclear whether, and how, any 'knowing subject' can achieve genuine objectivity, is objectivity intersubjective? The answer to the first question is primarily based upon the logical link between the interview questions and the objectives of the research. Although, content validity is judged on the basis of the extent to which statements or questions represent the issue they are supposed to measure (Mitchell, 1996), the researcher judges them. Thus, judgement is based upon subjective logic; hence, no objectivity can be claimed. The second question is therefore extremely important.

Discussions on objectivity lead one to as many dichotomies as may be revealed when considering the use of both qualitative and quantitative approaches: objective/subjective; biased/unbiased; reality dependent/reality independent. It is claimed that qualitative approaches to research lack objectivity due, in particular, to the human interaction inherent in the interview situation, and concern is often raised regarding the subjectivity of qualitative research (Eisner, 1993; Philips, 1993). As Kumar (1999) testifies it is not difficult to find examples of obvious errors based on

such glib approach to research. Unsurprisingly therefore, most researchers take quantitative method as 'more objective' probably as a result of its traditional links with scientific method and positivism (Smith and Heshusius, 1986). But, as will be reasoned, this is a basic assumption. Indeed questions of objectivity become one of determining which conception provides the fairest reflection of the interview data.

Firstly, there is objectivity as defined by Kvale (1996), a 'freedom from bias' referring to dependable knowledge, checked, controlled and undistorted by personal bias and prejudice. This conception of objectivity implies a 'craftsmanship' in the research process; quite simply, following good research practice. This research aimed to demonstrate Kvale's considerations in its design. A second conception is the more positivistic version whereby for positivists the idea that responses might be an artefact of the interview setting or its conduct would challenge their validity. The aim is to generate data, which hold independently of the setting and the interviewer. They are keen on standardised protocol. Clearly it may appear easier to critique the objectivity of a sampling technique, a statistical method chosen and the degree of confidence accepted. Indeed by definition and practice the qualitative inquirer cannot claim to be 'detached' from the research in the same way that the quantitative inquirer may claim to be. But Scriven (1972) has argued that quantitative approaches can be equally susceptible to subjectivity. The ways in which questionnaires are worded are clearly open to subjectivity; all statistical data are based upon someone's appreciation of what to measure and how to measure it (Patton, 1987). As a result, this research cannot accept the validity of such a conception. Eisner (1993) also discussed the feasibility of ontological objectivity, or seeing things as they really are. But Kant (as cited in Roberts, 2000) claimed that only the phenomena or things as they appear are known. Ontological objectivity is thus hopeless to achieve (Philips, 1993). As an alternative, procedural objectivity, an approach that eliminates, or aspires to eliminate, the scope for personal bias in research has been proposed. On the most basic level, procedural objectivity serves as a meaningful guide to the critical approach of the research process undertaken, and where such is discussed and given; confidence in claims can be advanced. This research aims to present all considerations in its design to this end.

A more sophisticated approach to objectivity is that of subjectivity as intersubjectivity. Here, the interview is seen as more akin to the social world: the interview is sensitive to, and reflects the nature of the 'object' investigated. It is as if the 'objects speak'. As Kvale (1996) states with a conception of intersubjectivity, the interview attains a position, which involves conversation and negotiation of meaning between the interviewer and his or her subjects. The essence of the interview method is this intersubjectivity – intersubjective interaction. It is as Usher (1996:22) so eloquently expressed “a *fusion of horizons* that constitutes a standard of objectivity which can function as an alternative to the objectivity of positivist/empiricist epistemology” (See also the discussion on Hermeneutics by Gadamer, 1975). A fusion of horizons is the outcome of intersubjective agreement where different and conflicting interpretations are harmonised. Comparing and contrasting various interpretations can achieve a consensus despite differences – indeed because of differences. Intersubjective understanding is therefore a learning experience involving ‘dialogue’ (Usher, 1996) between ourselves as researchers and that which we are trying to understand. It is, as Kvale (1996:66) echoed, a “dialogical conception of truth” as the medium of discourse is language, which is neither objective or universal, nor subjective or individual, but intersubjective (as cited in Roberts, 2000). This research appreciates the intersubjectivity offered by the interview procedure.

It turns out, then, that what is crucial for the objectivity of any enquiry – whether it be qualitative or quantitative – is the ‘critical spirit’ (Philips, 1993) in which it is carried out. Objectivity will be offered here in its procedural form, where this research will present its methods, rationale and approach for inspection for the purpose of others to determine any level of bias and the acceptability of the procedures.

Overcoming interview quality issues:

This approach to data collection is extremely useful as evidenced; however awareness of the factors that may affect the semi-structured interview outcomes, now need appreciation within this study’s design. There may be attempts at *rationalisation* (Gilbert, 1993). Respondents may offer only logical reasons for their actions, withholding evaluative or emotional reasons, which may give a truer insight. Gilbert

(1993) notes that *communication* may be problematic, as many people are not used to putting their feelings into words. Respondents may also fear being *shown-up* (Gilbert, 1993). People often avoid describing aspects of behaviour or attitude that are inconsistent with their preferred self-image; questions about such things as personality balance or motivational aspirations are pertinent examples. Respondents may tend to *overpoliteness* to the interviewer (Gilbert, 1993). Being shy or overanxious to impress can equally distort response. A common problem here is where respondents give those answers they anticipate the interviewer wants to hear. Of course the interviewer may also be at fault: interviewer *bias*, the perceived or actual *position* of the interviewer, as well as the nature of the questions may reveal concerns about interview (in)effectiveness (Saunders, et al, 2003).

There are several solutions to these obstacles to interview ineffectiveness. The manner of the interviewer is important. A relaxed and unselfconscious interviewer puts respondents at ease (Gilbert, 1993). Research on interviewer effects suggests that interviewers should not be drawn from either extreme of the social scale, that their demeanour should be neither condescending nor deferential, that they should display interest without appearing intrusive (cf. Gilbert, 1993; Healey and Rawlinson, 1994). Another broad tactic is to personalise the discussion to get at underlying attitudes (Gilbert, 1993). For example, do not simply talk about 'athletic focus' in the abstract, ask respondents about their experiences in athletic competition. However, this advice is rather broad. Therefore this research followed the advice of much of the literature cited and devised more 'focused' steps to ensure that such affecting variables were minimised:

- 1) *Interviewer and Interviewee bias*: The sources of bias are the characteristics of the interviewer, the characteristics of the respondent, and the substantive content of the questions. More particularly, these will include: the attitudes and opinions of the interviewer; a tendency for the interviewer to see the respondents in their own image; a tendency for the interviewer to seek answers that support their preconceived notions; misperceptions on the part of what the respondent is saying; and misunderstandings on the part of the respondent of what is being asked

(Cohen and Manion, 1994). Various writers (cf. Cohen and Manion, 1994; Easterby-Smith, et al, 2002; Healey and Rawlinson, 1994; Saunders, et al, 2003) have suggested the following as means of reducing bias: careful formulation of questions so that the meaning is crystal clear; interview rehearsal so that an interviewer is more aware of the possible problems; provision of background information to the research to assist understanding and establish credibility; and sometimes by matching interviewer characteristics with those of the sample interviewed. In response, this research employed a number of measures to guard against the entry of bias: First, pilot interviews with athletes from University College Birmingham who were provisionally piloted with the questionnaire and later Bromsgrove Olympic Running Club were observed and recorded by Dr. Andrew Roberts (Head of Research, at UCB) with the intention to standardise the verbal, non-verbal and body language interaction between interviewer and interviewee. This gave rise to emphasis upon neutralising such variables as much as possible. Second, each respondent during the questionnaire stage was invited to provide for additional commentary at interview. After agreement for the interview to take place, the interviewee was reminded of informed consent, and reassured – noting confidentiality. Third, the ‘warm-up’ phase (*after* Kvale, 1996; Saunders, *et al*, 2003) of the interview included a brief background to the research – omitting any reference to the ‘technical jargon’ i.e. instrumentality, expressiveness, psychological androgyny. Finally, emphasis was put on the interviewer having a keen interest in athletics, and upon the interviewers own athletic background. This was aimed at achieving credibility in the subject and in the subject context.

- 2) *Attentive listening.* The purpose of a semi-structured interview is to understand the participant’s explanations and meanings. This type of interaction is not typical of many of the conversations normally engaged in, where those involved often compete to speak rather than concentrate on listening (Saunders, et al, 2003). Therefore, as Saunders, et al, (2003) warns it is important to recognise that different skills are required in this kind of interaction. Careful listening should allow identification of comments that are significant to the research topic (Torrington, 1991). It will of course be necessary to explore and probe explanations and meanings, but also provide the interviewee with reasonable time

to develop their responses (cf. Easterby-Smith, et al, 2002; Ghauri and Gronhaug, 2002; Robson, 2002). Conducting the pilot interview allowed for the opportunity to concentrate on listening. This research therefore endorsed Torrington's (1991) approach: look-out for signals, spend the time needed to listen, build understanding and deliberately avoid projecting personal views, which would divert or compete with the interviewee.

- 3) *Recording data:* The need to create a full record of the interview as soon as possible after it has taken place is crucial to control bias and to produce reliable data for analysis (Healey, 1991; Healey and Rawlinson, 1994; Robson, 2002). Recording information is a complicated issue, however (Easterby-Smith, et al, 2002; Ghauri and Gronhaug, 2002; Healey and Rawlinson, 1994). Recording may range from an attempt to create a verbatim account to a diagrammatic style that records key words and phrases or perhaps to tape-record the interview. In the event of tape-recording, Healey and Rawlinson (1994) advises an interviewer to offer an explanation as to why the preferred use of recorder over more traditional pencil and paper methods. Furthermore, permission should always be sought to tape-record an interview (Healey and Rawlinson, 1994). Ghauri and Gronhaug (2002) advised to make notes even when using a tape recorder so as to distract the interviewee's attention from the recording device and assist in the process of interviewer comprehension. Following the discussion this research considered favouring a combination of these styles. Once permission had been granted, a tape-recorder was discreetly placed to one side. On completion verbatim transcripts were written up and used in the analysis.
- 4) *Quality of questions:* What will happen if a question is asked or is not asked? How should the question be asked? What will the effects be? What effects are desired? Researchers agree that the style and content of the questions affect the interview process (Easterby-Smith, et al, 2002; Tomm, 1988; Tuckman, 1972). The pilot interview allowed for various questions to be tried and tested. This trial and error process gave rise to short, specific and unambiguous questions to be constructed. The interviews aimed for the extent of spontaneous, rich, specific and relevant answers from the interviewee (Robson, 2002; Saunders, et al, 2003). To achieve such it was considered that the shorter the interviewer's questions then the greater

opportunity for candid discussion on the respondent's part. Careful verification of the interviewer's interpretations of the respondent's answers throughout the interview was sought. Each respondent was interviewed on the theme of his or her athletic experiences. As identified, semi-structured interviews were employed so as to ensure that the interviews were able to be replicated in style and format across the sample; this would allow increased validity in comparison and contrast of all responses.

In sum, Tuckman (1972) has succinctly reviewed the procedures to adopt at the interview itself, and which provide the cynosure of this research. Tuckman (1972) writes, at the interview, the interviewer should brief the respondent as to the nature or purpose of the interview (being as candid as possible without biasing responses) and attempt to make the respondent feel at ease. The interviewer should explain the manner in which the interview will be recorded, and if plans are to tape-record, the respondents permission should be sought. At all times, an interviewer must remember that the purpose is data collection and try not to let personal biases, opinions, or curiosity affect proceedings. It is important that the interviewer should not deviate from the interview format and schedule although many schedules will permit some flexibility in choice of questions. The respondent should be kept from rambling away from the essence of a question, but not at the sacrifice of courtesy.

It seems, then, that the concerns surrounding the correspondence between interviewer and interviewee and between the interrelated use of verbal and non-verbal language are tractable. Indeed most technical problems have been overcome by interviewer experience, interviewee assurance, and careful question design and probing.

Interview choice and design:

Much has been written on the topic of different types of interview. For example, Patton (1980) distinguishes three main types of interview: the informal conversational interview; the general interview guide approach and the standardised open-ended interview. Fielding (1996b) uses the terms 'standardised', 'semi-standardised' and 'non-standardised' and is similar to the typology Patton describes. In similar vein, Fontana

and Frey (1994) use a three-way classification of structured, semi-structured and unstructured interviewing. By comparison, there appears to be many different typologies, although on closer examination each set of typologies differs only by appellation. Even so, different types of interviews have different purposes, which type should be used? At this point study four follows the advice of Gilbert (1993), if you are on unfamiliar territory a more flexible approach is best. Essentially, where it is necessary for the researcher to understand the reasons for the decisions that your research participants have taken, or to understand the reasons arising from implicit attitudes and opinions, it will be necessary to conduct a qualitative interview (Saunders, et al, 2003).

Concomitantly, the use of semi-structured interviews was probably the most obvious choice of research to undertake because of its subtle approach in ensuring that the ambiguity of the subject matter and the themes that have emerged as important are fully comprehended and discussed. The semi-structured interview utilises techniques from both structured and unstructured interviewing which therefore allows a thematic process to be followed whilst at the same time enable the interviewer to have more latitude to probe beyond the answers and enter into dialogue with the interviewee. The nature of the method is best summarised by Bryman (1989) who expounds the semi-structured interview can probe an issue in depth and the aim is to elicit respondent's ways of thinking about the issue with which the researcher is concerned. Such relatively semi-structured interviewing, whereby the qualitative researcher uses a schedule, but recognises that departures will occur if interesting themes emerge from what respondents say in order to get their versions of things. This means whereby adopting a phenomenological approach, greater understanding to the meanings that respondents ascribe can be deduced. In other words, interviews may use words or ideas in a particular way, and the opportunity to probe these meanings will add significance and depth to the data obtained.

As well as the typology based on the degree of standardisation there is one other preliminary distinction to make. These types of interview can be administered either one-to-one or to a group. In the former, respondents are seen individually, while in

the latter the interviewer, or a group leader, guides the discussion among a small group of respondents. The specific practical issues (e.g. geographical spread; accessibility; etc.) which need to be considered in interviewing successful British club affiliated 100 and 200metre athletes, past and present makes one-to-one interviewing the obvious choice.

Apart from the difficulty of trying to identify the most appropriate type and administration of interview the problem of question asking is at the centre of interviewing (Punch, 1998). First, the matter of question format: how is a question to be phrased or organised? Questions need to be phrased clearly, so that the interviewee can understand them, and should be posed in a neutral voice (Saunders, et al, 2003). Easterby-Smith, et al (2002) point out that the use of open questions should assist in avoiding bias. Gilbert (1993) too believes the questioning should be as open-ended as possible in order to encourage the interviewee to provide an extensive and developmental answer and may be used to gain spontaneous information about attitudes and actions, rather than a rehearsed position. The objective is that the discussion be as frank as possible. Indeed Tuckman (1972) suggests that by making the purpose of questions less obvious, the indirect approach is more likely to produce frank and open responses. These can then be followed up by the use of appropriately worded probing questions. As Torrington (1991) explains, when an open question does not reveal a relevant response, the researcher may also probe the area of interest by using a supplementary question that finds a way of rephrasing the original question. The use of these types of question helps the researcher to explore the topic and to produce a fuller account (Saunders, et al, 2003). Long questions or those that are really made up of two or more questions should also be avoided if a response to each aspect of interest is to be obtained (Robson, 2002). Questions should also avoid too many theoretical concepts or jargon since respondents understanding of terms may vary from that intended (Kumar, 1999). Where theoretical concepts or specific terminology need to be used, ensure the interviewee understands the intended meaning (Easterby-Smith, et al, 2002; Ghauri and Gronhaug, 2002). After careful consideration in construction, it was decided that any questions making reference to 'psychological androgyny' or other ambiguous jargon (e.g. instrumentality, expressiveness) should

reflect that of the terminology set within the questionnaire. Hence, making a clear shift toward a more workable question, without altering the meaning, or indeed the outcome of the research. In addition, Healey and Rawlinson (1994:138) suggest that "it is usually best to leave sensitive questions until near the end of an interview because this allows a greater time for the respondent to build up trust and confidence in the researcher". Once this position of trust has been reached sensitive questions are more likely to be answered. Ghauri and Gronhaug (2002) cautions that, the wording of these deserve very particular attention in order to avoid any negative inferences related to, for example, measurement of masculinities or femininities. Care taken over the exploration of sensitive questions should assist towards the compilation of a fuller and more reliable account. The applicability of these points, and of much of the literature cited, is more likely to produce frank and open discussion.

APPENDIX 2.0:
INTERVIEW TRANSCRIPTS

ROLAND HEGARTY PHD INTERVIEW TRANSCRIPTS

Loughborough University, Loughborough, Leicestershire, LE 11 3TU, United
Kingdom. Telephone: +44 (0)1509 263171

Roland Hegarty

With

F52KB
(Transcript)

Record of Tape Recorded Interviewed

Transcribed by R. Hegarty

PERSON INTERVIEWED : F52KB

PLACE OF INTERVIEW : ATHLETICS CLUB

DATE OF INTERVIEW : 07th MARCH 2007

TIME COMMENCED : 19.20 HRS.

TIME CONCLUDED : 19.35 HRS.

DURATION OF INTERVIEW : 15 MINUTES

INTERVIEWER : ROLAND HEGARTY

OTHER PERSONS PRESENT : GENERAL PUBLIC

NUMBER OF PAGES : 4

TAPE NUMBER : 6

PROFILE : Previously represented Great Britain at the Commonwealth Games, World Indoor and Outdoor Championships and numerous international meets. Presently represents local Athletics Club at veteran's competition level.

(1) Why did you become an athlete?

I enjoyed running ...(Okay, how long have you been an athlete)? Ammm thirty-eight years laughs!

(2) In what way is/was being an athlete rewarding?

Important? (Rewarding). Rewarding ...ammm one good race sort of you know, when you achieve your goals that's probably rewarding (it's satisfying) yeah, yeah.

(3) What are the key attributes of a successful athlete?

Stay focused, work really hard, don't let things get in your way and don't ammm, I always feel that performance is very ammm related to external things, factors where you can perform well one week and perform badly another week so you need to believe in yourself and know that even if your perform badly one week that you can do it, you know that like six months of training if its there then you can do it. It may just be environmental factors.

(4) Do you feel your role, as an athlete is/was conflicting (e.g. professional/home-life)?

No I think it probably enriched it (how)? It gives you a focus abhh on what to base your life around ...yeah. Ammm probably not so focused now laughs chilling out a bit now you see. Ammm probably a few not so many years ago I was very, very focused ammm when I was sort of ammm racing internationally I was terribly focused. I mean things have to sort of slip by the waste side, you have to prioritise a lot then (so you would say that your social life and your other life's would have been secondary to your international career)? Definitely, yeah they have to be. I think athletes have to be very self-centred and tunnelled visioned yeah to get anywhere yeah.

(5) How demanding is/was the role of being an athlete?

I think it was probably most demanding at my peak (why was that)? Ammm I was an international athlete for about ten years so I trained twice a day, seven days a week for perhaps about ten years so obviously very demanding ...yeah.

(6) What do you understand by the term personal-fulfilment?

Fulfilling your own goals and ambitious.

(7) In what way does being an athlete offer personal-fulfilment?

I think you set yourself *ammm* your stall, you set your stall out what you want to achieve *abbb* and it doesn't necessarily have to be times or places *abbb* for me it was *abbb* well I competed internationally but is set myself out that I wanted to go to the Commonwealth Games and I achieved that so for me that was achievement, my personal-fulfilment. (*Are you as ambitious in athletics today as you were at your peak?*) Yeah, I'd say you re-define your goals but you're still ambitious *yeah, yeah*. I think you wouldn't continue in athletics if you weren't ambitious (*okay*).

(8) As you see it, is personal-fulfilment achieved differently by males and females?

I think women are a bit tougher than men *laughs (okay why?)* Mentally *ammm* I possible think that women sort of can *ammm* like I've had children and still manage to train and shuffle with work full-time and shuffle everything around. I don't think men, I think men probably get a little bit fazed by things, external factors that happen to them so they can't focus on their training. You know, things will knock them off their training whereas women are a bit more 'cause their use to juggling everything. (*Would it be fair to say from what you are saying that external influences have a greater impact on males than females?*) Yeah.

(*Thank you*)

