

# Women's Occupational Choice and Entry into Male-Dominated Occupations

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# Abstract

The research presented here is an investigation into women's occupational choice with specific reference to women in male-dominated occupations. Three main research areas are reviewed and evaluated : theories of occupational choice in general; theories of women's occupational choice; and theories pertaining to women's choice of and experiences in male-dominated occupations. An exploratory study was carried out into the gender-dominant occupational preferences of female and male students, using the theoretical framework of Bandura's self-efficacy theory. The main finding of this study was that self-efficacy expectations do not play a large part in explaining women's and men's preference for gender-typical occupations and reluctance to consider gender-atypical occupations. The main study takes a more global approach and investigates a large number of possible psychological and social determinants of women's occupational choice and entry into male-dominated occupations. The subjects in this piece of research were women employed in three types of male-dominated occupation : manual; non-manual; and transitional (occupations that are changing from male-domination to gender-neutrality). A group of women in non-manual female-dominated occupations was also included as a control group. The subjects participated in individual, semi-structured interviews and completed three questionnaires. The resulting data was subjected to both quantitative and qualitative analyses. Many diverse elements were found to influence women's occupational choice. Differences between women in different types of male-dominated occupation, in the antecedents to their entry into a male-dominated job and in their experiences at work, are discussed. A model representing women's occupational choice, with particular reference to women in male-dominated occupations, is proposed. Next the factors determining women's experiences in male-dominated areas of work are delineated. Finally suggestions for future research are put forward, and conclusions are drawn.

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## Errata

- page 24, line 13 delete 'of'
- page 26, line 8 insert 'between' after 'separation'
- page 31, line 13 delete first 'now'
- page 32, line 22 delete 'Turning now to', insert 'As far as' before 'further'
- page 35, line 19 delete first 'case'
- page 37, line 30 read as 'as' instead of 'a'
- page 61, line 13 insert 'be' after 'to'
- page 74, line 2 read as 'of' instead of 'or'
- page 76, line 19 insert 'out' after 'carried'
- page 80, line 3 read as 'do' instead of 'to'
- page 83, line 12 delete '.' and insert ',' after 'separate'
- page 83, line 15 read as 'life' not 'live'
- page 85, line 12 read as 'fail' instead of 'fails'
- page 93, line 2 read as 'do' instead of 'to'
- page 109, line 20 delete second 'however'
- page 129, line 22 read as 'Traditionals' instead of 'Traditions'
- page 139, line 5 read as 'feels' instead of 'fells'
- page 174, line 24 after 'value' read as 'the' instead of 'to'
- page 215, line 13 read as 'the' instead of the first 'they'
- page 242, line 22 read as 'our' instead of 'out'
- page 249, line 5 delete 'it'
- page 257, line 27 read as 'started' instead of 'starting'
- page 309, line 20 read as 'psychological' instead of 'psyhcological'
- page 312, line 28 read as 'workplace' instead of 'woprkplace'

# CHAPTER ONE

## Introduction and Overview of the Social Context of Women's Employment

The research presented in this thesis is an investigation into women's occupational choice with specific reference to women in male-dominated occupations<sup>1</sup>. The main questions the research endeavours to answer are as follows :

- 1 What psychological and social factors determine the type of occupation a woman enters ?
- 2 Are non-gender-specific theories of occupational choice adequate to explain women's occupational choice ?
- 3 Do gendered theories of occupational choice provide a satisfactory explanation of women's occupational choice ?
- 4 Can existing theories be integrated to provide an all-encompassing model of women's occupational choice or is it necessary to introduce new concepts or theories to fully explain women's

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<sup>1</sup> For definition and clarification of the main terms used in this thesis see Appendix A.

occupational choice ?

- 5 What psychological and social factors cause a woman to undertake a male-dominated occupation, in particular ?
- 6 When a woman works in a male-dominated occupation what is her experience in this type of employment, and which theories are best able to explain her experience ?
- 7 Finally, do women in different types of male-dominated occupation differ in terms of the factors underlying their occupational choice and in terms of their experiences at work ?

The questions outlined above are investigated taking a broadly psychological approach, although research from other disciplines, such as sociology, management studies, educational research and women's studies, is also drawn upon.

Women's employment today is influenced by, and is a reflection of, a large number of inter-connected economic, legislative, social and historical trends. The social context of women's employment is seldom mentioned in the psychological research literature, and when it is mentioned it typically remains unexamined, despite its undoubted influence. It is therefore important to place the present research within this wider context. Accordingly an overview of trends and issues pertinent to women's employment situation in the 1980's will be presented below.

The present labour force position of women has not been reached through a continuous process which simply sped up during the last twenty or thirty years (Lindley, 1988). Indeed throughout the twentieth century the extent and nature of women's employment has fluctuated markedly. These changes are the result of multiple and interacting forces including both *supply* factors such as women's availability for employment and *demand* factors like industry's need for women workers.

In the early years of the twentieth century a significant proportion of women were in paid employment - in 1911, 34 per cent of women were employed (Hunt, 1988a) - however employment was largely confined to working class women. The outbreak of the First World War did not immediately result in an influx of women into the war industry or into jobs previously done by men who had gone to war. By 1918, the peak of the war effort, the proportion of the female population in employment had risen to 37 per cent (Marwick, 1977). Women entered jobs in transport, in factories and on the land which would previously have been designated men's work. There was also a considerable increase in the number of nurseries during World War One.

The inter-war years witnessed a deterioration of women's position in the labour market and the percentage of women who were economically active fell to 32 per cent (Hunt, 1988a). A marriage bar existed throughout public and private industry and the endemic unemployment of the 1930's took its toll on women as well as men.

The Second World War brought about increases in female participation in the labour force. Compulsory registration for employment was introduced in 1941, conscripting women in certain age bands into military service or essential industry. Women went to work in traditionally male-dominated areas of employment such as the engineering industry, munitions production and agriculture. The proportion of women in employment during World War Two is estimated to be around 50 per cent (Hunt, 1988a). Nursery provision was increased seven-fold in just three years (Brannen & Moss, 1988). When the War was over the majority of the nurseries closed down. There was a shift to more negative social attitudes towards maternal employment. Many women wanted to start families now that their husbands had returned from military service. These and other factors led large numbers of women to return to the home. By 1947 the proportion of women in the labour force stood at 39 per

cent (Hunt, 1988a).

Post war reconstruction initiated the economic boom of the 'fifties and 'sixties. Over these two decades the proportion of women in employment steadily increased. This increase is almost entirely due to an increase in part-time working by married women.

In the 1970's three Acts were passed which had an important bearing on women's employment situation. The first of these was the Equal Pay Act which was passed in 1970 and came into force in 1975. This Act required men and women to be paid equally when they were doing the same or broadly similar work, or work which, as the result of a job evaluation, had been equally evaluated. The extent to which women benefitted from the Equal Pay Act has been limited because of the extent of occupational segregation (Hakim, 1981), because of actions taken by employers to minimize their obligations under the Act (Snell, 1986), and because only a limited number of female employees (25 per cent) are covered by job evaluation schemes (Davidson, 1987). The average hourly pay of full-time female workers as a percentage of full-time male's hourly pay rose from 63 per cent in 1970 to peak at 74 per cent in 1976 to 1977. It has remained at that level or just below it ever since and in 1987 it stood at 73 per cent (Equal Opportunities Commission, 1988; Main, 1988; Central Statistical Office, 1989). Following pressure from the European Community, the Trades Union Congress and the Equal Opportunities Commission, the Equal Pay Act was amended in 1984 to require equal pay for work of equal value. The number of equal pay for equal value claims that have been made since the amendment came into force is small and very few have so far been resolved.

The second Act is the Sex Discrimination Act 1975 which made it illegal to discriminate on the grounds of sex in employment, education and the provision of services. It outlaws both direct and indirect discrimination, the latter being where certain requirements or conditions of employment exist such that the

proportion of women who can comply with them is considerably smaller than the proportion of men who can and that these conditions or requirements cannot be shown to be justified. The Act does have certain important exclusions. For example, the Armed Forces are exempt from the Act, and this limits women's access to some civilian occupations because the forces provide an important training ground for certain occupations, such as commercial airline piloting (Thynne, 1987). The Act also excludes employment in religious posts where the doctrine of the religion requires such posts to be limited to one sex. There is, however, an ongoing debate over the ordination of women. Women have been prohibited from working in underground mines since the 1840's and the Sex Discrimination Act has an exclusion clause allowing this prohibition to continue. However the Employment Bill being debated in Parliament at the time of writing seeks to permit women to work at the coal face. Also excluded are jobs which involve duties outside the UK in a country whose laws or customs are such that the duties could not effectively be performed by a woman. Another exemption in the Act allows private clubs such as golf clubs and other sporting and social institutions to discriminate against women. This means that women are excluded from the informal networking which can take place in these institutions which may restrict their career opportunities.

The third Act to come into force in the 'seventies is the Employment Protection Act 1976 which introduced the maternity pay fund and established the right to maternity leave. However the Act imposed a highly restrictive qualifying condition for maternity leave which requires women to have worked for at least two years full-time or five years part-time with the same employer. Research indicates that as many as 46 per cent of women are ineligible for maternity leave (Daniel, 1981). Britain is the only country in the European Community which does not give all women the statutory right to maternity leave (Phillips, 1988b)

The 'seventies saw a continuing increase in the number of women in

employment. This increase was partly attributable to lower birth rates and the rise in the average age at which women have children (see below), and was partly due to the large numbers of married women taking up part-time employment. Indeed between 1971 and 1987 the proportion of married women in employment rose from 47 per cent to 60 per cent (Central Statistical Office, 1989), and whilst, in 1971 female part-time employees accounted for 13 per cent of all employees, by 1987 this figure had risen to 20 per cent (Central Statistical Office, 1989).

The 'seventies was a decade marked by recession and unemployment, which continued into the 'eighties. The oil crisis of the early 1970's precipitated the recession of 1973 to 1975, which was followed by modest recovery to 1979. The early 'eighties saw a return of recession. By the end of the 1970's the rate of women's labour force participation had levelled off and the rate of unemployment among women was increasing (Martin & Roberts, 1984b). In 1985, 66 per cent of all women were economically active (Equal Opportunities Commission, 1988). Overall, unemployment in Great Britain peaked in 1986 at over three million and has since showed a slow decline (Central Statistical Office, 1989). Official unemployment in 1987 stood at 11.9 per cent for men and 7.3 per cent for women. This appears to suggest that women have been less affected by unemployment than men. However, when the figures are adjusted to include estimated unregistered unemployment, the rate for women stands at 13.1 per cent, higher than the equivalent male rate of 12.7 per cent (calculated from figures in Equal Opportunities Commission, 1988). Also, as Marilyn Davidson (1987) points out, throughout Europe women constitute 41 per cent of Europe's unemployed, which means that more women are out of work than men in proportion to their share of the total workforce.

Economic changes other than recession have also had an effect on women's employment situation. Over the last few decades there has been a decline in manufacturing industry, coupled with a expansion of service industries, in which

the majority of women are employed, particularly in part-time work. Another important economic trend is the rise in self-employment, the so-called *enterprise culture*. Rates of self-employment were relatively stable during the seventies, but rose sharply, by over one million, between 1979 and 1988 (Central Statistical Office, 1989). Women now account for a quarter of Britain's self-employed, and while male self-employment has increased by 30 per cent since 1981, female self-employment has surged by 70 per cent (Hague, 1988a). Indeed in 1987 women started 42 per cent of Britain's new businesses (Peters, 1988).

Changes in childbearing and family life have also played a significant part in the rise of female employment. The introduction of the contraceptive pill in the early 1960's allowed women a high degree of control over their fertility, and according to Rosalind Miles (1985) "radically reshaped the lives of women in ways unknown to history". The passing of the 1967 Abortion Act gave women further freedom to plan and limit their childbearing. Over the past few decades there has been a decrease in the size of families. This has been accompanied by a rise in the average age at which a woman has her first child, a trend which is particularly pronounced for women in social classes I, II and III(N) (Werner, 1984; Office of Population Censuses and Surveys, 1987) and among highly educated women (Kiernan & Diamond, 1983). The rising divorce rate has also had an influence on female employment. At present around one in three marriages ends in divorce. In 1986 14 per cent of dependent children lived in one-parent families (Central Statistical Office, 1989), which is almost twice the proportion that did so in 1972. Six out of seven of these one-parent families are headed by women (Rimmer, 1988). Whilst single mothers are only as likely as other mothers with similar aged children to be in employment, if they are employed it is more likely to be full-time than part-time (Martin & Roberts, 1984b). Also they are almost twice as likely as other mothers to be working over forty hours a week (Rimmer, 1988).

The Women's Movement has been another social force that has influenced



women's employment situation in important ways. The emergence of the so-called second wave of feminism in the 1960's acknowledged and legitimated many women's discontent in the role of housewife (Friedan, 1963; Gavron, 1968; Oakley, 1974). It allowed women to question their exclusion from the workforce and, for some women, was the mobilising force behind their return to employment. The Women's Movement also played a major role in bringing about legislative changes such as the Sex Discrimination Act and the Abortion Act which ameliorated women's position in the workforce.

The last few decades have also seen a significant shift in attitudes towards women at work. The work of John Bowlby (1951,1953) and others during the fifties was part of the prevailing ideology which asserted that women's place was in the home. There is evidence that social attitudes have changed since then and that women, and to a lesser extent men, now accept that women have a place in the labour market. In 1965, 78 per cent of people thought that a married woman with pre-school age children ought not to be in paid employment, but in 1987 the proportion supporting this notion had fallen to 45 per cent (Jowell *et al.*, 1989). In addition, a Europe-wide survey of men and women's attitudes in relation to women's rights to work and women working in non-traditional roles showed a shrinking of discriminatory attitudes since 1975. In 1983 the majority of men and women would trust a woman just as much as a man in the role of member of parliament, surgeon, lawyer or bus driver (Commission of the European Communities, 1984)

Various bodies have influenced women's current employment situation, including trade unions, employers, local and national government and the European courts.

The Trade Union Movement has made a contribution to the bettering of women's employment situation. Trade unions have supported women bringing equal pay cases, or facing sexual harassment. In recent years the Trades Union

Congress has passed resolutions and adopted policies which are progressive in terms of women's equality. However research indicates that union practices at local level often bear little or no relation to policies at national level and that women often feel that their unions are not interested in issues of importance to women (Charles, 1986). In addition the extent of women's trade union participation is still below that of men. In the Women and Employment Study, 51 per cent of full-time workers and just 28 per cent of part-time workers belonged to a union (Martin & Roberts, 1984b). These researchers found a definite association between union representation and better pay, job benefits, training and promotion opportunities for women, although whether or not this was a causal association has yet to be established. Furthermore, even in unions with a predominantly female membership women are consistently under-represented in governing bodies, for example in the Taylor and Garment workers union (U.N.T.G.W.) 92 per cent of the membership is female but only 33 per cent of executive members are women and women make up just 19 per cent of its full-time officials (Coote & Kellner, 1980). It is argued that women's lack of participation in union activities can be explained by the difficulties women face in adding union responsibilities onto their double day of paid work and domestic labour and by sexism within unions (Maroney, 1986).

In recent years a number of employers have been taking actions aimed at furthering equality for women. Some have introduced career break schemes allowing women and men to take unpaid breaks while they are bringing up children with the right to return to the same level of employment. Some schemes allow parents to return part-time. When these schemes were initially introduced they tended to be restricted to high-grade staff only, but some have recently been extended to include all levels of staff. A small number of employers provide workplace nurseries, or subsidise the cost of nursery care. A few employers also run awareness-raising seminars to help combat discrimination against women. A number of companies now employ an Equal Opportunities Manager to carry out positive action programmes. Such

programmes might involve analyzing the gender and racial composition of the workforce; examining job definitions and requirements, recruitment advertising and recruitment procedures; looking at the application forms, tests and interviews used in the selection process; investigating training, promotion and part-time work opportunities and careful monitoring of the programme (Robarts *et al.*, 1982). There is some debate over the effectiveness of equal opportunities policies with some researchers arguing that in many instances their effect is minimal (Aitkenhead, 1987; Aitkenhead & Gorman, 1988).

Local government has also played a part in widening the work opportunities of women. Local authorities were amongst the first employers to introduce positive action programmes and a substantial proportion of the workplace nurseries in the country are to be found in local authorities. Some local authorities have been active in setting up women-only training courses in areas of work where women are under-represented. Such courses often provide trainees with a training allowance and free childcare facilities.

Obviously national Government has played a major role with regard to women's employment. As well as passing the Acts referred to above and their amendments, the Government has influenced the availability of further and higher education and of training opportunities (see below). It has introduced a series of bills which have threatened and eroded maternity rights, so that fewer women are entitled to return to their previous employment following childbirth. In 1984 the Government ruled that subsidised workplace nurseries were a taxable benefit. It also appears to have ruled out the possibility of introducing tax relief on childcare costs generally. The level of financial support given to the Equal Opportunities Commission limits or facilitates the extent of its activities. The Government's other modes of influence include the level of state childcare provision and nursery education; its support for initiatives such as Women into Science and Engineering Year; cutbacks in health and social services which have further burdened women caring for elderly or disabled

relatives (Hunt, 1988b) and may consequently affect their availability for employment. Also its directives on sub-contracting out health service and local authority services to private contractors which, it has been argued, typically leads to a deterioration in pay and working conditions for the many women who work in such services (Coyle, 1986).

Over the last two decades there has been a steady development of policy and legislation at the level of the European Community on the subject of women's rights in employment. Some of the ways in which European rulings have affected women in Britain have been discussed above, such as equal pay for work of equal value and the equalisation of retirement age. It has also forced the Government to change the law so that married women who are caring for elderly or disabled relatives and hence unable to undertake paid work are entitled to receive the Invalid Care Allowance. However, the European calling for universal paternity leave has been blocked by the British Government. To conclude, whilst European law has its limitations and has been criticised for being handed down *from above* (Hoskyns, 1986) it is nonetheless a useful tool in the quest for equality for women.

Looking to the future, the main factor that will affect women's employment situation is the dramatic drop of 25 per cent in the number of school leavers that is predicted to occur by 1993 (Woman in View, 1988), the so-called *Demographic Time Bomb*. The number of young workers (aged under 25) is projected to fall by 1.2 million between 1987 and 1995, but the labour force in general is expected to rise by up to 1.75 million in that time (Central Statistical Office, 1989; Clement, B., 1989). Women are expected to take two-thirds of the net increase in jobs (Felton, 1988), and this increase in female employment will occur for both part-time and full-time employment (Hague, 1988b). Already there are quite severe skill shortages in some areas of employment, particularly in the engineering, computing, accountancy and nursing professions, and for skilled machinists, fitter-mechanics and welders (Central Statistical Office, 1989).

Existing rises in part-time employment and self-employment are predicted to continue into the 'nineties as are relatively high levels of unemployment (Clement, B., 1989). The increasing use of information technology and computerisation is also expected to affect the worklives of many men and women. It has been suggested that computer technology will allow large numbers of people to work at home, remote from their employing organisations. Opinion is divided as to whether this so-called new technology will be beneficial or detrimental to women workers. Some see this move as being beneficial to women who want to combine work and family commitments and lead a home-centred life-style (Toynbee, 1985). But others have pointed out that those undertaking this type of employment may well suffer from all the disadvantages of traditional homeworkers, such as isolation, lack of employment rights and protection, and low pay relative to in-firm employees (Allen & Wolowitz, 1986). Some hoped that new technology, because it is a new area of employment and because it eliminates the physically demanding nature of some types of work, would help to break down occupational segregation. However this does not appear to be the case. Gender segregation is still rife in many industries following computerisation (Game & Pringle, 1983; Cockburn, 1985), and, owing to greater technological knowledge and training, the new job opportunities in the computing field are being appropriated by men (Huggett *et al.*, 1985). See Chapter Four for further discussion.

Domestic factors, most notably having children, but also marriage, housework, and caring for elderly or disabled relatives, play a crucial role in women's working lives. Indeed Brannen and Moss state that

*Family life and motherhood are ... at the heart of women's material inequality both within the family and the public world beyond.*  
(Brannen & Moss, 1988)

In 1985 56 per cent of women with dependent children were economically active (35 per cent part-time and 17 per cent full-time). Thirty two per cent of those

with children aged two or under were economically active (19 per cent part-time, 6 per cent full-time) (Equal Opportunities Commission, 1988). The most important determinant of whether a woman is economically active and whether she works full- or part-time is the presence of children and the age of the youngest child, with a woman being less likely to be employed if she has a child under the age of five (Martin & Roberts, 1984b). The number of children a woman has has no effect on whether she is employed unless she has more than three children, in which case she is less likely to be employed (Martin & Roberts, 1984b). Another important trend is that women are returning to work more quickly following childbirth, for example Martin & Roberts (1984b) found that the median time of return to employment after the latest birth had fallen from around seven and a half years to just over three and a half years over the period 1950 to 1976. They also found evidence of an increasing trend for women to return to work between births. At present only a small proportion of women, around five per cent (Brannen, 1986), take maternity leave and return to work within six months or less after a birth, and evidence suggests that this quick return to full-time work is largely confined to women in non-manual occupations (Rowland, 1981). There is, however, some evidence that this pattern of work may be followed by a significant proportion of women in the future since Martin and Roberts (1984b) found that 27 per cent of young childless women envisaged working throughout their childbearing years by taking maternity leave.

The lack of high-quality, affordable childcare facilities is seen by several researchers as an important factor in limiting women's participation in the workforce, and in confining women to part-time employment (Brannen & Moss 1988; Phillips, 1988a,b). Indeed studies have shown that many more women would enter employment if adequate childcare was available (Martin & Roberts, 1984a, Phillips, 1988b). In Britain family-based childcare predominates, with the child's father looking after the children most frequently and with grandmothers being the second most frequent source of childcare. There is a paucity of other

types of childcare. For every thousand children under the age of five there are just nine local authority nursery places, eight private nursery places, registered childminders provide places for 40, and nannies and other private carers add only another eight places (Clement, B., 1988). There is even less provision for school-age children (Hague, 1989). This reliance on family-based childcare means that many women have to do evening or nightwork as this is the time when their partners are most often available to look after the children. Indeed Martin and Roberts (1984b) found that 38 per cent of employed mothers with children under five worked in the evenings and six per cent worked at night. Research indicates that even when women work full-time many still shoulder the majority of the childcare responsibilities. For example Martin and Roberts (1984a) found that 29 per cent of married women in full-time paid employment reported that they carried out the majority or all of the childcare duties. Indeed Charlie Lewis (1986a) concludes that "Changes in paternal involvement have been smaller and more complex than contemporary authors have suggested". Peter Moss (1980) has shown that fathers of young children tend to work longer hours than childless men, which consequently leaves them with less time to spend with their children. In addition, when children are ill it is usually the mother rather than the father who takes time off work to care for them (Office of Population Censuses and Surveys, 1982). Parents in Britain, unlike those in most European countries, have no statutory right to take time off to look after sick children, although around 9 per cent of employers voluntarily provide time off if a child is ill (Brannen & Moss, 1988).

In the past women typically left employment upon marriage, but this is no longer the case. Martin and Roberts (1984b) found that marital status had no effect on whether a woman was employed or not, but that it was an important determinant of whether a woman worked full- or part-time. Married women, with or without children, are significantly more likely to work part-time than non-married women with or without children, when other factors are held constant (Martin & Roberts, 1984b). Research has shown that the majority of

husbands of employed women tolerate or support their wives going out to work, but typically with the proviso that their wives' employment should not interfere or conflict with their own work or domestic life (Martin & Roberts, 1984b). In the Women and Employment Survey (Martin & Roberts, 1984a) 20 per cent of women reported that their husbands' employment situation affected their own, mainly in that the long hours a husband worked limited the hours the wife could work or prevented her from working altogether. Marriage also affects women's working lives in other ways. For example certain jobs, require quite a high degree of spouse participation (Fowlkes, 1980; Finch, 1983; Callan & Ardener, 1984). Other jobs, such as those in the Forces, the diplomatic service or some executive jobs, require frequent relocation which can have an adverse effect on the spouse's career (Urban, 1988). The issue of geographical mobility can also be problematic for married women when it is their own job that demands it (Deitch & Sanderson, 1987). In 1985 the Equal Opportunities Commission conducted an investigation into the Leeds Permanent Building Society's mobility requirements which were found to be a form of indirect sex discrimination. Another drawback of marriage is the negative image of married women held by some managers. The difficulties inherent in combining marriage and a career may explain the finding that professional women such as managers are far less likely to be married compared to their male counterparts (Davidson, 1987).

In addition to marriage and children, housework is another domestic factor which may influence women's employment prospects. Recent evidence in *Social Trends* indicates that women still carry out the majority of household tasks, even when they are in full-time employment (Jowell *et al.*, 1989). Martin and Roberts, (1984a) found that 73 per cent of women reported that they did all or most of the housework. There is some evidence that even this may be an underestimate of the extent to which the burden of housework is undertaken by women because when the women were asked in detail about household tasks many women who gave long lists of what they did and whose husbands appeared to do relatively little of this work, nevertheless claimed that the



housework was shared equally (Martin & Roberts, 1984a). Males tend to underestimate the amount of domestic work and overestimate their contribution to it (Miles, 1985), and when men do perform housework they tend to do the more creative and non-routine tasks (Oakley, 1981b; Gershuny & Thomas, 1982). This disparity in the amount of housework undertaken is reflected in the fact that men who work full-time have, on average, around ten hours more leisure time per week than full-time employed women (Central Statistical Office, 1989).

The final domestic constraint on women is one which has only recently been recognised and documented, and that is caring for elderly or disabled relatives. One adult in seven is currently an elderly or disabled relative at home (Hicks, 1988). Most of these carers are elderly or middle-aged women looking after parents or partners. Roughly one in four of carers are men (Hunt, 1988b). 14 per cent of the women in the Women and Employment Study (Martin & Roberts, 1984a) were carers. Over the period 1965 to 1980 there has been a statistically significant increase in the number of women below retirement age who are carers (Hunt, 1988b). There is evidence that caring has an effect on women's worklives, for example carers are more likely than others to work part-time, 12 per cent of employed carers felt that the work they did or the hours they worked had been affected by their caring responsibilities and 23 per cent of non-employed carers said that they were prevented from getting paid work because they had to look after their elderly or disabled relative (Martin & Roberts, 1984a). Present government policy is directed towards providing care for the elderly and infirm by the community and this will have the effect of placing a greater burden of caring on women. The changing age structure of the British population - the population aged over 85 is predicted to increase by 46 per cent over the decade 1981 to 1991, and to increase by a further 25 per cent in the following decade (Hunt, 1988b) - means that an increasing number of women will have their worklives interrupted by caring duties.

Part-time employment plays a particular part in the lives of women, especially women with dependent children. Whilst part-time employment allows women to spend more time with their children or on domestic responsibilities, it has several major drawbacks. Firstly it is typically less well-paid than equivalent full-time employment. Secondly part-time workers are afforded far fewer employment rights than full-time workers (Sarler, 1988). Thirdly part-time employment is often associated with downward occupational mobility (Elias, 1988). In the Women and Employment Survey 45 per cent of women returning to a part-time job after childbearing experienced downward mobility, and the longer a woman is out of the labour market, the more likely she is to return to a lower level occupation (Martin & Roberts, 1984b). Similarly Peter Elias (1988) reports that in 1981 5.9 per cent of women working part-time in personal service occupations such as waitress, barmaid, kitchen assistant, cleaners, and counterhands had teaching qualifications and 7.9 per cent had nursing qualifications. A fourth disadvantage of part-time employment is that part-time women workers tend to shoulder the brunt of the housework to virtually the same extent as those who are not employed, whereas the partners of women working full-time make a somewhat greater contribution. This has led some researchers to conclude that women with part-time jobs have "the worst of both worlds" (Jowell *et al.*, 1989).

One particular form of part-time work that should be mentioned is job-sharing, a way of working which is slowly becoming more wide-spread. Job sharers share one job, but unlike other part-time workers, typically retain their full-time status in terms of pay and entitlements to sick-pay, maternity leave and pension benefits. At present 3,760 civil servants and about 2,000 local authority workers share jobs (Phillips, 1989)

Homeworking (paid employment carried out in domestic premises) is another type of employment that women undertake to fit in with domestic responsibilities. Between 1.1 and 2.8 per cent of economically active people

are homeworkers (Hakim, 1984; Allen & Wolkowitz, 1986), the vast majority of whom are women. This way of working may conjure up a images of work autonomy, flexible hours, more time to spend with one's children, a reduction of work pressure and a less stressful day, but the reality, for the majority of homeworkers, is very different. Research indicates that homeworkers obligations to an employer are, if anything, more constrained than those who go out to work, so that hours, pace and quality of work are effectively controlled by the employer. Because there is no spatial separation homeworkers paid and unpaid labour this intensifies, rather than reduces, the pressures of both waged work and unpaid domestic labour, the so-called *double day* (Allen & Wolkowitz, 1986). Homeworkers also typically receive low wages and have very limited employment protection.

For further discussion of domestic factors and their role in influencing women's occupational decisions see Chapter Three.

Occupational segregation by sex is a prominent feature of employment in Britain. A study by Audrey Hunt (1975) found that one fifth of establishments did not employ men and women on the same work. Another study carried out in 1979 found that two-thirds of all jobs were single-sex at establishment level (McIntosh, 1980). Similarly Martin and Roberts (1984a) found that 63 per cent of women were in jobs done only by women in their workplace. They found that the men in their study were even more markedly segregated from women than the women were from men, with 80 per cent of men being in men-only occupations (Dex, 1986). Occupational segregation is more in evidence in low-level occupations than in higher-level occupations (Martin & Roberts, 1984a). It is also a particular feature of part-time employment. Hakim (1979, 1981) has studied the extent of occupational segregation over the twentieth century and concluded that occupational segregation has not changed very much; that men have made some inroads into traditionally female areas of employment, but the reverse has not occurred to the same extent; and that occupational segregation

declined during the 1970's until the end of that decade which saw women's position deteriorate as a result of recession. In the 1980's, after some movement towards desegregation, the situation has become static (Hunt, 1988a).

In Britain there is a high concentration of female workers in a very limited number of occupations. For example of all full-time women workers 42 per cent are employed in clerical and related occupations and 19 per cent are in professional and related occupations in health, education and welfare. Women working part-time are particularly concentrated in the occupational category, *catering, cleaning, hairdressing and other personal services*, and in *selling* (Davidson, 1987). Overall 77 per cent of female full-time workers and 90 per cent of female part-time workers work within four categories of employment : clerical, personal services, selling, and education/health/welfare (Equal Opportunities Commission, 1986a). Several research studies have been carried out investigating these female-dominated areas of employment, such as clerical and secretarial work (McNally, 1979; Valli, 1985; Lowe, 1987; Pringle, 1989); nursing (Skevington, 1984); and teaching (Trotman, 1984; Al-Khalifa, 1988).

Women are substantially under-represented in many occupational fields, including science, engineering, management, information technology, finance and the manual trades. Over the past few decades women have made some inroads into these areas but the 1980's saw a slowing down or even a reversal of this trend. For example the Institute of Directors report that whilst 9.7 per cent of full-time positions in senior management were held by women in 1975, this figure had fallen to 6.2 per cent by 1985 (Times, 1986). Other commentators claim that the position of women in computing has deteriorated in recent years (Arthur, 1988). For further discussion of women in male-dominated areas of employment see Chapter Four.

Certain occupations, most notably medicine and law, whilst still being male-

dominated overall, have seen a large influx of women at entry level in recent years. For example around half of all medical students are women and more than half of the passes in the 1988 Bar examinations went to women (Peters, 1988). Women's greater presence at entry level does not, however, guarantee an increased number of women at higher levels in the occupation (Hansen, 1989). Occupations like these, in which more than two-thirds of workers overall are male, but less than two-thirds of those currently entering the occupation are male, are termed *Transitional* occupations, and are investigated as a separate category in the present research.

International comparisons can help to illuminate the women's employment situation in Britain. International perspectives are also important because a large proportion of the existing research literature emanates from countries other than Britain, in particular from the USA. Therefore a brief description of the employment situation of women in Europe, the United States, and the USSR will follow.

Throughout Western Europe women make up between a quarter and a third of the workforce, with Finland having the highest percentage of any European country with nearly half the labour force being female (Davidson, 1987). Pre-school childcare provision is generally better in Europe than in Britain. For example 90 per cent of Italian children are in nurseries, usually for more than seven hours a day by the age of three (Phillips, 1988b). The proportion of women with children under five who are in employment is 52 per cent in Belgium, 73 per cent in Denmark, but only 29 per cent in the UK (Brannen & Moss, 1988). All E.C. countries except Britain have statutory maternity leave that extends to all women. All EC countries except Britain provide a period of paternity leave following childbirth for all or substantial parts of the workforce. Some, like Sweden, also provide paid leave to care for sick children. Occupational segregation varies throughout Europe and some countries are less segregated with regard to certain areas of employment than is the UK. For

example 15 per cent of engineering students in higher education in France are female; the corresponding figure for Scandinavia being 25 per cent (compared to around ten per cent in Britain) (Rufford, 1988).

Women's employment situation in the USA differs in important ways from that of women in Britain. Firstly legislation outlawing sex discrimination has a longer history dating back to the 1964 Civil Rights Act. Subsequent amendments and titles have extended its range and coverage. The greater powers of the US's Equal Employment Opportunities Commission; American legislation permitting *class actions* which has led to settlements involving thousands of employees; the greater prevalence of *Affirmative Action Programmes*; and the requirement that firms having or wanting federal contracts must institute such programmes result in the USA being a more aggressive pursuer of equal opportunities for women than Britain (Dex & Shaw, 1988). Occupational segregation is nonetheless rife in the United States, with approximately 75 per cent of all women being employed in only five occupational groups - clerical/secretarial, nursing, household worker, service employee and elementary school teacher (Terborg, 1985). Over the period 1950 to 1979 the proportion of women carpenters in the US increased from 0.2 to just 1.3 per cent, and there was a similarly small increase in women engineers, from 1.2 to 2.9 per cent (Larwood & Gutek, 1984), although 20 per cent of engineering students are female (Rufford, 1988). Whilst 31 per cent of administrators and managers in the US are women (Larwood & Gutek, 1984) (compared to 20 cent of in the UK), the percentage of senior female executives is still very small (Davidson, 1987). The United States were initially more occupationally segregated than the UK but desegregation has occurred at a faster rate in the US and by 1961 had overtaken Britain in its progress towards desegregation (Hakim, 1979). But, as in Britain, the 1980's saw a levelling-off of desegregation and some researchers even report that sex segregation in America is now on the increase (Mitchell, 1986). In terms of equal pay the US has fared very poorly. In 1979 American women earned 58.9 per cent of the median income for men, which is actually

less than in 1939 when the figure stood at 60.8 per cent (Terborg, 1985). It is also important to note that Britain and the US differ in terms of childcare and maternity leave. Since 1954 employed parents in the USA have received tax concessions for expenses incurred in childcare covering up to 20 per cent of childcare costs. Whilst employed mothers in the US are in a better position than their British counterparts with regard to the taxation of childcare costs, they are worse off when it comes to maternity leave. The USA does not have any legal requirements concerning maternity leave, although a small proportion of employers voluntarily provide paid and unpaid leave (Dex & Shaw, 1988). Dex and Shaw (1988) have compared the working patterns of women in the US and UK. They found that whilst British women in their forties and fifties were somewhat more likely to be employed than their American counterparts, amongst younger women in their late twenties and early thirties American women were much more likely to be in employment than British women, the difference in their employment rates being around 20 per cent. Another difference is that for British women part-time employment is something they typically take up after childbirth. American women, on the other hand, tend to work part-time during their younger years, usually in conjunction with finishing their education, rather than after having children. The final difference to be considered is that on average American women have a much earlier return to employment after childbirth, with one quarter of US women returning within a year compared to approximately one-eighth of British women.

The Soviet Union provides the final international comparison. The USSR has the highest rates of female labour force participation of any industrial society with over 87 per cent of women engaged in full-time employment or study (Lapidus, 1988) and women constitute 51 per cent of the workforce (Attwood & McAndrew, 1984). Occupational segregation in the USSR follows a different pattern. For example 95 per cent of statisticians, 85 per cent of accountants, 82 per cent of economists and planners, 77 per cent of dentists, 74 per cent of physicians, and 40 per cent of engineers are female (Attwood & McAndrew,

1984). However more than 80 per cent of food and textile workers are women; over 90 per cent of garment workers are female (Lapidus, 1988). Although patterns of occupational segregation differ from those in Britain, female labour in the USSR is still subject to highly discernible patterns of horizontal and vertical segregation (Attwood & McAndrew, 1984). It is also true that in areas where women predominate these occupations are low-status and wages are below average. In fact female earnings in the Soviet Union are between 65 and 70 per cent of male earnings (Lapidus, 1988). Another barrier to women's equality in the USSR is men's lack of involvement in housework and childcare. Soviet women do around 28 hours of housework a week, whilst their partners do just 12 hours on average and men in the USSR have 50 per cent more leisure time than women (Lapidus, 1988).

Returning now to the situation in Britain, we will now look at education because gender inequalities in employment result in part from inequalities in education. The Sex Discrimination Act covers educational establishments, so in theory girls and boys should receive similar educational experiences. However this is not the case. In 1988 an Equal Opportunities Commission investigation found that six schools in West Glamorgan unlawfully discriminated against girls and boys by denying them equal access to craft subjects (Crequer, 1988). When provision is equal the sexes tend to choose to study different subjects when they make their option choices at age fourteen. For example just six per cent of technical drawing passes, 27 per cent of computer studies passes and 28 per cent of physics passes at GCE O-level were gained by girls, whereas in cookery a massive 97 per cent of passes went to girls (Equal Opportunities Commission, 1986b). At A-level sex segregation becomes yet more pronounced. New initiatives such as the Technical and Vocational Education Initiative (T.V.E.I.) which specifically set out to be non-sex-stereotyped have failed in that boys and girls typically follow different courses, study different subjects and are allocated largely stereotypic tasks during work placements (Independent, 1988).



It has been argued that a core curriculum would help to counteract pupil's reluctance to choose gender-atypical subjects. However, the recently introduced *National Curriculum*, is unlikely to have a major effect on gendered subject choices (Pickersgill, 1989). Initial proposals recommended that all pupils spend 20 per cent of their time on studying science, but this has since been revised to stipulate that the majority of pupils will spend 20 per cent of curriculum time on science, with the remaining pupils spending just 12.5 per cent. It is feared that girls will choose the 12.5 per cent science option (Pickersgill, 1989).

Even where boys and girls are studying the same subject in the same class, their experience may not be equal. For example Pat Mahoney (1985) reports that in mixed classes boys dominate both physically and verbally and that teachers often encourage girls to keep their comments short in case the boys start to get restless and misbehave. Other researchers report similar findings on the so-called *hidden curriculum* indicating that teacher-pupil interaction, teaching materials and staffing structures may operate to the detriment of girls (Stanworth, 1983; Weiner, 1985; Whyte *et al.* 1985). This has led some commentators to call for single sex classes in co-educational schools or for a return to single-sex education (Sarah *et al.*, 1980; Shaw, 1980; Deem, 1984). Finally careers education and advice given in schools may also play a role in channelling girls and boys into gender-typical occupations (Benett & Carter, 1981; Kant & Brown, 1983; Griffin, 1985).

Turning now to further and higher education are concerned 45 per cent of all sixteen year olds now enter further education (Central Statistical Office, 1989), young women being more likely to do so than young men, the difference being accounted for, to a large extent by the numbers of female school leavers joining secretarial courses (Cockburn, 1987). In higher education there has been a gradual increase in the numbers of women who now comprise 42 per cent of undergraduates and 32 per cent of postgraduate students (Equal Opportunities Commission, 1986b). Sex segregation in higher education courses is still very

much in evidence. For example, 70 per cent of university undergraduates studying languages are female, but only 26 per cent of those studying mathematical sciences, 24 per cent of those studying the physical sciences, and 9 per cent of those studying engineering and technology are women (Equal Opportunities Commission, 1988). Over the period 1975 to 1986 there has been an increase of 64 per cent in the number of part-time higher education students, an increase which has taken place almost entirely among those aged over 25 with a particularly rapid increase for women (Central Statistical Office, 1989).

Gender inequalities and sex segregation also exists in the field of training. In terms of employer-based training, women working full-time receive less training than male full-time employees. Female part-time workers are the least likely to receive training (Martin & Roberts, 1984a). Yves Benett and Dawn Carter (1983) have documented the many factors which operate to exclude young women from day-release training. Although the Sex Discrimination Act permits single-sex training courses when one sex is under-represented in an occupation, few employers offer such courses. Such courses that do exist have been funded in the main by the European Social Fund, local authorities and voluntary organisations.

In terms of Government-sponsored training 1983 saw the introduction of the *Youth Training Scheme* (YTS) which replaced the *Youth Opportunity Programme* (YOP). YTS provided one year of work experience with some training for all 16 and 17 year olds. In 1986 it was extended to two years for 16 year olds with the opportunity for all trainees to gain recognised vocational qualifications or credit towards these qualifications. Over a quarter of all sixteen year olds enter YTS (Central Statistical Office, 1989). Young women are somewhat under-represented on YTS making up 40 per cent of trainees (Equal Opportunities Commission, 1986b). Sex segregation in YTS is widespread. For example 70 per cent of young female trainees are concentrated in three particular areas of training : *office skills; personal service and sales; and community and health*

*services* (National Union Of Students Women's Unit, 1985). Ninety per cent of trainees in transport, 82 per cent of trainees in technical and scientific occupations, and 81 per cent of trainees in manufacture and assembly are male (N.U.S Women's Unit, 1985). One study suggests that youth training schemes may not only reflect but also increase occupational segregation, since before joining the Youth Opportunities Programme 68 per cent of girls who had jobs were in the female areas of work outlined above, but when they left the Programme the proportion had risen to 74 per cent (Rees, 1983). It is undeniable that the great majority of trainees state gender-typical preferences on leaving school and joining the Scheme (Cockburn, 1987). But there is also evidence of sex discrimination in YTS from careers officers giving advice on placements, from managing agents, and from instructors and employers (N.U.S Women's Unit, 1985, Cockburn, 1987).

The Government has set up several training and employment initiatives for adults as well as young people. All the evidence suggests that sex segregation persists in adult training schemes (Wickham, 1986). *Employment Training* schemes, the most recent Government initiative, include part-time places to encourage women to participate (Felton, 1988). However, it has yet to be seen whether this will alter sex segregation.

Other types of training include courses with names such as *Return to Work*, *Wider Opportunities for Women*, or *Fresh Horizons* which are designed especially for women who have taken a period out of employment for childrearing. These courses aim to increase women's confidence and sometimes offer job sampling. However provision is patchy (Wickham, 1986), and have generally not had a major influence in encouraging women to enter male-dominated occupations (Fairbairns, 1979).

In addition to the inequalities in education and training outlined above there is also evidence that women are discriminated against in selection and promotion.

For example Audrey Hunt (1975) found that managers thought that all the qualities needed for managerial jobs were more likely to be found in men than women. A follow-up study five years later revealed that although attitudes had become slightly more favourable, women were still regarded as inferior (Hunt, 1981). Several experimental studies have found evidence of sex discrimination in employment selection (Arvey & Campion, 1982), even in organisations who place a strong emphasis on fair employment practices (Rosen & Merich, 1979). Other studies have looked at real life situations and have found extensive evidence of sex discrimination in clerical and retail sales work (Curran, 1986) and in the life insurance industry (Collinson & Knights, 1985). Research indicates that the recession has led to an increasing reliance on informal channels in recruitment (Wood, 1986) and such channels are more open to sex discrimination and are more often used by males than females who tend to rely on state employment agencies (Dex, 1982). As far as promotion is concerned research on women managers indicates that many women managers felt that less qualified and less experienced male colleagues had achieved considerably faster promotion (Alban-Metcalf & Nicholson, 1984). Although non-promotion is covered by the Sex Discrimination Act it was not until February 1989 that the first case non-promotion case was brought and in the event the claim was dismissed.

One particular form of discrimination against women that needs to be addressed is sexual harassment. Sexual harassment may be defined as

*Repeated, unreciprocated and unwelcome comments, looks, jokes, suggestions or physical contact that might threaten a woman's job security or create a stressful or intimidating working environment.*

(Sedley & Benn, 1982)

Estimates of the proportion of women suffering from sexual harassment vary according to the definition used, the type of worker surveyed and the period of employment considered, but there is general agreement that between one third and one half of all women have been sexually harassed at work (Stockdale,

1987). Sexual harassment has also been found to be prevalent in institutions of further and higher education where female students may be sexually harassed by both academic staff and fellow students (Benson & Thomson, 1982; Stockdale, 1986). Women may be harassed by superiors, coworkers, subordinates, or clients, with superiors and coworkers being the most common perpetrators (Sedley & Benn, 1982; Lafontaine & Tredeau, 1986). It is also interesting to note that identical behaviour is more likely to be labelled sexual harassment when it is carried out by a superior rather than a coworker (Tangri, 1982). The effects of sexual harassment on women include depression, chronic fatigue, nervousness and feelings of victimisation (US Department of Labor, 1978; Read, 1982), anger, fear, helplessness and guilt (MacKinnon, 1979). It can also cause women to leave their jobs. Whilst women sometimes complain about sexual harassment to their family, friends, coworkers and to the harasser, official complaints are made in only a minority of instances (MacKinnon, 1979). Until the 1980's no sexual harassment cases were brought to court in Britain, but the Equal Opportunities Commission fought for sexual harassment to be recognised as a form of sex discrimination under the Sex Discrimination Act and the first case was won in 1983. Since then the number of sexual harassment cases before industrial tribunals has grown slowly and stood at 13 during 1988 (Wade, 1989). Because the level of compensation that industrial tribunals can award is limited, women have recently begun to take High Court action against men accused of harassment and at least two have been awarded substantial settlements (Muir, 1989).

Women's experiences in the labour market can differ markedly depending on their social class. Social class is a problematic concept, particularly when applied to women. Convention demands that if a woman is unmarried and living with her parents her social class is defined by her father's occupation; if she is unmarried and lives on her own her social class is defined by her own occupation; but if she is married or co-habiting her social class is then defined by her partner's occupation (Delphy, 1981). No man is ever classified according

to his wife's occupation, even when he has no occupation himself. The social classification system itself has received much criticism in relation to women's employment and tentative new classification systems have been proposed (Roberts, 1986, Thomas, 1986). Social class and gender interact to determine the kind of work women undertake (Morgan & Taylor, 1983). Working class girls are disadvantaged in the education system (McRobbie, 1978; Griffin, 1985). Similarly working class women differ from middle class women and from working class men in their motivation for taking up employment and in their experiences at work (Pollert, 1981; Cavendish, 1982; Morgan & Taylor, 1983; Coyle, 1984). Working class women also have a historical relation to work that is different from that of middle class women (Cantor & Laurie, 1977) and do not necessarily equate employment with liberation.

For black and ethnic minority women race and gender combine to form what Stewart (1988) terms an *intersection of disadvantage* which puts them at a double disadvantage in relation to employment. The experiences of black women in Britain have yet to be fully documented. Much of the research on the employment situation of black women originates in the US and this is not immediately transferrable to the British situation because of the differing historical roots and contemporary experiences of the British and American black populations (Mama, 1986; Stewart, 1988). In Britain the black community is comprised of several diverse groups whose relationship to and experiences of employment differ in important ways. Taking the term *black* to mean non-white, the three main groups in Britain are Indian (31 per cent of the non-white population), West Indian/Guyanese (22 per cent), and Pakistani (16 per cent) (Central Statistical Office, 1989). In Britain 72 per cent of West Indian/Guyanese women are economically active, as are 55 per cent of Indian women, whereas only 18 per cent of Pakistani/Bangladeshi women are economically active (Central Statistical Office, 1989). The black community is also generationally diverse. Firstly there are those whose ancestors lived in Britain in the seventeenth century arriving as slaves or as the offspring of native

white women and black sailors; those who came to Britain as migrants in the second half of the twentieth century; and the growing generation of their offspring. A substantial proportion - between 6 and 40 per cent depending on region - of the non-white population is of mixed origin (Mama, 1986). What all types of black women share is the experience of racism and negative stereotypes about black people which can affect their experience of employment (Stewart, 1988). Firstly, racism affects black people through the education system as documented by the *Swann Report* (Department of Education & Science, 1985). Secondly, black people are disadvantaged in the training opportunities open to them. For example, they are more likely to be found in the less prestigious Mode B non-employer-based YTS schemes (Cockburn, 1987) and are only 32 per cent of Afro-Caribbeans and 42 per cent of Asians found a job after their YTS placements, compared to 61 per cent of white young people who found a job (Palmer & Poulton, 1987). Thirdly Black people also suffer from discrimination in selection and promotion (Brown & Gay, 1985; Commission for Racial Equality, 1985). Fourthly black women often face difficulties in finding good, affordable childcare for their children (Mama, 1986). Fifthly the main areas where black women are employed (clothing and food manufacture, textiles, light engineering, catering, transport, cleaning, nursing and hospital ancillary work) are generally those with low status, low pay and long and anti-social hours (Bryan *et al.*, 1985; Mama, 1986). The first four areas of employment where black women predominate have, in recent years, been hit by closures and mass redundancies, and in the structure and distribution of hospital work women are concentrated at the base of the pyramid (Bryan *et al.*, 1985). Finally black women, like black males, experience higher rates of unemployment than white women (Central Statistical Office, 1989). The greater extent of unemployment amongst the black community is partly due to its younger age structure, partly because of the over-representation of black workers among unskilled and semi-skilled workers and partly because of direct discrimination in the job market (Barber, 1984).

Class and race are not the only status characteristics which combine with gender to influence women's relationship with and experiences of employment. Other factors include disability, religion, age, sexuality and attractiveness. There is ample experimental evidence that physical disabilities can have a major influence on decisions made in selection interviews (Rose, 1980), the extent of the discrimination depending on the nature of the disability, other personal attributes of the applicant, the nature of the job in question and characteristics of the potential employing organisation. A report by the Royal College of Physicians (1988) concluded that disabled people, sufferers from major illnesses and people with conditions such as epilepsy and diabetes face much unnecessary prejudice at work. Psychiatric disability has also been shown to negatively influence employment decisions (Stone & Sawatzki, 1980). Similarly Walker (1982) has documented the disadvantages in employment faced by young people with learning difficulties. The fact that a woman with a severe disability is more likely to be unemployed than a man with the same degree of disability (Pay, 1988) suggests that disabled women fare less well in the labour market than disabled men. Discrimination on the grounds of religion can also be a problem for women, especially those in Northern Ireland where high rates of Catholic unemployment cannot be accounted for by other factors such as social class, geography or family size (Daniel, 1988). Age discrimination *per se* is not illegal in Britain and a large proportion of job advertisements specify upper age limits. This can be a particular disadvantage to women who have spent a period of time out of the labour market following childbirth. In recent years age discrimination has come under closer scrutiny, for example, an industrial tribunal ruled that the Civil Service Commission was indirectly discriminating against women in operating an age bar for its executive officers. Sexuality is another important factor. Research indicates that lesbian women often face discrimination in the form of dismissal, lack of promotion and verbal and physical harassment (Kaufmann, 1988). Physical attractiveness can also influence an applicant's chances of securing employment. Experimental evidence suggests that attractiveness interacts with gender and the level of job, such that



attractive females are highly recommended for clerical jobs but receive low recommendations compared to unattractive women when applying for managerial jobs. Attractive men, by contrast, receive higher recommendations than unattractive men whatever the level of job (Heilman & Saruwatari, 1979)

Having presented a comprehensive overview of the social, historical, economic and legislative factors that have influenced and continue to influence women's employment situation today, there will now follow an outline of the remainder of this thesis. Chapter Two contains a literature review covering research and theories about occupational choice, including psychological/individualistic theories, interactionist theories, and social/structural theories. The research and theories discussed in Chapter Two are those which are thought to apply to males only or which purport to be gender-neutral. In Chapter Three theories and research on women's occupational choice are reviewed, including those that take biological, psychodynamic, radical feminist, gender relations, socialist / Marxist, domestic and psychological perspectives on the occupational choice process of women. Chapter Four consists of a review of literature on women's choice of, and entry into, male-dominated occupations and of their experiences in such occupations. Chapter Five reports an exploratory study into the gender-dominant occupational preferences of female and male students using the theoretical framework of Albert Bandura's *self-efficacy* theory (Bandura, 1977, 1982). Chapter Six introduces the main study of the present research. This study was designed following the relative failure of self-efficacy theory to explain women's occupational preferences for gender-typical occupations and was developed from the research and theories outlined in Chapters Two, Three and Four. In brief, the main study is a piece of research on women in three types (manual, non-manual, and transitional) of male-dominated occupations and women in non-manual female-dominated occupations who act as a control group. The research investigates the social and psychological factors underlying their choice of, and entry into, male-dominated occupations and the nature of their experience in such occupations. In Chapter Seven there follows a

description of the methodology and method used in the main study. The results of the study are to be found in Chapters Eight and Nine. Chapter Ten includes a discussion of the results and a model of women's occupational choice, with particular reference to women in male-dominated occupations is proposed. In the final chapter, Chapter Eleven, the extent to which the questions outlined at the beginning of the thesis have been answered is considered; the particular contribution of the research presented here is assessed; the practical and theoretical implications of the research are examined; suggestions for future research are put forward; and conclusions are drawn.

## CHAPTER TWO

# Literature Review I : Occupational Choice

Nine theories of occupational choice are reviewed here. The theories were selected on the basis of their salience in the research literature (Watkins *et al.*, 1986) and are all non-gender-specific.

Before describing these theories it is necessary to clarify the term *occupational choice*. This term is used here to denote the whole process, from occupational preferences (which can vary in level from ideal or fantasy to realistic or compromised preferences) through to entry into employment and occupational development in adulthood. It is recognised that usage of the term *choice* is not uncontentious since, for some individuals, occupational placement may be more the result of allocation than choice. However it is used here because of its common usage in the research literature.

The theories and research reviewed in this chapter are subdivided into three categories : *psychological/individualistic* theories; *interactionist theories*; and *social/structural* theories. It is necessary to point out that the majority of the psychological/individualistic theorists accede that environmental factors have some degree of influence. Likewise most social/structural theorists admit that

psychological factors play a limited role at least in determining the occupation a person enters. Where the theories differ is in the degree of emphasis that is given to each set of factors and whether factors are merely mentioned or form an integral part of the theory.

## **Psychological/individualistic theories**

*Psychological or individualistic* theories emphasize personal characteristics as determinants of occupational choice. Such theories focus on the *supply* rather than the *demand* side of occupational placement. The theories described in this section include both *matching* theories and *developmental* theories. Matching or differentialist theories have a long history dating back to the work of Parsons (1909). In such theories occupational choice is seen as the process of matching individual's abilities, interests and personalities with the requirements of available jobs. Developmental theorists see this approach as too static and prefer to describe occupational choice as a long process involving personal growth and the development of awareness of *self*. Some theories contain elements of both types of theory. In all, five psychological/individualistic theories are presented and discussed : Ginzberg, Ginsburg, Axelrad and Herma's theory; Super's theory; Holland's theory; Roe's theory; and Expectancy theory.

### **Ginzberg, Ginsburg, Axelrad and Herma's Theory**

The first major theory of occupational choice is that of Eli Ginzberg and his associates, Ginsburg, Axelrad and Herma (Ginzberg *et al.*, 1951; Ginzberg, 1952). These theorists conceptualised occupational choice as a sequence of developmental stages leading to entry into an occupation. They proposed three major stages : *fantasy*, *tentative* and *realistic* choices. The fantasy stage, from age six to age eleven, is a time when a child believes that he or she can become anything that is attractive, and acts out these fantasies in play. Choices during this stage may be influenced by recent experiences, family, peers or television,

but will have no regard for the skill or qualifications necessary and are essentially arbitrary. The second stage, the tentative stage, from age eleven up to age seventeen, is sub-divided into four stages : (1) *interest*; (2) *capacity*; (3) *values* and (4) *transition*. Overall the tentative stage is characterised by a growing awareness of the need for criteria formulating occupational preferences. During the interest sub-stage the individual decides that some activities are of more interest than others. During the capacity sub-stage an individual begins to take his or her own capabilities into account. The values sub-stage is characterised by the individual's increasing tendency to consider his or her values when deciding upon occupational preferences and the introduction of the idea of service to society. The transition sub-stage involves the integration of interests, capacity, values and the realities of the world of employment. The third major stage, the realistic stage, which occurs from age seventeen into early adulthood, is sub-divided into the stages of *exploration*, *crystallisation* and *specification*. In the initial sub-stage young people begin to realistically explore occupations that meet with their requirements as formulated during the tentative stage. The individual then proceeds into the sub-stage of crystallisation when he or she makes a general decision about the type of occupation to enter. The final sub-stage, specification, is when the young person selects a specific position or occupational speciality to enter.

Ginzberg and his colleagues acknowledged that there would be variability within the process described above. For example individuals may differ in the exact ages when they enter the particular stages (this is especially true for the crystallisation stage); and some individuals may decide upon an occupation at an early age rather than following the more typical pattern of narrowing down from a broad range of options. Such variability is thought to result from individual differences in emotional maturity; from differences in the age at which people leave education and enter employment; and from the specific nature of an individual's abilities. In addition the proposal that occupational choice is a developmental process, the other main elements of Ginzberg *et al's* theory are

that the occupational choice process is largely irreversible, due to time, resources and emotional barriers to change; and that compromise is an essential aspect of every choice.

In the early 'seventies Ginzberg (1972) revised his theory in a number of ways. Firstly the idea that the occupational choice process was limited to a certain age span, that is to childhood and early adulthood, was abandoned and Ginzberg conceded that occupational decision-making could also occur at later ages. He felt that three factors would influence the lifelong process : the original choice; the feedback between the original choice and later work experience; and economic and family circumstances. Secondly, Ginzberg toned down his original claim that the occupational choice process was largely irreversible. Thirdly he no longer conceptualised occupational choice as a process of compromise, but rather as one of *optimisation*. Ginzberg has since proposed one further modification to his theory (Ginzberg, 1984) in which he states:

*Occupational choice is a lifelong process of decision making for those who seek major satisfactions from their work. This leads them to reassess repeatedly how they can improve the fit between their changing career goals and the realities of the world of work.*  
(Ginzberg, 1984)

Ginzberg *et al's* original work was based on research involving a small sample of 64 upper middle-class males ranging from age 11 up to 23, 17 males from economically deprived backgrounds and 10 female college students. Ginzberg and his colleagues chose their main sample because they were thought to be unhampered by social factors in their occupational choices. They included the two subsamples to allow them to investigate the influence of social class and gender on occupational choice. They justify their small sample size on the grounds that intensive small-scale research is necessary to produce the theoretical foundation which must precede statistical testing. The theory has, however, received some criticism for the nature of the sample upon which it was

based (Roberts, 1975). The original research has also been criticised for its lack of statistical analysis; its failure to look at occupational choice and development in adulthood; and its emphasis on occupational preferences rather than occupational entry (Osipow, 1983). Research carried out since the publication of Ginzberg *et al.*'s theory (Small, 1953; Davis *et al.*, 1962; Tucci, 1963; Hollender, 1967; Gribbons & Lohnes, 1968; Kelso, 1977; Gottredson, 1981) found limited support for the theory. There is general empirical support for the notion that individuals emphasize different factors in their occupational preferences at different ages; that they compromise their preferences in deference to the realities of the world they observe; and that occupational choice is a developmental process. However evidence is mixed with regard to what the specific stages are, when they occur and in what order they occur (Osipow, 1983).

Whilst the work of Ginzberg and his colleagues had a substantial influence in the decade since its inception, it is now generally considered to be of historic significance only, and has been largely superseded by the work of Donald Super, discussed below.

### **Super's theory**

The work of Donald Super (Super, 1953; 1957; 1980; Super *et al.*, 1963), the second psychological/individualistic theorist to be considered, draws on and is a reaction to Ginzberg *et al.*'s formulations. As Super himself admits (Super, 1969) Super's theory is not one integrated theory, but is better described as a segmented theory or collection of subtheories. The three main subtheories are : Super's *developmental* theory, his *self-concept* theory and his more recent *life-span, life-space* theory. The developmental part of the theory has much in common with the work of Ginzberg and his colleagues, but also draws on the work of Charlotte Buehler (1933) to form a life stage theory, that covers the whole life-span. The stages that Super proposes are (1) *growth*, from birth to 15 years; (2) *exploration*, 15 to 25 years; (3) *establishment*, 25 to 45 years; (4)

*maintenance*, 45 to 65 years; and (5) *decline*, after age 65. Super's theory also has elements of a matching theory in that he contends that individuals attempt to choose occupations that match their self-concept and that life-long occupational development may be viewed as a continuing process of self-concept implementation. Super's developmental and self-concept theory can best be summarised by the following twelve propositions :

1. People differ in their abilities, interests and personalities.
2. People are qualified, by virtue of these characteristics, each for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests, and personality traits, with tolerances wide enough to allow both some variety of occupations for each individual and some variety of individuals in each occupation.
4. Occupational preferences and competencies, the situations in which people live and work, and hence their self-concepts, change with time and experience, although self-concepts are generally fairly stable from late adolescence until late maturity, making choice and adjustment a continuous process.
- 5 This process of change may be summed up in a series of life stages (or *maxicycle*) characterised as those of growth, exploration, establishment, maintenance and decline, and these stages may in turn be subdivided into (a) the fantasy, tentative and realistic phases of the exploratory stage and (b) the trial and stable phases of the establishment stage. A smaller cycle takes place in transitions from one stage to the next or each time an unstable or multiple-trial occupation is unestablished, which involves new growth, re-exploration, and re-establishment.
- 6 The nature of the occupational pattern - that is, the occupational level attained and the sequence, frequency and duration of trial and stable jobs - is determined by the individual's parental socioeconomic level, mental ability, and personality characteristics, and by the opportunities to which he or she is exposed.
7. Development through life stages can be guided, partly by facilitating the



maturing of abilities and interests and partly by aiding in reality testing and in the development of self-concepts.

8. The process of occupational development is essentially that of developing and implementing self-concepts; it is a synthesising and compromising process in which the self-concept is a product of the interaction of inherited aptitudes, physical make-up, opportunity to play various roles, and evaluations of the extent to which the results of role-playing meet with the approval of superiors and fellows.

9. The process of synthesis of or compromise between individual and social factors, between self-concept and reality, is one of role-playing, whether the role is played in fantasy, in the counselling interview, or in real-life activities such as classes, clubs, part-time work, and entry jobs.

10. Work satisfactions and life satisfactions depend on the extent to which individuals find adequate outlets for their abilities, interests, personality traits, and values; they depend on the establishment of a type of work, a work situation and a way of life in which one can play the kind of role that growth and exploratory experiences have led one to consider congenial and appropriate.

11. The degree of satisfaction people attain from work is proportionate to the degree to which they have been able to implement self-concepts.

12. Work and occupation provide a focus for personality organisation for most men and many women, although for some persons this focus is peripheral, incidental or even non-existent, and other foci, such as leisure activities and homemaking are central (Super, 1984).

In recent years Super (1980) has proposed what he terms a *life-span, life-space* approach in which he attempts to bring together life stage and role theory. Super proposes that, throughout their lifetime, people play a variety of roles, the nine major roles being : child, student, leisurite, citizen, worker, spouse, homemaker, parent and pensioner. These roles are played out in four main *theatres* : the home, the community, school/college, and the workplace. These roles are inter-related and interacting, and it is the combination of roles at any

given time that constitutes a person's life-style. Super depicts his proposals as a *life-career rainbow*. Another interesting development in Super's work is that he now believes that it was a mistake to adopt the terminology of *self-concepts* rather than that of *personal constructs* (Super, 1984). Super prefers the latter term because it better provides for the personal perception and construction of the environment and encapsulates the notion that social, economic, and political factors as well as the family operate in determining occupational choice.

Research based on Super's work has produced mixed, although broadly supportive results. A relatively large number of studies have been carried out to test Super's self-concept and developmental subtheories although little work has addressed his more recent formulations, and as, in all research on occupational choice there is a woeful lack of longitudinal studies. Osipow (1983) in his review of Super's work reported that the majority of research that has been undertaken supports Super's theory. However it must be pointed out that the majority of this research was carried out using subjects who were either preparing for or already in professional occupations. There is some debate as to whether Super's theory is applicable to those with few qualifications and those in low-level occupations. Some research (Roberts, 1968; Hayes, 1971) found evidence for this view, but other studies found evidence to the contrary (Salamone & Slaney, 1978; Kidd, 1982). An interesting study on British school leavers (Haystead, 1977) found that whilst there was some relationship between self-concept and perceived requirements of preferred occupations, the relationship held largely in the negative sense that those who rated themselves as not having particular characteristics tended to say that it was not important that people in their preferred occupation should possess them. Watts and Kidd (1978) have reviewed research on the effectiveness of careers education and counselling based on developmental theories such as Super's and concluded that they "do not yet provide any firm empirical basis for affirming (or denying) the superiority of such programmes to the more traditional approaches".

Overall it must be concluded that Super has made a particular contribution in acknowledging occupational choice and development in adulthood and the way in which occupational roles interact with other life roles. Super's theory continues to hold a central position in the occupational choice literature and is thought to have considerable theoretical and practical utility (Osipow, 1983).

### **Holland's theory**

John Holland's theory (Holland, 1959; 1966; 1973; Holland & Gottfredson, 1976) bears some similarity to that of Super. Whilst Super asserts that people search out occupational environments in which they can implement their self-concept, Holland proposes that individuals seek occupational environments that are *congruent* with their personality type or orientation. Holland postulates that there are six basic personality types : *realistic* (R); *investigative* (I); *social* (S); *conventional* (C); *enterprising* (E); and *artistic* (A). Personality type is thought to be the result of hereditary, parental, educational, cultural, socioeconomic and sex-role socialisation factors. People do not fall neatly into these categories but can be described in terms of the three types that they most resemble in descending order of resemblance e.g. SCI, which Holland refers to as a person's *personal or developmental hierarchy*. Holland further proposes that there are six types of occupational environment which correspond to the six personality types. Again he does not claim that all jobs fall exclusively into each category, but that occupations can be described in these terms. Holland graphically represents both personality types and occupational environments into a hexagon with adjacent types/environments being more similar than opposing ones. Holland proposes that occupational choice is essentially a matching process between personal hierarchies and the demands and satisfactions of particular jobs. The more congruent the match between personality type and occupational type the more stable is the occupational choice, contends Holland. He also proposes that congruence results in higher occupational achievement, greater personal stability and higher job satisfaction.

Whilst personality type is thought to determine the occupational field an individual enters, the level that an individual reaches within a particular occupational field is considered to be determined by the actual ability and self-perceived ability - this is what Holland refers to as the *level hierarchy*.

Two other important concepts in Holland's theory are *consistency* and *differentiation*. Consistency is the extent to which the types that make up one's personal hierarchy cluster together in the hexagonal model. Differentiation refers to whether a person moderately resembles several personality types (an undifferentiated person) or whether he or she bears a strong resemblance to one type and a lesser resemblance to other types (a differentiated person). Holland hypothesises that consistency and differentiation influence occupational functioning.

Holland acknowledges the role that social and environmental factors play in occupational choice, although he suggests that those with well-structured personal hierarchies will be less affected by such factors than those with ambiguous hierarchies. Holland has made several minor refinements to his theory over the years in response to criticisms and discrepant research findings. The outline presented above describes Holland's theory as it currently stands.

A large amount of research has been undertaken within the framework of Holland's theory, in fact Holland's theory is probably the most researched of all the theories presented here (Weinrach, 1984). Much of this research broadly supports Holland's theory (Osipow, 1983; Spokane, 1985). However the majority of this research has investigated the relationship between personality type and occupational preferences or college major, rather than the occupation actually entered and as such fails to test the main tenets of Holland's theory. Concurrent studies on employed subjects are also inadequate in addressing the validity of Holland's theory because any reported relationship between personality type and occupational environment could be due to rationalisation

or occupational socialisation. Super (1981) has reviewed the research on Holland's theory, with these methodological drawbacks in mind, and has concluded that validation of Holland's theory must await longitudinal research. Another drawback of existing research is its over-reliance on those studying for or employed in professional occupations, and more research on unselected samples is required (Holland, 1979). Indeed at least one research team has found Holland's theory to be lacking when applied to manual workers (Heesacker *et al.*, 1988).

Holland's theory has been criticised on several counts : firstly that it is oversimplistic; secondly that it is static and fails to account for developmental considerations; and thirdly that it fails to specify in any great detail how people become the types that they are (Osipow, 1983; Brown, 1984), although Holland has carried out some research investigating the role of parental variables in producing different personality types (Holland, 1962). These criticisms notwithstanding, Holland's theory has made some important contributions and it maintains a prominent position in the research literature.

### **Roe's theory**

Although some attempts have been made to understand occupational choice from a psychodynamic perspective (Brill, 1949; Segal, 1961; Bordin *et al.*, 1963) such attempts have not met with wide acceptance and remain somewhat marginal. Nevertheless, one psychodynamically oriented theorist, namely Anne Roe, has produced a major theory of occupational choice. Roe's work (1956, 1957) draws upon both psychodynamic work generally and upon Maslow's hierarchy of needs (Maslow, 1954). She contends that genetic predispositions combine with childhood experiences to form the general style an individual develops to satisfy needs. It is this style that has a major influence on occupational choice. Roe suggests that given equal genetic endowments, differences in occupational achievement may be inferred to be the result of motivational differences. She postulates that (1) needs that are routinely

satisfied do not become unconscious motivators; (2) higher-order needs will disappear entirely if they are only rarely satisfied, but lower-order needs will become dominant motivators if they are rarely satisfied and (3) needs that are satisfied after unusual delay may become unconscious motivators.

Roe believes that parents are of prime importance in the satisfaction or frustration of needs and thus the formation of motivation, and therefore early parent-child relationships are crucial, in Roe's view, to occupational preferences in later life. She postulates six types of parent-child relationship : *over-protection; over-demanding; emotional rejection; neglect; casual acceptance; and loving acceptance*. Roe specifies how these parenting styles affect the satisfaction of the child's needs, and whether the child develops a basic orientation *toward persons* or *not toward persons*. This then predisposes the individual to make particular occupational choices. For example Roe suggests that people in service occupations are primarily oriented toward persons and probably come from loving or overprotecting home environments, while scientists tend not to be oriented towards persons and typically had rejecting parents. The level that a person reaches within an organisation is determined by the intensity of needs (which result in part from early parent-child relationships and are in part genetically determined), by innate ability and by socio-economic factors.

Roe organises the world of work into eight occupational fields (service; business contact; organisation; technology; outdoor; science; general culture; and arts and entertainment), which differ along two dimensions : *people-natural phenomena* and *resourceful utilisation-purposeful communication*. She further classifies occupations by level (professional and managerial I; professional and managerial II; semi-professional; skilled; semi-skilled; and unskilled). Roe initially conceptualised her classification system as being cylindrical with the horizontal plane representing the fields and the vertical plane representing the levels. However this has since been revised (Roe & Klos, 1969) from a cylindrical to

a conical shape with a wide top and narrow base, to indicate that regardless of field low-level jobs are more similar to one another than high-level jobs.

In a major restatement (Roe & Siegelman, 1964) it was proposed that parent-child relationships can be described by three factors : loving-rejecting; casual-demanding; and over-attention. They present evidence that loving-rejecting and over-attention styles of parenting are related to adult person orientation. In this restatement Roe and Siegelman also admit that parental behaviour is not constant and that the behaviour of one parent can offset the impact of the behaviour of the other. In addition they concede that socio-economic factors and chance are likely to be very important to the choice of a specific occupation.

Roe (1984) proposes a further reformulation in which she attempts to place her personality theory within a wider context. She expresses her position on the variables that enter into occupational choice in terms of the following formula :

$$\begin{aligned} & \textit{Sex} [(\textit{Economy} + \textit{Family Background} + \textit{Chance}) + \\ & \quad (\textit{Friends/Peer Group, Marital Situation}) + \\ & \quad (\textit{Learning/Education} + \textit{Acquired Skills}) + \\ & \quad (\textit{Physical Factors} \times \textit{Cognitive Factors} \times \\ & \quad \quad \textit{Temperament/Personality} \times \textit{Interests/Values})] \end{aligned}$$

It is thus evident that whilst Roe's early work could be classified as psychological/individualistic, in her more recent statements Roe has shifted to an interactionist position.

The research upon which Roe's theory is based consists of biographical interviews with and projective tests on people in the physical, biological and social sciences. This research has several limitations : firstly that it is dependent

on the retrospective accounts of subject's early relationships with their parents which may be inaccurate; secondly the validity and reliability of the projective tests used by Roe has been questioned, and thirdly it is confined to a small number of high-level occupations and therefore the findings may not be generalisable to a wider population. The majority of research carried out specifically to test and evaluate Roe's theory (Grigg, 1959; Hagen, 1960; Utton, 1962; Switzer *et al.*, 1962; Brunkan & Crites, 1964; Appleton & Hansen, 1969) found very little or no support for the theory, although a minority of researchers do report positive findings (Medvene, 1970; Medvene & Shueman, 1978).

Several criticisms have been levelled at Roe's work, particularly her early proposals which emphasized early parent-child relations. For example, the importance of early experience in determining adult behaviour in general has been questioned (e.g. Clarke & Clarke, 1976). Her early work has also been criticized as being somewhat naive in attempting to explain the highly complex process of occupational choice in terms of just one factor (West & Newton, 1983). Osipow offers several criticisms of Roe's work, for example, that Roe fails to deal with the detail of the interaction between genetic and childhood determinants of occupational choice, and concludes that status of Roe's theory is in question (Osipow, 1983). In a similar vein Brown (1984) concludes that the future of Roe's theory seems uncertain. Whilst Roe's most recent reconceptualisation, (Roe, 1984), is interesting, empirical evidence in support of this model is yet to be forthcoming.

### **Expectancy theory**

The prime proponent of *expectancy theory* is Victor Vroom (Vroom, 1964), who build his theory from earlier work by Georgopoulos *et al.* (1957). Essentially expectancy theory asserts that the strength of a tendency to act in a certain way depends on the strength of an expectancy that the act will be followed by a given consequence or outcome and on the value or attractiveness of that outcome to the individual, the two components combining in a multiplicative



manner. These ideas were not new and have been expounded by others as well as Vroom, but Vroom was instrumental in applying them to occupational psychology and to occupational choice. Vroom presented two mathematical models: the first being the *valence model* for the prediction of the valence (that is anticipated satisfaction) of outcomes; and the second he termed the *choice model* for the prediction of force towards behaviour. In the valence model, the valence of an outcome to an individual is the sum of the products of the valences of all other outcomes and the individual's conceptions of the specific outcome's instrumentality for the attainment of these other outcomes. In terms of occupational choice the model predicts that the occupation an individual prefers is dependent upon the valence the individual attaches to particular outcomes such as high pay and intellectually stimulating work and the extent to which the individual believes that these outcomes will be afforded by particular occupations. In Vroom's choice model the force on a person to perform an action is determined by the sum of the products of the valences of all outcomes and the strength of the person's expectancies that the action will be followed by the attainment of these outcomes. What this means in terms of occupational choice is that whether an individual decides to attempt to enter a particular occupation will depend on the extent to which he or she perceives that such efforts will lead to successful entry into the occupation in question and on the valence of this occupation (as predicted by the valence model).

Mitchell (1974) and Mitchell and Beach (1976) have reviewed the empirical evidence for an expectancy theory of occupational choice. They note that the majority of researchers have tested the valence model (Vroom, 1966; Sheard, 1970; Vroom & Deci, 1971; Wanous, 1972; Mitchell & Knudsen, 1973; Lawler *et al.*, 1975) and report broad support for the theory. Two studies have investigated the choice model (Sheridan *et al.*, 1975; Lawler *et al.*, 1975) both of which found positive support for the theory. There are however several methodological drawbacks to these studies : firstly researchers have typically used a predetermined list of outcomes rather than lists generated by the subjects

themselves; secondly researchers have not always used appropriate scales when measuring valences, instrumentalities and expectancies; and finally researchers have sometimes used group averages whereas the theory should ideally be tested using a within-subject procedure. Later research using such a procedure generally lends support to the theory (Teas, 1981). It is also necessary to point out that the outcome variable in all of these studies was occupational preference rather than occupational entry.

Overall it can be concluded that expectancy theory appears to account for some of the variability in individual's occupational preferences. However it is a narrow and limited theory which says nothing about the process of occupational entry, about the role of social factors, or about what it is that influences people's valences and instrumentality and expectancy beliefs. Finally it should be noted that there has been a relative dearth of research interest in expectancy theory since the mid-seventies.

## **Interactionist theories**

Interactionist theories may be defined as those which include, as integral parts of the theory, both individual/psychological factors and social/structural factors. In this section two interactionist theories will be presented : the theory of Blau, Gustad, Jessor, Parnes and Wilcock, and Krumboltz, Mitchell and Jones's theory.

### **Blau, Gustad, Jessor, Parnes and Wilcock's theory**

In the 1950's Peter Blau and his colleagues (Blau *et al.*, 1956) formed a multidisciplinary team and worked together on the question of why people enter different occupations. Their collaboration resulted in the proposal of a conceptual framework of occupational choice and selection. A key part of this framework, and one which differentiates it from the psychological/individual theories described above, is that it takes into account the process of selection

as well as the process of choice.

Blau *et al.* assert that occupational entry is determined by the decisions of both individuals and selecting employers. The former are thought to be the result of a continually modified compromise between the individual's preferences for, and expectancies of, being able to enter various occupations (a proposal which bears a fair degree of similarity to the choice model of expectancy theory outlined above). Selection decisions, it is suggested, are dependent upon employers' perceptions of the ideal candidate and their estimates of the standard of applicant they might attract given the intrinsic and extrinsic rewards of the job in question. Blau and his associates then go on to outline the antecedent factors underlying these concepts. They propose that the preference and expectancy hierarchies of individuals and the ideal standards and realistic estimates of employers are influenced by both individual *immediate determinants* (such as occupational information, qualification, and social role characteristics) and societal *immediate determinants* (such as demand, requirements and amount and type of rewards). They further postulate that individual immediate determinants result from *sociopsychological attributes* (such as general level of knowledge, abilities and educational level, and social position); which are in turn influenced by *personality development* (e.g. differential family influences, the process of socialisation); which in its turn is dependent upon *biological conditions* (such as heredity) and *social structure* (e.g. cultural values and norms, economic factors). Blau *et al.* trace the origins of the societal immediate determinants back through *socioeconomic organisation* (such as the division of labour, government and union policies, rate of labour turnover); which is the result of *historical change* (e.g. trends in social mobility, shifts in industrial composition, changes in levels of demand); which is in turn influenced by both *social structure* and *physical conditions* (such as resources, geography). Occupational choice is considered to be a series of interrelated decisions rather than a single event, that is a developmental process involving the repeated application of the framework outlined above.

Blau and his associates' work is not based on empirical evidence, but rather on theoretical observations. Indeed Blau *et al.* point out the need for empirical research to validate their framework and to elucidate the exact relationships between the determinants they outlined. However since Blau *et al.*'s work was published in a journal outside the mainstream journals of occupational psychology and sociology it has attracted little research interest and has yet to receive empirical support. Nevertheless the framework is notable for its comprehensive charting of the interaction of social and psychological variables, and has been described as a "potentially seminal document" (Super, 1981).

#### **Krumboltz, Mitchell and Jones's theory**

In the 1970's John Krumboltz and his colleagues, Anita Mitchell and Brian Jones (Krumboltz *et al.*, 1976; Krumboltz *et al.*, 1978; Krumboltz, 1979; Mitchell & Krumboltz, 1984) presented what they termed a *social learning theory* of occupational choice. It has its origins in the work of Albert Bandura (Bandura, 1969) and in Krumboltz's earlier work (Ryan & Krumboltz, 1964; Krumboltz & Schroeder, 1965; Krumboltz & Sheppard, 1969).

Krumboltz and his associates view occupational choice and selection as a life-long process involving the sequential cumulative effects of four main types of influence : *genetic endowment and special abilities; environmental conditions and events; learning experiences; and task approach skills.* The first type of influence, genetic endowments and special abilities, which include factors such as race, sex, physical characteristics, disability, intelligence, and artistic and musical ability, are thought to set limits on occupational preferences and entry. Environmental conditions and events include job and training opportunities, social and selection policies, family resources, the educational system and technological change amongst others. Such factors influence occupational entry directly and indirectly through their influence on learning experiences. The third type of influence, learning experiences, are subdivided into *instrumental* and

*associative* learning experiences. The former occur when an individual undertakes a particular behaviour and notes the antecedents and consequences of that behaviour. The latter occur when an individual is reacting to external stimuli, as in the case of observational learning or classical conditioning.

As a result of the three aforementioned influencers, individuals bring to each new task or problem a set of task-approach skills, the fourth type of influence on occupational choice. Task-approach skills include work habits, mental sets, emotional predispositions and problem-solving skills, with occupational decision-making skills being viewed a subset of task-approach skills. A final important concept in Krumboltz *et al.*'s theory is the *self-observation generalisation*. A self-observation generalisation is an overt or covert evaluation of one's actual or vicarious performance or assessment one's own interests and values. Such generalisations are the result of learning experiences and are not necessarily accurate. There are three main types of self-observation generalisation : generalisations about task efficacy, those about interests, and those about personal values. Occupational preferences are a particular type of self-observation generalisation and play an important part in occupational choice.

Mitchell (1979), Krumboltz and Rude (1981) and Mitchell and Krumboltz (1984) have reviewed research evidence pertinent to the social learning theory of occupational choice and found some support for many of the propositions of the theory. However since the majority of the studies reviewed were not conducted within the framework of social learning theory, these reviews merely constitute a retrospective reinterpretation of existing data. Overall Osipow (1983) concludes that empirical evidence in support of Krumboltz *et al.*'s theory is somewhat fragmented and sparse.

Krumboltz and his colleagues have produced a relatively comprehensive and explicit interactionist theory. It has however attracted criticisms on three counts : firstly for lacking the occupational content necessary for most practical

applications (Holland, 1976); secondly for its lack of specific attention to the influence of chance (Roe, 1976); and thirdly for its lack of emphasis on the process of development (Brown, 1984).

## **Social/structural theories**

The theories presented in this section take as their central point the notion that social circumstances beyond the control of the individual contribute significantly to occupational choice.

Two main theories are discussed here. Firstly the work of Kenneth Roberts is discussed. Roberts is not the only theorist to propose that societal and structural forces are paramount in occupational choice. Others, such as Warnath (1975) and Tyler (1977), have made similar points. However Roberts is considered to be the major exponent of this viewpoint. The second theory to be presented is the *happenstance* theory of occupational choice.

### **Roberts' theory**

Kenneth Roberts' *Opportunity Structure* theory of occupational choice (Roberts, 1968, 1973, 1977, 1981, 1984) largely grew out of his dissatisfactions with major existing theories such as those of Ginzberg *et al.* and Super which focused on psychological/individual factors. Roberts in his work with school leavers using the Youth Employment Service (Roberts, 1968) found that these type of theories were not applicable to the majority of school leavers. He argues that occupational entry has very little to do with occupational preferences and that most young people simply take what is available. He suggests that factors such as the local labour market and an individual's qualifications are better predictors of occupational entry than are occupational preferences.

Roberts contends that it is not just school leavers with few qualifications who's occupational destination is determined by opportunity structures, but also the highly qualified such as graduates. There is some support for this contention in that in a recent survey of students in higher education, 42 per cent reported feeling that they would end up in a career which was not their ideal because there would be too much competition or too few places (Crequer, 1989).

A person's occupational path is determined, argues Roberts, by the opportunity structure to which he or she is exposed, first in education and then in employment. Roberts does not argue that individuals do not possess ideas about the types of work they hope to enter and avoid but that such preferences have very little effect on the type of employment entered. In addition, such occupational preferences are thought to be influenced by educational and occupational *socialisation* and *climates of expectation*. Roberts also points out that when unemployment is a real possibility, there are strong pressures to take any job that is offered. Another important facet of Robert's theory is his contention that many types of occupation offer little opportunity for implementing one's self-concept. He further argues that basing the practice of careers education and counselling on psychological theories such as Super's, is likely to exacerbate rather than overcome the difficulties of school leavers seeking employment, by raising hopes and expectations that cannot be met in the real world.

Research carried out by West and Newton (1983) investigating the transition from school has some bearing on Roberts' theory. For example over half (54 per cent) of the school leavers they interviewed reported having heard about their job through family or friends. Overall, two and a half years after leaving school, less than half of the young people were in the type of occupation that was their occupational choice when they were at school. Those who were not doing the jobs that had originally hoped to do were asked what made them decided upon a different job. West and Newton found that their responses

were overwhelmingly biased in the direction of forced choice.

Roberts' Opportunity Structure theory has attracted some criticism, particularly in relation to his contention that careers educators and counsellors should concentrate on practical employment problems rather than on personal development and the implementing of the self-concept in occupational choice. For example West & Newton (1983) argue that Roberts' approach ignores the dynamics of a changing society :

*To discourage rising expectations is to an extent to encourage stagnation and apathy, for the frustration of aspirations and expectations can be a form of constructive conflict within society as a whole. Young people who protest about the nature of their work may be a force for useful change in society. If we attempt to shape acceptance of monotony we only perpetuate a poor quality of working life. Such an approach may have the effect of strengthening existing divisions in society. (West & Newton, 1983)*

Peter Daws (1977, 1981) has put forward similar arguments against Roberts' theory. He also maintains that any adequate theory of entry into employment must take account of sociological, economic and psychological factors. It is concluded, therefore, that whilst Roberts theory is important in drawing attention to the influence of social/structural factors in the occupational choice process, he has overstated his case.

### **Happenstance theories**

In recent years Steve Baumgardner (Baumgardner, 1976, 1977, 1982), Albert Bandura (Bandura, 1982b) and Mark Miller (Miller, 1983) have put forward the view that chance or *happenstance* (unplanned events that measurably alter's one's behaviour) play a major role in determining the occupations individual's enter. Whilst happenstance can include economic and structural factors such as those described by Roberts, it also encompasses events such as accidents, illness, and chance meetings. The happenstance approach to occupational choice is



largely a reaction against psychological/individualistic theories which have implicit within them the notion that occupational choice is or should be a rational, logical process. The impact of chance events is not thought to be random but will depend upon a number of variables such as individuals' skills, interests, values and sense of *personal agency* (Bandura, 1982b). It must also be pointed out that "Chance favours the prepared mind" (Miller, 1983).

Much of the evidence presented by Baumgardner, Bandura and Miller in favour of the happenstance model of occupational choice is anecdotal. However some studies have been carried out which indicate the importance of chance. For example Baumgardner (1975) found that 72 per cent of recent college graduates reported entering their current occupations on the basis of circumstantial factors or some combination of circumstance and planning. In a similar vein Ford (1985) reports that :

*Despite the fact that work assumed such an important role in the lives of almost every man interviewed, many explained that there had been a surprising element of luck in their manner of choosing a job or career. Sometimes it all hinged on one chance conversation... The choice of career for most men seemed a haphazard affair unrelated to their talents, needs or interests. (Ford, 1985)*

However, others have found that people tend to attribute their occupational choices to a combination of personal, social and happenstance factors. For example, Salomone and Slaney (1981) found that the factor that nonprofessional workers reported having the most influence on their past occupational decisions was their awareness of their skills and abilities. Other factors that were commonly mentioned were intelligence; education; occupational awareness; training opportunities; financial responsibilities; financial constraints affecting education and training; family, community or cultural influences; national or local economic situations; physical or mental health; unexpected personal events; and getting unexpected information about job openings.

Happenstance theory has been criticised for setting up a "straw man" in that psychological/individualistic theorists have never claimed that occupational choice is an entirely logical and rational process (Osipow, 1977). It may also be criticised on the grounds that although research indicates that happenstance plays a part in occupational choice, there is little evidence to suggest that it is the only or even a major determinant of the occupations people enter.

## **Discussion and conclusions**

It is difficult to produce an overall evaluation of the nine theories that have been presented in this chapter because they differ in their scope, aims and purposes. Some of the theories are concerned with predicting occupational preferences, whilst others deal with occupational entry; some are primarily concerned with careers education and counselling, whereas for others the focus is primarily theoretical. Some of the diversity of and conflict between the theories arises because the theories come from and reflect the differing traditions of psychology and sociology. Some of the conflict is also due to the nature of the populations studied. Some may also be the result of crosscultural differences, for example Jennifer Kidd (1981) speculates that the high value Americans place on individualism and achievement may mean that the self-concept will have a more important role to play there than in the occupational behaviour of British adolescents and adults.

Despite the differences between the theories there is also quite a large degree of overlap, and, following Brown (1984), it is contended that some degree of synthesis is possible and desirable.

What can also be concluded from the review is that an adequate theory of occupational choice will necessarily be interactionist in nature, since there has been too much unhelpful polarisation. Such a theory will include some notion

of self-concept or personality; a developmental emphasis; and the influence of social/structural factors and of chance.

One other crucial attribute of an adequate theory of occupational choice is that it must be able to account for the occupational behaviour and choices of women in a comprehensive and integrated manner. The theories reviewed here have invariably failed on this count.

Both Ginzberg (1984) and Super (1957, 1984) have suggested schemes for classifying the occupational patterns of women, but these schemes have not been integrated into the overall theories. Ginzberg and his collaborators did study a small sample of female college students and concluded that the occupational choice process did not differ markedly from that of their male counterparts, except that concerns about marriage became important during young adulthood (Ginzberg *et al.*, 1951). There is some evidence to indicate that Super's developmental and self-concept theory is applicable to women (Lowenthal *et al.*, 1975; Kidd, 1982), but the separate concerns of women have yet to be adequately addressed by the theory.

Holland contends that his theory applies equally well to women as it does to men, although he does acknowledge that sex-role socialisation plays a part in determining an individual's personality type, which in turn influences the type of occupation entered. There has been much debate about whether inventories based on Holland's theory, such as the Self-Directed Search (SDS), are sex-biased. One side (Gottfredson, 1982) argues that male-female differences in scores on the SDS reflect actual sex differences in occupational interests, which occur as the result of sex-role socialisation, whereas the other side (Prediger, 1981) believes they are the result of sex-bias inherent in the SDS.

In Roe's early formulations she failed to consider the effects of gender on occupational choice. In her later work (Roe, 1984), she acknowledges this

inadequacy, especially with regard to her occupational classification system. She now proposes that sex is a general modifier variable influencing both environmental and psychological factors, but offers no empirical evidence in support of this view.

Expectancy theory *per se* has very little to say about women's occupational choice. However Kenneth Wheeler (Wheeler, 1983) carried out a study to investigate sex differences in occupational preference within the framework of expectancy theory. He only tested the valence model and found that it predicted occupational preferences for both males and females moderately well. No other such work has been undertaken.

Blau and colleagues do not make any specific mention of gender, although the differential effects of gender could readily be encompassed within Blau's *social structure* variable.

Krumboltz's theory is somewhat more promising in that Krumboltz includes sex in the category of genetic endowment and special abilities, but fails to specify the ways in which gender might influence occupational choice through environmental conditions and events and through learning experiences, although Mitchell and Krumboltz (1984) begin to describe this process. In addition Roe (1976) has criticized the theory for its failure to include the influence of marriage in the environmental conditions and events category. Krumboltz's concept of self-observation generalisations concerning task efficacy is essentially the same as the concept of self-efficacy which has been investigated, independently from Krumboltz *et al.*'s theory, by other social learning theorists, Gail Hackett and Nancy Betz (Betz & Hackett, 1981; Hackett & Betz, 1981) who have applied it specifically to the understanding of women's occupational choice. For further discussion of the self-efficacy theory of women's occupational choice see Chapters Three and Five.

Considering the importance Roberts attaches to the social structure, it is somewhat remarkable that he largely fails to address question of gender. Happenstance theorists similarly fail to deal with the issue of gender.

It is therefore concluded that existing non-gender-specific theories of occupational choice are not, in their present form, able to explain the occupational choice process in women.

In the next chapter woman-specific theories and research on occupational choice will be reviewed. The majority of this research and theorising was carried out independent of, and makes no reference to, the general theories of occupational choice reviewed in the present chapter. However there is one notable exception - Linda Gottfredson's Circumscription/Compromise theory of occupational choice (Gottfredson, 1981). Gottfredson has proposed a synthesising, interactionist, general theory of occupational choice, but one which also includes gender as a major integrated concept. Ideally any adequate theory of women's occupational choice must be subsumed within a more general theory of occupational choice that applies to all individuals, and Gottfredson's theory holds some promise in this direction. Gottfredson's theory is described further in Chapter Three.

## CHAPTER THREE

# Literature Review II : Women's Occupational Choice

In this chapter theories and research pertaining specifically to women's occupational choice will be reviewed.

It has long been noted that males and females differ markedly in their occupational preferences and in the types of occupation they enter, and these differences appear to be persisting into the 1980's. Differences are apparent in the occupational preferences of pre-school children (Nemerowicz, 1979; Franken, 1983; Pitcher & Schultz, 1983). These differences continue through childhood (Archer, 1984; Wilby, 1988), into adolescence (Fogelman, 1979; Fisher & Holder, 1981; Fieldman, 1988), into young adulthood (West and Newton, 1983; Cockburn, 1987), and in the occupations men and women actually enter (Martin & Roberts, 1984a). In addition other researchers have noted the narrow range of girls' occupational preferences (Rauta & Hunt, 1975; Sharpe, 1976; Furlong, 1986). Whilst there may be variations in the content of occupational choices at different ages and in different regions, the gender division in occupational choice persists.

Early theoretical attempts to account for the differential occupational choices and behaviour of women date back to the late 1960's with the work of Psathas (1968) and Zytowski (1969).

George Psathas (1968), following his investigation into the occupational choices and employment decisions of student nurses, believed that the *setting* in which women's choices are made had been neglected and proceeded to elaborate a set of factors that, he believed, operated on women to determine their occupational decisions. These included the intention to marry, time of marriage, reasons for marriage, husband's economic situation and attitudes toward his wife being employed, and the arrival of children; the financial situation of the family of origin, the presence of economically dependent siblings and absence of older siblings making an economic contribution, illness or unemployment in the family of origin; parental social class; maternal employment; the woman's value orientation; the differing access to eligible males that various occupations afford and perceived male attitudes to women in different occupations.

Donald Zytowski's (1969) theory is somewhat more narrow than that of Psathas and largely focuses on women's domestic role which Zytowski views as primary. He sees women's occupational and domestic roles as mutually exclusive and occupational participation as a departure from the norm. He postulates that age of entry into the labour market, span of participation (amount of time spent in employment) and degree of participation (extent of female- or male-domination of the occupations undertaken) combine to give women's level of occupational participation. He then proceeds to describe some of the factors which influence this level of occupational participation, including ability, motivational factors and external, situational factors.

It must be said that the two theories outlined above are both products of their time and have consequently emphasised the influence of marriage to a degree that would not be tenable today. However they were useful seminal documents

that marked the beginning of theorising about and research on women's occupational choice.

The 1970's saw an abundance of work on women's occupational choice. However research during this period tended to be very segmented, with each piece of research focusing on just one or two factors that might play a role in women's occupational choice. It was also typically conducted within the framework of sex-role socialisation (Farmer, 1976; Harmon, 1977). In the 1980's researchers such as Betz and Fitzgerald (1987), Eccles (1987) and Larwood and Gutek (1987), began to formulate theoretical frameworks in which to assimilate the disparate findings of the 'seventies. However these attempts remain somewhat tentative. Another interesting approach is that of Helen Astin (1984), who proposes a sociopsychological model of women's occupational choice and focuses on the "structure of opportunity" - an approach which is similar to, less explicit or extensive than, that of Gottfredson outlined below. Some researchers have proposed multidimensional statistical models to account for women's occupational choice, for example Farmer (1985) and Fassinger (1985). Others have focused on alternative approaches to the question of women's occupational choice such as life-course, gender relations and radical feminist perspectives (see below). In this Chapter, eight interrelated theories of, or approaches to, women's occupational choice are presented and evaluated. These are biological; psychodynamic; radical feminist; sex-role socialisation; life-course; domestic; gender relations; and structural theories.

However before presenting these theories it is important to point out that they were invariably formulated without reference to existing theories of occupational choice. This has led to a situation in which two separate sphere's of interest have arisen, with very little overlap or attempt at integration. There is, nevertheless, one notable exception - Linda Gottfredson's circumscription/compromise theory - which warrants some consideration and will be presented before consideration of the other theories of women's occupational



choice.

## Circumscription/Compromise theory

In 1981 Linda Gottfredson produced a monograph describing what she has termed a *circumscription and compromise* theory of occupational choice (Gottfredson, 1981). Her work is unique in that she has produced an integrative theory which crosses the *great divide* between non-gender-specific theories of occupational choice and theories of women's occupational choice. Its value also lies in its synthesis of some of the major theories of occupational choice outlined in Chapter Two.

Essentially Gottfredson conceptualises occupational choice as a developmental process beginning in early childhood in which occupational aspirations become increasingly circumscribed in line with the individual's developing self-concept. When the individual reaches early adulthood he or she begins the process of implementing occupational preferences which is, according to Gottfredson, a process of compromise.

There are several key concepts in Gottfredson's theory that need to be defined and elaborated before the theory can be described in greater detail. Firstly there is the *self-concept* which Gottfredson defines as one's view of one's self. It may or may not coincide with an outsider's objective assessment of the person's personality, and includes a person's sense of social self as well as more psychological attributes such as abilities, interests and personality.

The second key concept in Gottfredson's theory is *occupational images* which are defined as generalisations people make about particular occupations. An occupational image might include generalisations about the types of people in a particular occupation, the kind of work they do, the types of lives they lead,

the rewards and conditions of the work, and the appropriateness of the job for different types of people. Essentially the concept of occupational images is very similar to that of occupational stereotypes, but the former is used in preference to the latter because of the negative connotations attached to the use of the term stereotype.

The next concept that Gottfredson introduces is the *cognitive map of occupations* which is a generalisation about occupations that links individual occupational images to each other in a coherent whole. Gottfredson contends that people tend to judge the similarities and differences between occupations along a few simple dimensions such as *sex-type* (perceived suitability of occupations for females and males), *level* or *prestige*, and *field of work*, which is similar to Holland's concept of occupational environment (see Chapter Two).

The next two terms to be considered are *occupational preferences* and *judgements of compatibility* which Gottfredson uses interchangeably. Preferences or compatibility judgements are the individual's own judgements of the match between their self-concept and their image of particular occupations. It is very similar to Holland's concept of congruence (see Chapter Two) but is a judgement made by the individual rather than by an outside observer.

Another important concept is that of *perceived accessibility* of occupations. This term refers to the obstacles or opportunities in the social or economic environment that affect one's chances of entering a particular occupation. Perceived accessibility is somewhat analogous to *realism*, but the former is a person's own judgment about obstacles and opportunities whereas the latter usually refers to an outside observer's assessment of these factors.

What Gottfredson terms *occupational alternatives* are the product of preferences (perceived job-self compatibility) and perceived accessibility. These alternatives are grouped together into an individual's *social space* or *zone of acceptable*

*alternatives*. This is referred to as a social space because the alternatives largely reflect the person's sense of where he or she fits into society. The major dimensions of this social space are the sex-type and prestige of occupations and field of work.

Gottfredson proposes a developmental theory of occupational choice in which the major occupationally relevant elements of the self-concept - gender, social background, intelligence, interests, competencies and values - are incorporated into the self-concept at different stages of cognitive development as one's self-concept and view of the world becomes more differentiated and complex. Four main stages of development are postulated : *orientation to size and power* (ages three to five years); *orientation to sex roles* (approximately ages six to eight); *orientation to social valuation* (around ages nine to thirteen); and *orientation to the internal unique self* (beginning around age fourteen). These stages are based on Leland Van den Daele's (Van den Daele, 1968) descriptions of cognitive development and the formation of the ego-ideal.

During stage one children's conceptions of what they will do in adulthood shift from *magical thinking* when a child expresses fantasy preferences such as princess or bunny rabbit to preferences based on adult roles and activities. During stage two, children's preferences become sex-typed such that girls report preferences for female-dominated occupations and boys male-dominated ones. During the third stage children begin to recognise prestige differences between occupations as well as social class and ability differences among people, and their occupational preferences become limited to those appropriate to the child's self-perceived ability and social class. During the fourth stage adolescent's preferences are further circumscribed to fit in with the individual's interests, competencies and values.

Thus a largely irreversible, progressive circumscription of occupational preferences and alternatives takes place in which individuals gradually restrict

themselves firstly to actual occupations. Next they eliminate occupations perceived to be inappropriate to their sex, followed a few years later by the elimination of occupations considered inappropriate in terms of the individual's ability and social class. Finally preferences are further narrowed to be compatible with the individual's particular interests, capacities and values. Gottfredson suggests that once rejected according to an earlier criterion, these rejected options will not be reconsidered except in unusual circumstances.

When the time for implementation of occupational preferences approaches, individuals then embark on the process of *compromise* which is inevitable because the jobs people want may sometimes be very different from the jobs available to them. Gottfredson suggests that when balancing occupational preferences and perceived accessibility people seek out and generate relevant information. However this seeking focuses only on the occupations in the individual's social space, and is largely confined to the implementation period. Readily available sources of information, such as parents and friends, are surveyed first and a complete search of available information will rarely be undertaken. Finally Gottfredson outlines three main principles which govern the compromise process. Firstly she proposes that some aspects of self-concept are more central than others and will take priority when compromising occupational goals, such that aspects that are laid down earlier, such as gender self-concepts, are more strongly protected and less willingly compromised. It is hypothesized that people will typically sacrifice field of interest to maintain prestige and sex-type, and to some extent will sacrifice prestige for sex-type if that is also necessary. The second principle of compromise is that exploration of job options typically ends with the implementation of a satisfactory choice, not necessarily the optimal potential choice. The final principle is that people tend to accommodate psychologically to the compromises they make.

Gottfredson's theory has attracted a number of criticisms. Firstly it has been suggested that Gottfredson's theory fails to address gender differences in the sex-

typing of occupational preferences (males tend to be more sex-typed in this respect than females) (Taylor & Pryor, 1985; Pryor, 1987; Henderson *et al.*, 1988). Secondly, Gottfredson's contention that sacrifices can be made on one dimension only - field of work, prestige or sex-type - has been questioned (Taylor & Pryor, 1985) since the dimensions do not appear to be independent. Thirdly there is some debate over the timetabling of the developmental stages proposed by Gottfredson (Vondracek *et al.*, 1983). Fourthly Pryor (1985a) criticises Gottfredson's theory for its lack of a process account of the progression through the four developmental stages. In an attempt to rectify this Pryor (1985a) has proposed a composite theory which combines Gottfredson's and Krumboltz *et al.*'s theory. Fifthly it has been criticised for its purportedly inadequate conceptualisation of the self-concept (Pryor, 1985a; 1985b). The final weakness of the theory is that it is limited to childhood and adolescence rather than covering the whole life-span.

Gottfredson's theory is not based on empirical evidence although she does present a retrospective examination of existing research in support of her theory. The main investigator who has taken up Gottfredson's theory and subjected it to empirical testing is Richard Pryor. Pryor and his associate, Neville Taylor, have carried three empirical studies based on Gottfredson's theory. These studies (Taylor & Pryor, 1985; Pryor & Taylor, 1986; Pryor & Taylor reported in Pryor, 1987) provide substantial support for the importance of the compromise variables identified by Gottfredson and are broadly supportive of Gottfredson's description of the compromise process. However they also highlight a number of limitations of the theory. Over and above the aforementioned criticisms, Pryor (1987) also points out that Gottfredson's theory fails to provide for the existence of more than one compromise paradigm (for example, some people appear to be more willing to forfeit prestige before interests); and that it cannot account for those who persist and refuse to compromise. Pryor (1987) thus concludes that further elaboration of the theory is required. Similarly Holt (1989) found that engineering and social work

students differ in their compromise strategies, the former preferring to compromise on prestige, the latter on interest area, and therefore concluded that the situation was more complex than originally proposed and that some modification may be warranted. Other researchers have focused on the circumscription of occupational choices during childhood. For example Susan Henderson and colleagues (Henderson *et al.*, 1988) studied the occupational preferences of children aged five to fourteen and found that children make sex-typed occupational preferences at ages younger than six. In fact there is evidence of sex-typing of occupational preferences in children as young as three (Tremaine & Schau, 1979; Riley, 1981). They did however find evidence that social class and ability only influence occupational preferences after age nine, in line with Gottfredson's theory, ability being the more important of the two factors.

An overall evaluation of Gottfredson's theory is somewhat tentative, given the limited number of empirical studies that have been conducted. However it does appear to have many strengths, and with some modification, it may hold some promise as an integrative, synthesising theory of occupational choice generally and of women's occupational choice in particular.

It is now time to consider the other theories of women's occupational choice outlined above.

## **Biological theories**

In this section biological perspectives on women's occupational choice will be examined. Biological factors, it is suggested, give rise to cognitive/intellectual, personality/emotional and physical differences between the sexes which makes them more or less suited to particular occupations.

Whilst it is generally accepted that there are few sex differences in overall intellectual or cognitive ability, several theorists have suggested that biological differences between males and females may result in the sexes excelling in different cognitive fields, that is males being more skilled at spatial tasks and females at verbal tasks. This, they suggest, underlies and to some extent explains sex segregation in occupations. Three biological bases have been proposed : genetic, hormonal, and cerebral lateralisation. The genetic theory, originally proposed by Stafford (1961), is that superior spatial ability is passed on from one generation to the next on a recessive gene carried on the X chromosome, in much the same way as other sex-linked conditions such as colour-blindness. However there is little evidence to support this theory and it is now largely discredited (Bouchard & McGee, 1977; Scarr & Carter-Saltzman, 1982). Hormonal explanations for sex differences in cognitive abilities date back to the 1960's when Broverman *et al.* (1968) claimed that female sex hormones interfere with high-level intellectual functioning, but facilitate performance on lower-level repetitive tasks. Other researchers such as Dalton (1968) and Money and Ehrhardt (1972) have investigated the role of prenatal hormones on later cognitive ability. However, research evidence pertinent to these early attempts at linking hormones and cognitive ability has generally been contradictory or unsupportive (Maccoby & Jacklin, 1974; Rohrbaugh, 1981). It should also be noted that a study into prenatal hormones and future occupational preferences found no relationship between prenatal exposure to exogenous sex hormones and the preference for a male-dominated occupation during childhood or adolescence (Sandberg *et al.*, 1987).

Perhaps the most debated biological issue with regard to cognitive abilities is that of cerebral lateralisation or brain asymmetry, that is the extent to which the left cerebral hemisphere is specialised for language functions and the right is specialised for perceptual functions. The controversy began in the early seventies when Gray and Buffery (1971) proposed that the female brain is more asymmetrical or lateralised than the male brain and that this could account for

females superior verbal ability and males superior spatial ability. However, in the succeeding years several investigators (Levy, 1972; Sperry, 1974; Witelson, 1976) suggested the exact opposite, that is that it is the male brain that is the more asymmetrical. Subsequent reviewers have concluded that evidence favours the latter hypothesis (McGlone, 1980; Bryden, 1982), although both concede that the evidence is far from conclusive and that

*One must not overlook perhaps the most obvious conclusion, which is that basic patterns of male and female brain asymmetry seem to be more similar than they are different (McGlone, 1980).*

There are also those who assert that there is no convincing evidence for sex differences in cerebral lateralisation (Fairweather, 1976). In addition several researchers have argued that social explanations of sex differences in these cognitive abilities are sufficient (Oakley, 1981b; Betz & Fitzgerald, 1987). It is also necessary to point out that not all studies have found sex differences in spatial and verbal ability, and of those that have, the degree of overlap between the sexes is substantial. Meta analysis of relevant studies reveals that the extent of sex differences on verbal ability is around a quarter of a standard deviation, and for spatial ability the corresponding figure is around a half of a standard deviation (Hyde, 1981). Such differences are insufficient in explaining sex differences in occupational choice and attainment since these differences are of a far greater magnitude than differences in cognitive abilities.

Another biological approach to women's occupational choice is that which suggests that the differential levels of sex hormones in males and females cause men to be more aggressive and women to be more nurturant, which makes them suited to different types of occupations. However this view can be challenged on three counts : firstly that research on sex differences in aggression and nurturance in humans have produced mixed and contradictory evidence and the existence of such differences remains in question (Archer & Lloyd, 1982); secondly that the links between hormones and aggressive or nurturant behaviour, in humans at least, have yet to be clearly established (Rohrbaugh, 1981; Sayers,



1982); and thirdly that there are few male-dominated occupations that require aggressive (as opposed to assertive) behaviour and there are many female-dominated occupations which do not involve nurturant behaviour. There is some recent evidence that housewives have lower levels of testosterone than women in full-time employment (Bancroft *et al.*, 1983) and that women in professional, managerial and technical jobs have higher testosterone levels than female clerical and sales workers and housewives (Purifoy & Koopmans, 1980), but as these authors point out hormonal differences could be as much a result of, rather than a cause of, occupational differences.

The menstrual cycle is another biological factor which, it has been argued, adversely affects women's occupational performance and therefore makes them unsuited to certain types of employment. Research indicates that a large majority of both male and female managers believe that women's work performance is impaired by the menstrual cycle (Gaston, 1988), despite the fact that there is very little research evidence to support this view (Sommer, 1982; Ussher, 1989). It is also interesting to note that work performance fluctuates more with the day of the week than with the menstrual cycle (Gaston, 1987).

Biology plays perhaps its most obvious role in determining size and strength differences between men and women. Such differences might account for women's underrepresentation in certain physically demanding occupations. However this issue is far from clearcut. For example, evidence suggests that nursing, a female-dominated occupation, requires as much expenditure of energy in a typical work shift as do mining and fishing which are amongst the most physically demanding of male-dominated occupations (Wardel, 1976). Indeed it has been estimated that nurses working in geriatrics can lift as much as two and a half tons an hour (Steven, 1989). It is also true that there is a fair degree of overlap between the sexes in physical strength - it is estimated that 25 per cent of women can do more physical work than 25 per cent of the least capable men (Henschel, 1971). It has also been argued that most physically demanding jobs

can be redesigned and modified to make them more suitable for women, a move which is likely to benefit men as well as women (Redgrove, 1987; Cox, 1988)

Reproductive differences also warrant some discussion here. Whilst it is true that certain workplace hazards, e.g. lead, mercury, anaesthetic gases, have adverse effects on pregnancy and foetal health (Messite & Welch, 1987), this cannot be held responsible for the constrained nature of women's occupational choices for three reasons. Firstly relatively few occupations involve potentially hazardous materials; secondly pregnancy typically represents a tiny proportion of women's span of employment; and thirdly there is evidence that sperm are also vulnerable to toxic environments, therefore jobs should arguably be redesigned to protect the reproductive vulnerabilities of both males and females (Seymour, 1988).

It must be concluded that if the not uncontentious view that biological factors have some influence on women's occupational choice is accepted, any such influence is necessarily limited and certainly not a major cause of occupational segregation.

## Psychodynamic theories

The classical Freudian view of women's occupational choice is that women's location in the home and to a lesser extent in female-dominated occupations is the result of the successful resolution of the oedipal complex and identification with the mother. The desire to enter or actual entry into a male-dominated occupation is thought to be a result of the *masculinity complex* in which women, it is suggested, refuse to accept that they have been *castrated* and retain the phantasy of really being a man (Freud, 1925). Such views have been severely criticised (e.g. Millett, 1970) and are no longer considered tenable.

A few feminist writers such as Juliet Mitchell (1974) have argued that classical psychoanalysis is of relevance to women's situation today, especially when penis envy is reinterpreted as the envy of men's power and social position, and when psychoanalysis is viewed as an analysis of, rather than a recommendation for, patriarchal society. However it is post-Freudian analysis, most notably the work of Karen Horney and of the *object relations* school, that is most evident in contemporary psychodynamic accounts pertaining to women's occupational choice. One of the main tenets of Horney's theory is that males experience a deep-seated envy of women's capacity for childbearing - a type of *womb envy*. It is this envy, she postulates, that is the driving force behind men's creation of the state, religion and science (Horney, 1931). But, she says, since these creations fail adequately to compensate men for their envy of women, they try still further to compensate for it by seeking to keep women out of "their domains", and by devaluing women and overvaluing masculinity. Contemporary writers, most notably Brian Easlea (1981; 1982) have taken up Horney's ideas and applied them to men's domination of and women's exclusion from science. Drawing upon a number of sources including an analysis of the nuclear arms race, Easlea suggests that much of scientific activity is rooted in men's envy of women's reproductive capacity, and is expressive of the compensatory desire to discover the secrets of nature and to create something as awesome and powerful as life.

Somewhat different interpretations emanate from the object relations school (Fairbairn, 1944; Winnicott, 1965; 1971). The main theorists whose work is relevant to women's occupational choice who draw on object relations theory are Nancy Chodorow (1978) and Louise Eichenbaum and Susie Orbach (Eichenbaum & Orbach, 1982; 1983). Essentially Chodorow proposes that the fact that women are the primary caretakers of children has differing consequences for the psychologies of females and males. Mothers, it is suggested, tend to experience their daughters, on account of their being the

same sex as themselves, as merged and identified with them and as a result do not promote in them a high degree of separation-individuation. The daughter, in turn, is able to base her gender development on identification with the mother of whom she knows through extended daily personal experience. Thus girls grow up with a sense of themselves as merged with others and with a personal identity based on relationships. This is not the case for males who have to base their gender development on a tenuous identification with men with whom they have only limited interaction, which renders this identification somewhat abstract. This identity is also based on negation of the mother. Furthermore mothers typically experience and relate to sons as separate and different from themselves, and consequently promote their separation-individuation. These processes lead boys to develop a sense of self as separate, distinct and with strong boundaries between themselves and others. Chodorow argues that women's mothering produces asymmetries in the relational identities of females and males which equip females for an adult life centred around mothering, and around those female-dominated occupations that are an extension of the mothering role, whereas males are equipped for the world of employment, particularly in occupations with impersonal, abstract or instrumental role requirements.

Eichenbaum and Orbach's thesis is similar to that of Chodorow, but in addition to the gender-differentiated processes of parent-child identification outlined above, they also note the social proscribed nature of women's role. They argue that society makes certain psychological demands of women - that they defer to others; that they must be connected to others; and that they must be attuned to the needs of others - which are conveyed to daughters through their relationships with and the behaviour of their mothers. Thus women grow up with a sense that they must look to the needs of others before satisfying their own needs and with a heightened capacity for empathy and nurturing. They therefore typically seek adult roles involving emotional caretaking, such as motherhood and several female-dominated occupations.

## Radical feminist theories

Radical feminist theories have much in common with and often draw upon the psychodynamic theories outlined above. The basic radical feminist argument is that women are inherently different from men and possess a set of characteristics which influence every aspect of their lives including employment, and which are viewed as equally valuable or superior to the characteristics such theorists attribute to men. Writers differ in the labels they give to the particular constellation of so-called female characteristics. Marilyn French (1985), for example, writes about the *feminine principle*, Carol Gilligan (1982) of women's *relational identities*, and Judi Marshall (1984) of women's *communion-based* life strategies. These theorists basically assert that women's identities are based on connectedness and relationships with others and have great capacities for empathy and nurturance. Some have gone further along this line and argued that women have a distinct cognitive style. For example Adrienne Rich characterises women's thought as "the unconscious, the subjective, the emotional" in contrast to men's thought which she describes as "the structural, the rational, the intellectual" (Rich, 1976). Similarly Rose Coser (1981) argues that supposed gender differences in field dependency result from females' less detached identities, and Marshall (1984) suggests that women primarily perceive the world holistically, with an awareness of context and the interrelationships between elements. There are differences of opinion about the genesis of *women's characteristics* but it is typically located within women's reproductive biologies (Rich, 1976; Cutmore-Smith, 1986) or in psychodynamic mother-child relationships (Gilligan, 1982). Radical feminist theorists suggest that women's differential characteristics will influence both their occupational choice and development (Forrest & Mikolaitis, 1986) and their behaviour and workstyle in employment (Marshall, 1984; Cutmore-Smith, 1987).

Several criticisms can be levelled at both the radical feminist and the psychodynamic accounts outlined above. Firstly there is very little empirical evidence to support the notion that women differ in their cognitive styles (Maccoby & Jacklin, 1974). Secondly the resurgence of interest in motherhood and the revaluing of *female* characteristics is not unproblematic, for as Hooks points out

*Romanticising motherhood, employing the same terminology that is used by sexists to suggest that women are inherently life-affirming nurturers reinforces the central tenets of male supremacist ideology.*  
(Hooks, 1985)

Thirdly, Lynne Segal (1987) argues that such approaches do not account for the diversity of experiences within the family and fails to adequately address structural inequality. Fourthly Janet Sayers has pointed out problems with the biological essentialist position that underlies much of this work (Sayers, 1982) and further argues that it is inadequate in that it cannot account for women's resistance and efforts to change society (Sayers, 1986). Finally it should be noted that whilst psychodynamic and radical feminist theories may tell us something about why women choose the ultimate female-dominated occupation - motherhood, they are limited in their ability to explain women's preponderance in other female dominated occupations since large areas of female employment, such as clerical work, cleaning, and light assembly, do not involve emotional caretaking and nurturing.

## **Sex-role socialisation theories**

Socialisation is the means by which culture is transmitted and sex-role socialisation refers to the transmission of sex appropriate behaviour and roles. There are four basic processes underlying sex-role socialisation. Firstly, skills, habits and some types of behaviour are learned as a consequence of reward and punishment. Secondly there is vicarious learning in which parents and

significant others provide role models for imitative behaviour. Thirdly, the child identifies with one or both parents and incorporates and internalises the roles and values of the parent. Fourthly the child as an active agent seeks to structure and make sense of his or her environment. With gender operating as a basic category in this environment the child rapidly incorporates information about sex roles and stereotypes (Weinreich, 1978).

Sex-role socialisation is thought to begin from the moment of birth. There is a large body of evidence demonstrating differences in parental behaviour depending on the gender of the infant (e.g. Thoman *et al.*, 1972; Rodholm & Larsson, 1979) or child (Etuagh & Hall, 1980), although it should be pointed out that such differentiated behaviour may be an artifact of observation (Lewis, 1986b). Sex-role stereotyping is further reinforced by the education system (Delamont, 1980) and the sex-differentiated behaviour of teachers (Fagot, 1981). It is perpetuated further still by the media, such as television (Durkin, 1986) and children's books (Children's Rights Workshop, 1976).

Thus by the time young people reach adulthood and the time when occupational decisions are made, they have developed well-entrenched and distinct sex-roles which are thought to underlie women's entry into female-dominated occupations and men's entry into male-dominated occupations.

Subsumed within the sex-role socialisation approach to women's occupational choice are several other theories or subtheories including those pertaining to women's attributions of success and failure; their sex-role self-concept; sex-role attitudes; achievement motivation; fear of success; and role model influence. However one particular sex-role socialisation theory which has received a lot of critical acclaim and which may be a major theory of the 1980's is the *self-efficacy* theory of women's occupational choice outlined below.

## Self-Efficacy theory

The self-efficacy theory of women's occupational choice (Hackett & Betz, 1981, Lent & Hackett, 1987) has its roots in Albert Bandura's (1977, 1982a) *social learning theory* which he now refers to as *social cognitive theory* (Bandura, 1986). Essentially what Bandura suggests is that self-efficacy expectations (that is beliefs about one's ability to successfully perform a given behaviour) are a major determinant of behaviour and behaviour change. Self-efficacy expectations are thought to influence whether behaviour will be initiated, how much effort will be expended, and how long it will be maintained in the face of obstacles or adverse experiences. Self-efficacy is not conceived of as a static personality trait, but rather a dynamic aspect of the *self-system* that interacts in a complex manner with outcome expectations, with capabilities and performance accomplishments and with the environment. It should be noted that Bandura's contention that both self-efficacy expectations and outcome expectations influence behaviour is not dissimilar to Vroom's proposal that behaviour is the result of the interaction between expectancy and valence (see Chapter Two). However Bandura's view is unique in his assertion of the primacy of self-efficacy over other possible influencers. Self-efficacy expectations are acquired via four main routes : *performance accomplishments*; *vicarious experience*, including observational learning through modelling; *verbal persuasion*; and through the individual's *physiological state*. Bandura conceptualises self-efficacy theory as being applicable to all areas of human behaviour. Research attests to its usefulness in explaining a diverse range of behaviour including alcoholism (Rollnick & Heather, 1982); contraceptive use (Levinson, 1982); gymnastics (Lee, 1982); and sales performance (Barling & Beattie, 1983) amongst others.

In 1981 Gail Hackett and Nancy Betz proposed that Bandura's self-efficacy theory might usefully be applied to the domain of women's occupational choice (Hackett & Betz, 1981). Thus they formulated what they term *career self-efficacy theory*. They suggest that the socialisation experiences of girls and women may cause them to fail to develop strong expectations of self-efficacy



particularly in relation to male-dominated occupations. In the course of growing up girls typically receive fewer opportunities for performance accomplishments relevant to male-dominated occupations than their male counterparts. They also tend to lack the vicarious experiences that might produce strong occupational self-efficacy expectations in that there is a dearth of women in male-dominated occupations in children's literature, on television and in real life. As far as verbal persuasion is concerned, traditionally male activities, behaviours and occupations are generally encouraged in boys but discouraged in girls. As a consequence of these experiences women, it is suggested, lack strong expectations of self-efficacy with regard to occupational behaviour in general and traditionally male occupational behaviour in particular which in turn contributes to women's underrepresentation in male-dominated areas of employment.

It should be noted that the ideas underlying Hackett and Betz's theory are not entirely new or without precedent. Similar concepts have been proposed by several authors. For example, Mansfield (1973) looked at women's self-perceived abilities; Lenney (1977) writes about women's self-confidence in achievement settings; Stake (1979) has investigated women's self-estimates of competence; and Collins *et al.* (1980) has studied women's perceived personal success.

Hackett and Betz's theory was investigated by the present author in a study reported in Chapter Five. Chapter Five also includes a discussion of methodological and theoretical problems surrounding self-efficacy theory, and a review and evaluation of the empirical evidence for a self-efficacy theory of women's occupational choice.

#### **Attributions of success and failure**

Another body of evidence has concentrated on the consequences of women's apparently low self-efficacy expectations or expectations of success (Meece *et al.*, 1982). According to attribution theory performance consistent with expectations

(that is poor performance by females and high performance by males) will be attributed to stable internal factors such as ability, while performance inconsistent with expectations (high performance by females and low performance by males) will be attributed to temporary factors such as luck or effort. It is therefore reasoned that females and males differential expectancies of success will result in differential attributional patterns (Valle & Frieze, 1976; Deaux & Farris, 1977). However Dweck *et al.* (1978) hypothesise that gender-differentiated attributional patterns are the result of the differing nature of teachers' criticisms of the work of boys and girls. Whatever the cause, the sexes do appear to differ in their attributions. The mass of research evidence on sex differences in causal attributions that accumulated during the 1970's may be summarised as follows. Males tend to attribute their successes more to ability than females; females typically make more luck attributions for success than males; and females tend to attribute their failures to lack of ability more than males do (Viaenne, 1979). However it should be noted that not all studies fit the predicted pattern, for example some researchers report that females attribute failure to luck (Bar-Tal & Frieze, 1977).

Attributional patterns have been found to depend on the sex-type of the task in question. Thus the gendered attributional patterns outlined above are more likely to operate when success or failure is in relation to a task or activity perceived as or labelled *male* for females, and *female* for males (Deaux, 1977; McHugh & Frieze, 1982; Deaux, 1984).

This theory has obvious applications to women's occupational choice. It is postulated that girl's low expectations of success in traditionally male areas such as mathematics and science, leads them to attribute any successes in these fields to luck or effort and any failures to a lack of ability. This pattern of attributions then further reinforces and perpetuates their low expectations, and leads to avoidance of mathematics and science or poor performance as a result of a self-fulfilling prophecy. This leads to a situation in which the majority of

women are ill-equipped to enter male-dominated occupations. In addition male-dominated occupations themselves may be viewed as *male* tasks or activities and this cycle of low expectations and non-confidence-building attributional patterns presumably operates at the occupational level as well, when women have entered male-dominated jobs.

### **Sex-role self-concept**

Sex-role self-concept refers to the degree to which individuals perceive themselves to be *masculine* or *feminine*. The main sex-role self-concept theorist is Sandra Bem (1974, 1975, 1978). She proposed that some people have the capability of displaying both masculine and feminine behaviour, they were what she termed *androgynous*. She developed an instrument to measure androgyny - the Bem Sex Role Inventory. A similar instrument - the Personal Attributes Questionnaire - was developed by Spence *et al.*, (1974) although they relabel masculinity *instrumentality* and femininity *expressivity*.

In terms of women's occupational choice it is argued that women with primarily feminine sex-role self-concepts will seek to implement these in the traditionally female domain of the home or in female-dominated occupations, whereas women who are more androgynous or masculine will be more career-oriented and are more likely to prefer male-dominated occupations. The research evidence pertaining to sex-role self-concept and women's preference for or entry into male-dominated occupations is reviewed in Chapter Four.

There are several problems in sex-role self-concept theory. Firstly there are problems with the measurement of masculinity, femininity and androgyny. For example factor analytic studies of sex-role self-concept measures typically find a number of factors over and above masculinity and femininity (Locksley & Colten, 1979; Pedhazur & Tetenbaum, 1979; Pearson, 1980). The *median-split* method of classifying individuals as masculine, feminine, androgynous or undifferentiated, the most widely used method, has also been criticised on

methodological grounds (Hargreaves, 1986). Further criticism centres around the labelling of traits as masculine and feminine, a practice which may perpetuate the notion that certain characteristics are appropriate for one gender only (Lott, 1981), and because they imply false dichotomies which overemphasise between gender and underemphasise within gender differences (Wallston, 1981).

In 1981 Bem revised her theory and renamed it *gender schema* theory (Bem, 1981). Essentially Bem now takes a cognitive or information-processing approach to sex-role stereotyping. She postulates that sex-role socialisation causes individuals to become sex-typed, and the degree of sex-typing determines the extent to which individuals engage in *gender-schematic processing*, that is the propensity to process information in terms of a cognitive network of sex-related associations. Gender schema theory has received some criticism on theoretical grounds (Pyke & Graham, 1983; Hargreaves, 1986), and has, as yet, rarely been discussed in relation to women's occupational choice.

### **Sex-role attitudes**

A distinct but related concept is that of sex-role attitudes. Sex-role or feminist attitudes are the attitudes individuals hold about the right and roles of women in society. Such attitudes are typically measured by instruments such as the *Attitudes Toward Women Scale* (Spence & Helmreich, 1972). As far as women's occupational choice is concerned, it is postulated that women with feminist sex-role attitudes will tend to prefer male-dominated occupations, whereas those holding more traditional attitudes will be content in domestic roles or in lower status female-dominated occupations. See Chapter Four for a review of the sex-role attitudes of women working in or aspiring to male-dominated occupations.

The measurement of sex-role attitudes is a contentious area. The majority of measures of sex-role attitudes assess *liberal feminist* attitudes, and as such may not give a true picture of pertinent attitudes. For example Sue Condor (1986) found that women who were classified as holding traditional views, nevertheless

espoused many "pro-women" views and generally held men and masculine qualities in low esteem. Similarly Lynne Segal writes :

*There are women who see themselves as feminists, sometimes even staffing the new women's centres... who reject most of the demands of the women's movement. There are others who might well support all those demands, but who equally adamantly deny that they are feminists. It is much less clear today what the moods and motives of feminists are supposed to be, or what it is to be a feminist. (Segal, 1987).*

Thus it becomes clear that feminism is not simply a matter of agreeing or disagreeing with a set of ideas and principles. It is not a unitary category, but rather a concept under a continual process of negotiation (Griffin, 1988). It is then only from this wider perspective that the influence of sex-role or feminist attitudes on women's occupational choice can be understood.

#### **Achievement motivation**

Another sex-role socialisation factor that has been used to explain women's position in low status female-dominated jobs and in the home is achievement motivation. It is argued that as a result of sex-role socialisation the majority of females fail to develop strong needs for achievement and are consequently not motivated to enter prestigious male-dominated occupations. See Chapter Four for a review of research on the achievement motivation of women aspiring to or working in male-dominated occupations.

The concept of achievement motivation stems from the work of John Atkinson (Atkinson & Feather, 1966) and David McClelland (McClelland *et al.*, 1953). These researchers found that males produced more achievement imagery in a projective test when they were in a competitive situation, but interestingly the opposite was true for females. During the 1970's a number of researchers attempted to explain this discrepancy. Hoffman (1972) theorised that females are motivated by a desire for love, approval and social approbation, whereas

males are motivated by mastery strivings and a desire for excellence. Stein and Bailey (1975) disagreed and argued that women do not strive for social approval, but rather that the social arena is where women strive for excellence. An alternative perspective is offered by Lipman-Blumen (1972) and Tangri (1974) who suggest that women satisfy their achievement needs vicariously, through their husbands. Others, however, prefer to conceptualise women's need for achievement as inhibited by the effects of sex-role socialisation, rather than being in some way different from the achievement needs of men (Fitzgerald & Crites, 1980).

The debate on women's achievement motivation has been somewhat overshadowed by the mass of discussion and research activity surrounding the next concept to be presented - the fear of success.

### **Fear of success**

Coupled with the idea that women suffer from low achievement motivation is the notion that women experience a *motive to avoid success* or a *fear of success*. The concept of fear of success is derived from the work of Matina Horner (1968, 1972). Horner asked male and female students to complete a story beginning "At the end of her (his) first term finals Ann (John) finds herself (himself) at the top of her (his) medical school class". Horner then analyzed the stories and found that females produced negative imagery, such as social rejection, loss of femininity, and cue denial, in about 65 per cent of the stories, whereas such imagery was evident in less than ten per cent of the men's stories. This led Horner to postulate the existence in women of a motive to avoid success, which she conceptualised as a stable personality trait laid down in childhood in conjunction with sex-role stereotyping. She further suggested that this fear of success was most prevalent in high-achieving women in situations where they had to compete with men. In terms of occupational choice it was hypothesised that women's fear of success, particularly in relation to male-dominated occupations, leads them to avoid such occupations and opt instead

for the relative safety of female domains.

There are several problems with Horner's propositions and her theory has been widely criticised. For instance there have been major problems of replication (Levine & Crumrine, 1975). It has also been found that men show a great deal of fear of success when completing stories about male success in female-dominated areas of employment (Bardwick, 1979). They also show fear of success when completing the standard story with the female cue, and women show much less fear of success when completing the story with the male cue (Monahan *et al.*, 1974; Jackaway & Teevan, 1976). This, it has been suggested, indicates that the stories may be merely tapping sex-role stereotypes rather than measuring personal motivation (Zuckerman & Wheeler, 1975). Condry and Dyer (1976) assert that fear of success imagery is a reflection of "realistic expectancies about the negative consequences of deviancy from a set of cultural norms of sex appropriate behaviour". Shaver (1976) has also questioned the interpretation of fear of success, and suggests that the negative imagery may result from a natural envy of successful people, rather than fear of success. One final criticism of Horner's work lies in her use of a projective technique and the purported lack of reliability and validity of such techniques (Ward, 1979).

Whilst the concept of fear of success has to some degree fallen into disrepute, the notion underlying it - that women experience feelings of unease and inconsistency between achievement in traditionally male areas and their own sense of femaleness or femininity - still has its exponents. For instance Sherman (1983) in her research on female mathematics achievement reports evidence of *sex-role strain* which leads many girls to downplay their abilities. Similarly Benbow and Stanley (1980) suggests that girls' avoidance of mathematics can be largely accounted for by their fear of social disapproval.

A final pertinent comment on fear of success comes from Paludi & Fankell-

Hauser (1986) who found very little evidence of fear of success *per se* in women, but they did note that a large proportion of women wondered if their achievements were or would be worth the price.

### **Role models**

The final strand in sex-role socialisation theory is the influence of *role models* on women's occupational choice. As noted earlier vicarious learning is thought to be an important process in the development of sex-roles. Role models, either real-life or depicted in the media, are thus thought to be instrumental in the process of women's occupational choice. Since same-sex modelling is generally thought to be the most efficacious, researchers have tended to focus on female role models, although there is some evidence for the role modelling influence of fathers (Hennig & Jardim, 1977; Miles, 1985).

A large amount of research attention has focused on the part played by employed mothers as role models for their daughters. Much of this research was predicated on the notion that a mother in paid employment will necessarily be a positive role model for her daughter, but this is not always the case (Clement, S. 1986a). Whilst there is some evidence to support this notion (see Chapter Four), there is also an emerging body of evidence demonstrating that employed mothers can be negative role models for their daughters (Sorenson & Winters, 1975; Kahn, 1982; Washor-Liebhaber, 1982). Dissatisfied non-employed mothers can also act as negative role models instilling a high career-orientation in their daughters (Altman & Grossman, 1977; Miles, 1985). It is evident that factors such as the daughter's perceptions of her mother's feelings about being employed and her satisfaction with her particular employment are likely to determine the direction of the influence of maternal employment.

Role models (either real life or depicted on film) typically play a key role in interventions designed to encourage girls and women to consider entering male-dominated courses or occupations, such as the *Girls into Science and Technology*



(GIST) project (Whyte, 1986); the *Girls and Occupational Choice* project (Chisholm & Holland, 1986); *Women's Training Roadshows* (Pilcher *et al.*, 1989); the *Visiting Women Scientists Program* (Weiss *et al.*, 1978) and the *Who's that under the hard hat ?* campaign (Pryor, 1985c). The effectiveness of such interventions is unclear. For example Plost & Rosen (1974) and Foss and Slaney (1986) report finding an increase in traditionally male occupational preferences following a film about women in male-dominated jobs. Similarly Miller (1986) quotes four studies that demonstrate the efficacy of models in reducing the sex-stereotyped nature of children's occupational preferences. However Pilcher *et al.* (1989) found that the film and real life role models in their intervention failed to alter girls's occupational preferences which remained overwhelmingly within the realms of female-dominated employment. It is also interesting to note that, in this study, the occupations of the role models were often downgraded in line with traditional patterns of women's employment, such that, for example, a woman bank manager was remembered as a bank clerk. In a similar vein Drabman *et al.* (1981) provide empirical evidence that children alter their perception and memory of models in gender-atypical occupations to fit previously learned occupational sex stereotypes. The GIST project which included visits by women scientists only resulted in four per cent more females opting for physical science. It should also be noted that Pryor found changes following an intervention designed to encourage more young women to enter male-dominated trades were only temporary (Pryor, 1985). Therefore the influence of role models in interventions remains in question.

The influence of *mentors* or *sponsors* also deserves some consideration here. Whilst mentors have many functions, one important facet of the mentoring relationship is role modelling, particularly in the case of women mentoring women (Kram, 1986). However whilst some claim that mentoring relationships are of prime importance to women's occupational development (Clutterbuck, 1985), others assert that such development is not necessarily impeded by the absence of mentoring relationships (Miles, 1985).

Overall it must be concluded that whilst role models may play some part in determining women's occupational choices, the evidence for this is mixed, and suggests that role modelling is a complex process whose exact influence of women's occupational choice has yet to be determined.

## **Life-Course theories**

Life-course approaches to women's occupational choice fall into three overlapping categories : family life-cycle; developmental stages; and historical change / generational approaches.

### **Family life-cycle approaches**

Much work has been undertaken into the family life-cycle of women and its interaction with women's occupational roles (see section on domestic theories of women's occupational choice below). A typical family life-cycle approach is to map out women's occupational patterns. One interesting example of this is Gail Sheehy's classification of women as *caregivers* (women who marry early and intend to spend the whole of their adulthood in a domestic role); *nurturers who defer achievement* (women who postpone strenuous career efforts to marry and start a family); *achievers who defer nurturance* (women who postpone motherhood and often marriage in order to concentrate on occupational pursuits); *integrators* (women who attempt to integrate major occupational involvement and motherhood in their twenties); *never-marrieds*; and *transients* (women who choose impermanence in their twenties and "wander sexually, occupationally and geographically").

### **Developmental stages approaches**

Developmental stage theorists postulate that individuals develop and pass through a predictable series of stages through their life span. Gottfredson's

theory, outlined above is one such stage theory, and one that relates in particular to women's occupational choice. However a major weakness of Gottfredson's theory is that it does not extend into adulthood. In fact Van den Daele (1968), upon whose work Gottfredson's is based, postulated five stages of development, only four of which are described by Gottfredson. Van den Daele's fifth stage, which the majority of those he studied (age three to eighteen) had not yet reached, is described as a stage when people "strive for self-realization in terms of social or transcendent good" and effect "a creative synthesis of personal experience" (Van den Daele, 1968). It is true to say that whilst the developmental phases of childhood and adolescence have received a great deal of attention, this is not the case for development through adulthood, which has been described by Levinson *et al.* (1978) as "one of the best kept secrets in our society". However a few theorists have charted developmental changes in adulthood. For example Erik Erikson (1959) suggested that there are three stages of adulthood : young adulthood (age 20 to 35) when individuals tackle the issue of *intimacy vs. isolation*; maturity (age 35 to 65) a time of *generativity vs. stagnation*; and old age (age 65 onwards) when the main psychosocial task is one of *integrity vs. despair*. Daniel Levinson (Levinson *et al.*, 1978) is another major contributor to the study of development in adulthood. He asserts that there are three major transitions, that is times of crisis when the past and present are reviewed and major changes occur, in adult life. These are the *early adult transition* (age 17 to 22), the *mid-life transition* (age 40 to 45) and the *late adult transition* (age 60 to 65). He also postulates that more minor transitions occur around age 30 and age 50. Osipow (1983) has reviewed research pertinent to occupational development in adult life and reports that dissatisfactions with one's occupational life often surface in midlife (around age 40) and this is a time when career change often occurs. Gail Sheehy (1974) has also mapped out changes in adulthood, although, unlike Levinson, she studied women as well as men. Her findings are broadly similar to those of Levinson outlined above. Sheehy also found evidence of a midlife transition, from around age 35 to 45, which she termed the *deadline decade*, but noted that women

tended to experience crisis and change earlier in this decade than did men. She also noted that a critical period for change occurred around age 30 for both men and women. Sheehy asserts that these *passages* through adulthood are relatively independent of external events such as the family life-cycle, however the behaviour that ensues as a result of this *inner turmoil*, such occupational changes, leaving employment to have a child, or returning to work after a period of childrearing, is a reflection of both developmental stage and family life-cycle variables.

### **Historical change / generational approaches**

The developmental stage approach has been criticised for its implicit assumption of biological or social inevitability, irrespective of social conditions (Allatt & Keil, 1987). The *life-course* perspective is one which encompasses the family life-cycle and stage variables outlined above, but also takes changing historical conditions into consideration, thus allowing for the interaction of the individual with social structures, and for the effects of *generation* (Oakley, 1987). Historical or generational variables are rarely studied in isolation. For example Hareven (1982) makes the useful distinction between individual time (age and stage), family time (stage in family life-cycle) and historical time (economic, social and political conditions), which all influence women's employment over the life-course. From this perspective Susan Yeandle (1987) has analyzed the working lives of women at midlife and found a multiplicity of factors influencing their employment histories the most important of which were : the maturity of children and their departure from the parental home; the illness and death of parents and other kin; the acquisition of the role of grandparent; the approach of retirement; and changes in neighbourhood or community social relations. The life course approach has also been utilised in the study of women's resumption of employment following childbirth (Brannen, 1987), childrearing (Bird & West, 1987) and women's occupational behaviour in general (VanDusen & Sheldon, 1976; Huston-Stein & Higgins-Trenk, 1978; Perun & Bielby; 1981).

To conclude this section, it is important to note that whilst life-course approaches have a long history (Sugarman, 1986), the field remains somewhat disparate and patchy and may be described as "A motley and monolithic movement" in which "everyone is invited to contribute his/her voice to the songfest without any restrictions on melody, lyrics and arrangements" (Kaplan, 1983). The application of a life-course perspective to women's occupational choice and development, however, appears to be a promising avenue for research.

## Domestic theories

The theories described in this section assume that women's domestic roles - as wives, mothers and carers - have a major influence on women's occupational choice. The many practical problems women face, such as spouse's geographical mobility, the inequitable division of housework, lack of childcare facilities and difficulties resuming employment after a period of childrearing, were discussed in Chapter One. Here the focus is on psychosocial rather than practical problems.

The two major domestic theories are that of *role conflict* and *role overload*. Role conflict is defined as the conflicting demands within one role or between two roles. Here we are mainly concerned with the conflict between two roles - the role of worker and the role of wife/mother - that is *interrole conflict* (O'Leary, 1977). This conflict may be viewed as being psychological in nature stemming from the differing demands of the roles (O'Leary, 1977), or it may be a conflict of allegiance and normative priorities (Coser & Rokoff, 1971). The widespread feelings of guilt experienced by mothers returning to employment (Sharpe, 1984) are thought to be a manifestation of role conflict. Role conflict is generally considered to be a greater problem for women than men, since men's work and family roles are typically more *sequential* than women's, which

tend to be more *simultaneous* (Hall, 1972). Also, as Pleck (1977) points out there is a *differential permeability* of the boundaries between employment and family roles for men and women, such that for women the family role is allowed to intrude into the employment role to some degree (e.g. taking time off when children are ill), whereas for men the employment role is typically allowed to intrude into the family role (e.g. bringing work home).

Role overload occurs when the overall workload exceeds needs or resources. It is largely a question of there not being enough hours in the day to satisfactorily undertake both employment and domestic roles - women's so-called *double-day* (Malos, 1980). There is some evidence that role overload is subjective rather than objective in nature (Yogev, 1982).

The main argument of domestic theorists, then, is that actual or anticipated role conflict and role overload lead women into part-time or less demanding female-dominated areas of employment, and away from male-dominated jobs which typically have long hours and heavy demands.

It is interesting to note that recent research puts an increasing emphasis on the perspective that multiple roles can provide positive rather than stressful experiences (Nieva, 1985). This is known as *role accumulation* theory (Sieber, 1974). It is argued that multiple roles can provide psychological protection, so that unhappiness in one role can be offset by satisfaction in another role (Crosby, 1984). There is some empirical evidence to support the beneficial effects of multiple roles (Barnett *et al.*, 1982; Crosby, 1982), although other researchers have found the coexistence of role conflict and role accumulation (Valdez & Gutek, 1987). Another interesting concept is that of *role underload* (Lewis & Cooper, 1988). Role underload is thought to result when women are underutilising their skills having reduced their job involvement following childbirth. A recent book on women's experiences of motherhood and the "balancing act" of combining motherhood and paid work (Gieve, 1989).

illustrates that many women experience a complex mix of role conflict, role overload and role accumulation, and even in some case role underload as well.

One "domestic" factor that has received little study, but which is likely to have a substantial influence on women's occupational choice and development is divorce. At least one study (Bird and West, 1987) has found this to be the case.

It should be noted that all problems of the family-employment interface are more difficult in the presence of children, especially pre-school children (Lewis & Cooper, 1988)

There are three main problems with domestic approaches to women's occupational choice. Firstly such approaches ignore women who don't marry or have children, but who's occupational choices are often nevertheless constrained. Secondly they largely focus on only one stage of women's lives, the childbearing stage, but for most women there are also long periods of time between leaving education and the commencement of childbearing, and after children have grown up and become independent. A third criticism that can be levelled at domestic theories of women's occupational choice is that of Feldberg and Glen (1978) who argue that it is inconsistent and unhelpful to explain women's occupational behaviour in terms of domestic factors (what they term the *gender model*) but not that of men, whose behaviour is typically explained in terms of a *job model*.

Finally it is important to note that the effects of domestic roles of women's employment are complex and multidimensional and depend on such factors as the woman's educational level, the occupation and attitudes of her partner and the support facilities available to her. However relatively little research has been directed at these issues (Nieva & Gutek, 1981).

## Gender Relations theory

The *gender relations* model of occupational segregation (Cockburn, 1983, 1986, 1987; Game & Pringle, 1984; Webb, 1988) is a major emerging theoretical perspective which has grown out of the apparent inadequacy of sex-role socialisation accounts. Such accounts emphasise the relatively passive moulding of individuals from early childhood into male and female roles and are limited in their ability to explain the complex and diverse nature of occupational segregation. It is argued that there is little to link female-dominated occupations such as librarianship, cleaning, and typing, other than the fact that it is women who do these types of work. Gender relations theorists suggest that to fully understand the factors operating in the occupational choice process of women it is necessary to look, not just at women, nor at men, but rather at the relations, particularly the power relations, between them. Basically these theorists argue that there is an ideology of masculinity and femininity in the world of work which sustains and legitimates the division between men's jobs and women's jobs, and creates a hierarchy in which women's jobs are located below those of men. Doing gender-specific work is in itself part of what defines *real men* and *real women* (Webb, 1988). It is further argued that there is nothing inherent in jobs that makes them either appropriately male or female and that there is nothing static or fixed about the sexual division of labour, which is seen as being continually renegotiated. What remains fixed, however, is the distinction between men's work and women's work. Ann Game and Rosemary Pringle (1984) and Cynthia Cockburn (1985) have studied industries undergoing technological change and observed the ongoing redefinition of jobs as gendered. This redefinition that occurs even within so-called new industries has led these researchers to the conclusion that occupational segregation is not a remnant of the past that is gradually being eliminated, but is a structural feature of present day society resulting from the differential power relation between men and women. Gender relations can be seen to be operating in



selection and job requirements (Webb, 1987), in definitions of skill (Coyle, 1982; Phillips & Taylor, 1986), in entry into Youth Training Schemes (Cockburn, 1987); and in the everyday interactions of men and women at work (Cockburn, 1985).

From this perspective women's occupational choice is seen as largely a function of men's occupational choice and their desire to maintain a separate sphere and to do jobs that women don't do. In this context it is interesting to note that the perceived desirability of male-dominated occupations decreases for males but increases for females when sex-equalisation is anticipated (Heilman, 1979). Perceptions of men and women in gender-atypical occupations are similarly differentiated with women being seen as responding to a challenge, being somewhat daring and resourceful; whereas men undertaking female-dominated work are typically perceived as "failures, judged by the rigorous and unkindly standards of masculinity" (Cockburn, 1987). This asymmetry is described as

*Top heavy. Masculinity has some of the authority of the template, the matrix or the mould. Femininity has the compliance of the material that is formed to its image and outline. (Cockburn, 1987)*

It is men, it is argued, who benefit from sex segregation in employment. Their superior self-identity as a sex is sustained by separatism because it enables them to avoid direct comparison with women. If men did exactly the same work as women, some of them might be seen to do it less well (Cockburn, 1985). Game and Pringle (1984) even go as far to claim that "men's sense of self is affronted if they do women's work. They feel they have not only been reduced in status but almost physically degraded". Similarly Paul Willis, writing about masculinity and shopfloor culture, asserts

*Though it is difficult to obtain stature in work itself, both what work provides and the very sacrifice and strength required to do it provides*

*the materials for an elemental self-esteem. This self-esteem derives from the achievement of a purpose which not all - particularly women - are held capable of achieving. (Willis, 1979)*

Women, however, are not viewed as passive pawns in the process of occupational segregation. They too seek a complementarity between their gender identities and the work they do, and thus may make occupational choices that enhance their femininity. For example Norma Sharratt (1983) noted how young women entering secretarial work saw it in terms of *glamour*, as a job in which they could feel they had style, could meet eligible males, and conferred a positive sexual identity. Similarly, Lynne Chisholm views the occupational choices of young women as symbolic expressions of differentiated *cultures of femininity* (Chisholm, 1988).

Whilst gender relations theorists recognise the domestic constraints on women's employment, they argue that it is not that women enter female-dominated areas of employment because such work is inherently suited to part-time work. It is rather the case that when jobs are seen as "women's jobs" then they are typically organised as part-time, whereas male-dominated occupations such as caretaking, which might appear to be prime candidates for part-time employment, are organised, with the use of overtime and fill-in activities, as full-time jobs (Webb, 1988).

## **Structural theories**

The final set of theories to be considered are those that focus on external and societal influences on women's occupational choice. Firstly theorists such as Zellman, (1976) have drawn attention to the many barriers women face in employment. Similarly Riger and Galligan (1980) advocate *situation-centred* rather than *person-centred* explanations of women's occupational behaviour. An

awareness of social context, it is argued, is essential to our understanding of human behaviour (Handy, 1987). The social context in which women's occupational choices are formed and implemented is described in Chapter One.

Another strand of theorising focuses on the structure of society itself and seeks to explain women's occupational choices at this macro level (Rosenfeld, 1979). The first of these theories to be discussed is that of the *dual labour market* (Doeringer & Piore, 1971). It is proposed that the labour market consists of *primary* and *secondary* markets. The former is characterised by high wages, good working conditions, job security and promotion prospects, whereas the latter tends to have low wages and fringe benefits, poor working conditions and high labour turnover. Because women have or are thought to have intermittent employment they are seen as prime candidates for jobs in the secondary market, but are thought to be unsuited to primary market jobs and are therefore discriminated against should they try to enter such jobs. A similar and related theory is that of the *reserve army of labour* (e.g. Beechy, 1978; Bland *et al.*, 1978). This theory suggests that capitalism needs the work of women within the home to bear and socialise children, but at the same time it also needs a flexible labour supply which can be easily drawn into the labour force in times of labour shortage and easily expelled when the labour is no longer needed. The ideology that women are primarily wives and mothers rather than "workers", makes their occupational behaviour easily manipulated, it is argued. The reserve army of labour theory has been criticised on the grounds that it cannot account for sex segregation - women do not usually lose their jobs to men during times of contraction (Milkman, 1976). It has also been criticised for being "sex-blind" and for failing to discuss the part played by men in maintaining and reproducing occupational segregation (Hartmann, 1976). Finally it should be pointed out that whilst such theories may account for some of the historical change in women's employment, they are limited in what they can tell us about the occupational choices of individual women.

The conclusions that can be drawn from this review of the literature of women's occupational choice broadly parallel the conclusions to the preceding chapter on general theories of occupational choice. The vast majority of the theories outline above have something to contribute to the understanding of women's occupational choice, although several are in need of some modification. Again there tends to be a fair degree of unnecessary polarisation between individual/psychological approaches and social/structural perspectives. And again there is much room for synthesis, based around the major theories presented above.

## CHAPTER FOUR

# Literature Review III : Women in Male-dominated Occupations - Antecedents and Experiences

In this chapter a review of research on women working in or aspiring to male-dominated occupations will be presented. The major part of this review will focus on antecedents, that is the background, personality, motivational, attitudinal, domestic and social variables that influence women's decision to enter male-dominated fields of employment. In the final section the experiences of women in male-dominated occupations are considered.

Before embarking on the review, it is necessary to define the term *male-dominated*. A male-dominated occupation is one in which the majority of workers are male. There is little agreement, however, about how large this majority must be. Researchers have used cutoff points as low as 50 per cent and as high as eighty per cent, although two-thirds and 70 per cent are the most commonly used points above which an occupation is designated male-dominated (Hayes, 1986).

A large amount of research has been carried out on antecedent factors and on

the experiences of women in non-manual male-dominated occupations. The main occupational areas in which this research has focused are : management (e.g. Larwood & Wood, 1977; Marshall, 1984; Cooper & Davidson, 1984; Powell, 1988); highly successful business executives (e.g. Hennig & Jardim, 1977; Miles, 1985; Hertz, 1986); computing / information technology (e.g. Simons, 1981; Deakin, 1984; Lloyd & Newell, 1985; Davidson & Cooper, 1987); science (e.g. Cole, 1979; Martin & Irvine, 1982; Kahle, 1985; Homans, 1986); engineering (e.g. Bradshaw & Laidlaw, 1979; Dutton, 1983; Swords-Isherwood, 1985; Newton, 1987); law (e.g. Podmore & Spencer, 1982; Spencer & Podmore, 1986b); and medicine (e.g. Leeson & Gray, 1978; Young, 1981; Lorber, 1985; Elston, 1987). Other areas that have received some research attention include academia (McAuley, 1986), civil service (Walters, 1986), dentistry (Seward, 1976; Boyle, 1986), entrepreneurship (Wajcman, 1983; Goffee & Scase, 1985) finance (Ashburner, 1988), the police (Jones, 1986), and politics (Constantini & Craik, 1972).

Research on women in manual male-dominated occupations is a more recent phenomenon. In the late 1970's a number of books of personal histories of women in male-dominated occupations, including some women in manual male-dominated jobs were published (Wetherby, 1977; Coote, 1979; Careers Research & Advisory Centre, 1981). However, it was not until the 1980's however that researchers began to look specifically at women in manual male-dominated work, including craftworkers (O'Farrell & Harlan, 1982), engineering technicians (Newton, 1983), coalminers (Hammond & Mahoney, 1983), trade apprentices (Simpson, 1982), steelworkers (Deaux & Ullman, 1983), lorry drivers (Lembright *et al.*, 1982) and carpenters (Latack *et al.*, 1987).

This research has typically focused on experiences at work, however one major study carried out by Mary Walshok (1981) has investigated both the antecedents and experiences of women in male-dominated occupations. Walshok interviewed 87 women in a variety of manual male-dominated occupations. A group of 30

women in manual female-dominated occupations was included for the purpose of comparison. Walshok emphasises the diversity of women in manual male-dominated occupations, and also the multicausation of their entry into this type of occupation.

*Pioneering blue-collar women cannot be reduced to a single prototype. They emerge from diverse contexts, arrive at their jobs motivated by a variety of concerns and needs, make their choices at different stages in the life cycle, and define the place of work in their lives quite differently... Their pioneering spirit and tenacity can be understood only through an examination of how family roots, personal history, unforeseen crises, and lucky and unlucky accidents and opportunities contribute to the development of a secure adult identity, particularly one rooted in a strong commitment to paid employment. (Walshok, 1981).*

Walshok did note, however, that the women often had certain *pattern breaking* experiences during childhood, including independence building experiences within the family; strong mothers and positive female role models; and access to traditionally male occupational knowledge and skills. In adulthood their entry into male-dominated occupations was often presaged by a crisis such as parental illness or death, unwanted pregnancy, divorce or the discovery of alternate lifestyles rooted in lesbianism or feminism. Another common theme was that of financial necessity, since many of the women were single parents, divorced or widowed, or married to men in low paid or seasonal work. Walshok further noted that :

*For all the women we interviewed, the world is a problematic place in which to live and a place in which they feel they must master themselves... They have been forced to take independent action, and one of the steps in the complicated process of making a place for themselves has been to take a chance on nontraditional blue-collar jobs. (Walshok, 1981)*

Finally Walshok made the interesting observation that the women in her sample

of workers in manual male-dominated jobs tended to be highly educated, with more than half of the women having had some college education.

Whilst the work cited above provides some interesting initial insights into women in manual male-dominated occupations, the present state of knowledge about such women is somewhat limited and uncertain. This is partly because relatively few investigations have been carried out, and partly because samples have, of necessity, tended to be opportunistic rather than systematic (Deaux & Ullman, 1983).

## **Antecedents of women's entry into male-dominated occupations**

What follows next is a review of the social and psychological antecedents of women's choice of or entry into male-dominated occupations. This review covers the period 1970 to the present and excludes research on the occupational choices of children and adolescents. The research reviewed includes research on three different types of subject : women working in male-dominated occupations; women whose occupational preference is for a male-dominated occupation; and women who are studying traditionally male courses in higher or further education. These women will be referred to as *Pioneers*. Women working in or aspiring to female-dominated occupations, or following traditionally female further/higher education courses are the comparison group and are termed *Traditionals*. These terms were first introduced by Alice Rossi (Rossi, 1965), and since their introduction a vast amount of research has been undertaken with the aim of ascertaining the factors or characteristics that differentiate Pioneers from Traditionals.

There are, however, several drawbacks and limitations in the research reviewed below. Firstly there is the problem of the overuse of students as subjects.



Over half of the research located was on college women. Such research rests on the assumptions that students invariably implement and realise their occupational preferences, or that the course or major studied is strongly related to the occupation entered. Neither of these propositions is necessarily true. Indeed there is evidence that the sex-type of women's occupational preferences varies over time and that the connection between the sex-type of occupational preferences and the sex-type of occupations entered is weak (Jacobs, 1987). Secondly of the research that looked at employed women rather than students, women in the professions, such as lawyers, doctors and managers, are over-represented. Very little research has compared Pioneers and Traditionals in manual occupations, O'Farrell & Harlan (1982) and Newton (1983) being among the notable exceptions. Indeed, this elitist overconcentration on women in professional and management jobs permeates the whole field of women and work (Colwill & Vinnicombe, 1987). Thirdly over 90 per cent of the research in this review was carried out in the United States, and it is questionable whether such research findings are equally applicable in the British context. Fourthly the review is, of necessity, confined to published material. Current publishing practices favour the publication of significant results (that is research which finds differences rather than similarities) (Spender, 1981), therefore the present review probably underestimates the extent of similarity between Pioneers and Traditionals. It should also be noted that researchers typically conceptualise Pioneers as a special breed of women, the product of enriching experiences (Almquist & Angrist, 1975; Sedney & Turner, 1975), which means that differences constitute positive confirming evidence to be emphasised, whereas similarities do not fit in to the model and generally receive little discussion (Clement, S., 1986b). Finally there are methodological problems in some of the studies such as the lack of agreement over the cutoff point above which an occupation is designated male-dominated; the comparison of Pioneers and Traditionals in occupations of very different levels e.g. managers versus clerical workers (Mouillet, 1981), lawyers versus legal secretaries (Williams & McCullers, 1983); and poor return rates, e.g. 41 per cent (Wolkon, 1972), 45 per cent

(Crawford, 1978).

### Background variables

Firstly research into the background characteristics of Pioneers and Traditionals will be considered. One of the background factors most commonly studied is socioeconomic status or social class. The findings relating to the social class origins of Pioneers and Traditionals are presented in Table 4.1. The studies in the *Similarity* column found no significant differences between Pioneers and Traditionals with regard to their socioeconomic background. The studies in the *Difference (P)* column found that Pioneers came from families with a higher socioeconomic status than Traditionals. The studies in the *Difference (T)* column found that Traditionals had higher socioeconomic origins. The studies finding similarity outnumber those finding difference.

Table 4.1 Socioeconomic status of family of origin

<i>Similarity</i>	<i>Difference (P)</i>	<i>Difference (T)</i>
Nagely (1971)	Standley & Soule (1974)	Carney & Morgan (1981)
Tangri (1972)	Trigg & Perlman (1976)	Lyson (1984)
Klemmack & Edwards (1973)	Bielby (1978) (by major)	
Morrison & Sebald (1974)	Wertheim <i>et al.</i> (1978)	
Bielby (1978) (by occupation)	Jordan (1979)	
Crawford (1978)	Heins <i>et al.</i> (1982)	
O'Donnell & Andersen (1978)	Williams & McCullers (1983)	
Willis (1978)		
Peng & Jaffe (1979)		
Greenfeld <i>et al.</i> (1980)		
Lyson (1980)		
Sauter <i>et al.</i> (1980)		
Galejs & King (1983)		

For the next variable to be considered, father's educational level, the number of studies finding similarity also outnumbers those finding differences (see Table 4.2). However when differences are found it is always the fathers of Pioneers who are the more educated. The results follow a similar pattern for mother's educational level, shown in Table 4.3.

Table 4.2 Father's educational level

<i>Similarity</i>	<i>Difference (P)</i>
Tangri (1972)	Nagely (1971)
Klemmack & Edwards (1973)	Standley & Soule (1974)
Morrison & Sebald (1974)	Trigg & Perlman (1976)
Bielby (1978) (by major)	Greenfield (1978)
Bielby (1978) (by occupation)	Jordan (1979)
O'Donnell & Andersen (1978)	Heins <i>et al.</i> (1982)
Wertheim <i>et al.</i> (1978)	Wilson <i>et al.</i> (1982)
Peng & Jaffe (1979)	Williams & McCullers (1983)
Greenfeld <i>et al.</i> (1980)	
Lyson (1980)	
Moore & Rickel (1980)	
Zuckerman (1980)	
Carney & Morgan (1981)	
Burlew (1982) (by major)	
Burlew (1982) (by preference)	
Galejs & King (1983)	
Lyson (1984)	

Table 4.3 Mother's educational level

<i>Similarity</i>	<i>Difference (P)</i>
Nagely (1971)	Almquist (1974)
Tangri (1972)	Levine (1975)
Klemmack & Edwards (1973)	Trigg & Perlman (1976)
Morrison & Sebald (1974)	O'Donnell & Andersen (1978)
Bielby (1978) (by major)	Wertheim <i>et al.</i> (1978)
Bielby (1978) (by occupation)	Jordan (1979)
Peng & Jaffe (1979)	Lyson (1980)
Greenfeld <i>et al.</i> (1980)	Burlew (1982) (by major)
Moore & Rickel (1980)	Heins <i>et al.</i> (1982)
Zuckerman (1980)	Wilson <i>et al.</i> (1982)
Carney & Morgan (1981)	Williams & McCullers (1983)
Burlew (1982) (by preference)	
Galejs & King (1983)	
Lyson (1984)	

One background factor often thought to be related to women's occupational choice is maternal employment. Although a few studies find evidence for such a relationship, a very different picture emerges when all relevant studies are

examined. The research on maternal employment is presented in three separate tables. Table 4.4 includes studies that looked at whether mothers were employed during the childhood of Pioneers and Traditionals. This factor apparently rarely differentiates between the two groups. Table 4.5 shows studies that looked at current maternal employment. Five studies found that Pioneers were more likely to have mothers in paid employment, but twice as many did not find this. Table 4.6 includes studies on maternal employment in male-dominated occupations. The majority of studies found that Pioneers were no more likely than Traditionals to have mothers who are Pioneers.

Table 4.4 Maternal employment during subject's childhood

<i>Similarity</i>	<i>Difference (P)</i>
Tangri (1972)	Almquist (1974)
Klemmack & Edwards (1973)	Lyson (1984)
Bielby (1978) (by major)	
Bielby (1978) (by occupation)	
O'Donnell & Andersen (1978)	
Jordan (1979)	
Greenfeld <i>et al.</i> (1980)	
Haber (1980)	
Heins <i>et al.</i> (1980)	
Wilson <i>et al.</i> (1982)	
Williams & McCullers (1983)	

Table 4.5 Current maternal employment

<i>Similarity</i>	<i>Difference (P)</i>
Nagely (1971)	Tangri (1972)
Mednick & Puryear (1975)	Almquist (1974)
Valentine <i>et al.</i> (1975)	Crawford (1978)
Trigg & Perlman (1976)	Lemkau (1978)
Lyson (1980)	Foster & Kolinko (1979)
Sauter <i>et al.</i> (1980)	
Zuckerman (1980)	
Burlew (1982) (by major)	
Burlew (1982) (by preference)	
Galejs & King (1983)	

Table 4.6 Maternal employment in a male-dominated occupation

<i>Similarity</i>	<i>Difference (P)</i>
Mednick & Puryear (1975)	Tangri (1972)
Peng & Jaffe (1979)	Burlew (1982) (by major)
Sauter <i>et al.</i> (1980)	
Zuckerman (1980)	
Burlew (1982) (by preference)	

The nature of the relationship between Pioneers and Traditionals and their parents has also come under scrutiny. In studies of Pioneers in managerial and entrepreneurial roles it is often claimed that such women report having particularly close and special relationships with their fathers (Woods, 1975; Hennig & Jardim, 1977; Miles, 1985). However studies which have compared Pioneers and Traditionals with regard to parental relationships invariably find that the two groups are very similar in, for example, the extent to which they are mother or father identified (Schaefer, 1977; Tenzer, 1977); the parent they see themselves as most like (Tangri, 1972; Mednick, 1973; Greenfeld *et al.*, 1980); or closest to (Mednick, 1973); and in the quality of the relationship with each parent (Nagely, 1971). Where differences were found it was the Traditionals rather than the Pioneers who felt closer to their fathers and shared their father's values to a greater extent (Tangri, 1972).

Birth order is another background factor that has been investigated. See Table 4.7. Although several studies found that Pioneers were more likely to be firstborn children, more studies did not find this. A related variable is the size of family of origin, shown in Table 4.8. Although Auster and Auster (1981) included small family size in their profile of the typical Pioneer, there is actually very little evidence for this. The only suggestive evidence to support the view that Pioneers come from small families is Hennig & Jardim's (1977) study of highly successful business executives in which all the women in their sample

came from families with three or less children.

Table 4.7 Birth order

<i>Similarity</i>	<i>Difference (P's firstborn)</i>
Mednick (1973)	Greenfield (1978)
Morrison & Sebald (1974)	Lemkau (1978)
Schaefer (1977)	Galejs & King (1983)
Crawford (1978)	Williams & McCullers (1983)
Greenfeld <i>et al.</i> (1980)	
Sauter <i>et al.</i> (1980)	
Zuckerman (1980)	
Heins <i>et al.</i> (1982)	
Wilson <i>et al.</i> (1982)	

Table 4.8 Size of family of origin

<i>Similarity</i>	<i>Difference</i>
Klemmack & Edwards (1973)	
Mednick (1973)	
Morrison & Sebald (1974)	
Wilson <i>et al.</i> (1975)	
Zuckerman (1980)	
Galejs & King (1983)	
Heins <i>et al.</i> (1983)	

The sex of siblings may be an important factor in determining whether a woman enters a male- or a female-dominated occupation. However an early review of research on the relationship between sex of siblings and occupational preferences reported that this relationship appears to be inconsistent and contradictory (Gandy, 1975). Research carried out since then remains contradictory. For instance, Symons (1984) in a study of women managers found that several women remarked upon the effect of being brought up with brothers and being exposed to an essentially masculine socialisation experience. Miles (1985), in her study of highly successful business women, noted the

influence of having a younger brother. By contrast, however, Greenfeld *et al.* (1980) found that it was the Traditionals rather than the Pioneers who were more likely to have brothers. In a similar vein Bowen & Child (1976) reported that girls with brothers were less likely to show an interest in the physical sciences. In a study of adolescents' occupational aspirations the present author found that girls with sisters were more likely to have female-dominated occupational preferences than those without sisters, but the presence of brothers was unrelated to occupational preference (Clement, S., 1984). Thus the influence of sex of siblings is still unclear.

Two studies have investigated the religious background of Pioneers and Traditionals (Tangri, 1972; Zuckerman, 1980) but both studies found no differences between the two groups in terms of their religious affiliation. Another background variable that has been studied is hometown size. One study (Galejs & King, 1983) found that pioneers tended to come from larger hometowns, but four studies found no such difference (Greenfeld *et al.*, 1980; Lyson, 1980; Sauter *et al.*, 1980; Carney & Morgan, 1981).

It remains unclear whether Pioneers and Traditionals differ in their childhood activities. Williams and McCullers (1983) found that Traditionals were more likely to have owned dolls during their childhood. Similarly Standley & Soule (1974) found that Traditionals reported more traditionally female childhood activities and play, and perceived greater parental encouragement for such activities and play. By contrast, Tenzer (1977) found no such difference in gender-linked childhood activities.

Almquist (1974) reports that Pioneers were more likely to have had a part-time job or vacation employment during their teenage years. Burlew (1982) found that this was also the case, but only when Pioneers and Traditionals were classified by the gender-typicality of the major they were studying, and not when classified by their occupational preferences. In another study the extent of part-

time/vacation employment specifically related to the person's future occupation was found to be distinguish between Pioneers and Traditionals, Pioneers having had a greater amount of such experience, whereas the two groups did not differ in overall part-time/vacation employment.

Several researchers have reported that girls in single-sex schools are more likely to choose to study traditionally male subjects such as physics and chemistry (Sarah *et al.*, 1980; Shaw, 1980), and in at least one study the choice of physical science options at school has been strongly linked to entry into male-dominated occupations (Haworth *et al.*, 1986). From this it might be deduced that single-sex schooling would be an important factor in the backgrounds of Pioneers. However little research has been carried out to test this contention. Some support is forthcoming in a study of women intending to enter engineering in which these Pioneers were more likely than Traditionals to have been to a single-sex school (Weinreich-Haste & Newton, 1983). However this effect may be compounded by the fact that the Pioneers were also more likely to have been to grammar schools, and such schools have a tradition of single-sex education. Matters are further complicated by the contradictory finding of another study that engineering technicians were no more likely to have attended either single-sex or selective schools than their counterparts in female-dominated occupations (Haworth *et al.*, 1986).

The final background factor to be considered relates to the careers education and counselling received. In this area too, the research is somewhat contradictory. Sauter *et al.* (1980) report that whilst the Traditionals and Pioneers they studied did not differ in the amount of careers education and counselling received, nor in the gender of their careers counsellor, Traditionals did perceive themselves to have been more influenced by the careers education and counselling they had received. Newton (1983) found that Pioneers reported being more influenced by their school and teachers in general, but reported receiving more discouragement from careers teachers than Traditionals did.



Similarly Haworth *et al.* (1986) found that Pioneers were more likely to describe the careers education and advice they had received as unhelpful than were Traditionals. In addition Lyson (1980) found no difference in perceived influence of careers counsellors on occupational choice and Housser & Garvey (1983) found no difference in perceived support from the careers counsellor.

### Personality variables

Another major area of research, in addition to background factors, is the study of the personality characteristics of Pioneers. There are two personality characteristics which appear to differentiate between Pioneers and Traditionals with some consistency. These are the need for affiliation and autonomy/independence. Findings pertaining to need for affiliation are presented in Table 4.9. Here the majority of studies report findings that Traditionals have a greater need for affiliation than Pioneers. As far as autonomy/independence is concerned, Pioneers tend to have a greater need for autonomy or to be more independent than Traditionals. See Table 4.10.

Table 4.9 Need for affiliation

<i>Similarity</i>	<i>Difference (T)</i>
Constantini & Craik (1972)	Blank (1975)
Coplin & Williams (1978)	Trigg & Perlman (1976)
	Puig-Casauranc (1977)
	Brandt (1978)
	Colwill & Roos (1978)
	Willis (1978)

Table 4.10    Autonomy / independence

<i>Similarity</i>	<i>Difference (P)</i>
Constantini & Craik (1972)	Cartwright (1972)
Puig-Casauranc (1977)	Feulner (1974)
Galejs & King (1983)	Morgan (1974)
	Brandt (1978)
	Colwill & Roos (1978)
	Coplin & Williams (1978)
	Handley & Hickson (1978)
	Willis (1978)

The following personality traits are all relatively poor predictors of Pioneering. For example one study found Pioneers to be more aggressive than Traditionals (Willis, 1978), but four studies found no differences in aggression (Constantini & Craik, 1972; Brandt, 1978; Colwill & Roos, 1978; Coplin & Williams, 1978). Morgan (1974) found Pioneers to be more assertive than Traditionals but Wertheim *et al.* (1978) did not find this. Three studies have looked at deference (Constantini & Craik, 1972; Coplin & Williams, 1972; Morrison & Sebald, 1974), and none of them found any differences between Pioneers and Traditionals. Nine studies have investigated dominance and five (Constantini & Craik, 1972, Feulner, 1974; Morrison & Sebald, 1974; Puig-Casauranc, 1977; Willis, 1978) found Pioneers to be more dominant. However four studies found Pioneers and Traditionals to be equally dominant (Brandt, 1978; Colwill & Roos, 1978; Coplin & Williams, 1978; Galejs & King, 1983). Another personality characteristic that has received some research attention is the locus of control, that is the degree to which people view their behaviour and what happens to them, as directly under their personal control as opposed to being due to factors such as fate or external social control. Two studies found Pioneers to be more internal in their locus of control than Traditionals, but these are clearly outnumbered by studies that found no difference (see Table 4.11). It should also be noted that the locus of control may not be a unitary variable. Smith (1978) identified six locus of control factors : personal control;

control over political institutions; control over grades and exams; individual versus collective effort; feminine nature versus socialisation; and individual versus system blame, and found that Pioneers differed from Traditionals only on the last of these factors, tending to individual rather than system blame.

Table 4.11 Locus of control

<i>Similarity</i>	<i>Difference (P's more internal)</i>
Blank (1975)	Hawkins (1978)
Landesman (1977)	Waddell (1983)
Schaefer (1977)	
Wertheim <i>et al.</i> (1978)	
Capka (1979)	
Foster & Kolinko (1979)	

The next characteristic to be considered is machiavellianism (cunningness, a manipulative personality). The only researchers to look at this trait, Wertheim *et al.* (1978) and Capka (1979), found that Pioneers and Traditionals did not differ. Four studies (Morrison & Sebald, 1974; Blank, 1975; Puig-Casauranc, 1977; Willis, 1978) found Traditionals to be more nurturant than Pioneers, but an equal number of studies found similarity (Constantini & Craik, 1972; Brandt, 1978; Colwill & Roos, 1978; Coplin & Williams, 1978). Only one researcher, (Thomas, 1983), has investigated risk-taking and in this study no differences between Pioneers and Traditionals were found. Other researchers have looked at self-confidence and self-esteem. Two studies found that Pioneers had greater self-confidence than Traditionals (Constantini & Craik, 1972; Coplin & Williams, 1978), although Foster and Kolinko (1979) found that Pioneers and Traditionals had similar levels of self-confidence. As far as self-esteem is concerned, Morrison & Sebald (1974) and Mouillet (1981) found that Pioneers had higher self-esteem, but Zuckerman (1980) found no difference between the two groups with regard to this variable. The next personality variable to be considered is succourance, that is the need or desire to help people in distress, to relieve and

comfort them. Two researchers found Traditionals to be more succourant than Pioneers (Blank, 1975; Willis, 1978), but three studies found no difference (Colwill & Roos, 1978; Constantini & Craik, 1978; Coplin & Williams, 1978).

The final personality variable considered, and one which has received a great deal of research attention, is sex-role self-concept. See Table 4.12.

Table 4.12 Sex-role self-concept

<i>Similarity</i>	<i>Difference (P's more masculine / androgynous or less feminine)</i>
Fowler (1977)	Slaughter (1976)
Garza (1978) (black subsample)	Landesman (1977)
Torness (1978)	Puig-Casauranc (1977)
Vice (1978)	Garza (1978) (white subsample)
Mednick (1981) (black subsample)	Capka (1979)
Betz & Hackett (1983)	Haber (1980)
	Mednick (1981) (white subsample)
	Mouillet (1981)
	Wolfe & Betz (1981)
	Clarey & Sanford (1982)
	Waddell (1983)
	Williams & McCullers (1983)
	Strange & Rea (1983)

The sex-role self-concept is essentially a global personality measure that encompasses several of the traits mentioned above, and individuals are classified or rated in terms of *masculinity* (alternatively termed *instrumentality*), *femininity* (or *expressivity*), or *androgyny* (high masculinity and femininity). The pertinent theoretical and methodological problems, discussed in Chapter Three, should be borne in mind when considering the research into the sex-role self-concept of Pioneers and Traditionals. It should also be noted that several studies found that whether or not a difference was found depended on whether scores on the masculinity scale or the femininity scale were being considered (Brandt, 1978; Kwalwasser, 1978; Lemkau, 1978; Wertheim *et al.*, 1978; Yanico *et al.* 1978), or

whether masculinity/femininity or androgyny are measured (Stockton *et al.* 1980), however there was no consistent pattern to this. Overall there is a trend for Pioneers to be more masculine, androgynous, or less feminine than Traditionals, although there exists a number of studies which found no differences between the two groups.

### Motivational variables

The next variables to be considered are the motivational variables : need for achievement and fear of success. More studies found Pioneers to have higher achievement needs than Traditionals than found no difference between the two groups. See Table 4.13. However these findings must be interpreted with some caution because at least one study has found that whether a difference is found depends on the type of achievement motivation measure used (Morrison & Sebald, 1974). It is also dependent upon which particular male- and female-dominated occupations are studied (Williams & McCullers, 1983). The opposite pattern is evident for fear of success where studies finding similarity outnumber those finding higher levels of fear of success in Traditionals. See Table 4.14.

Table 4.13 Need for achievement

<i>Similarity</i>	<i>Difference (P)</i>
Tangri (1972)	Constantini & Craik (1972)
Mednick & Puryear (1975)	Blank (1974)
Coplin & Williams (1978)	Feulner 1974)
Wertheim <i>et al.</i> (1978)	Martin (1975)
Foster & Kolinko (1979)	Trigg & Perlman (1976)
Stewart (1980)	Puig-Casauranc (1977)
Mednick (1981) (black subsample)	Brandt (1978)
	Colwill & Roos (1978)
	Willis (1978)
	Moore & Rickel (1980)
	Mednick (1981) (white subsample)
	Waddell (1983)

Table 4.14 Fear of success

<i>Similarity</i>	<i>Difference (T)</i>
Tangri (1972)	Horner & Walsh (1974)
Breedlove & Cicirelli (1974)	Anderson (1978)
Gearty & Milner (1975)	Mednick (1981) (white subsample)
Mednick & Puryear (1975)	Thomas (1983)
Greenfield (1978)	
Mednick (1981) (black subsample)	

### Attitudinal variables

Another area of research is that on the sex-role attitudes of Pioneers and Traditionals. See Table 4.15.

Table 4.15 Sex-role attitudes

<i>Similarity</i>	<i>Difference (P's more liberal)</i>
Valentine <i>et al.</i> (1975)	Crawford (1978)
Torness (1978)	Ory & Helfrich (1978)
Wertheim <i>et al.</i> (1978)	Harren <i>et al.</i> (1979)
Yonge & Regan (1979)	Orcutt & Walsh (1979)
Sauter <i>et al.</i> (1980)	Carney & Morgan (1981)
Burlew (1982) (by major)	Yanico (1981)
Foss & Slaney (1986)	Burlew (1982) (by preference)

Although an equal number of studies found Pioneers and Traditionals to be similar as found them to differ in their sex-role attitudes, where differences were found it was always the Pioneers who were the more liberal. However, it would be wrong to suggest that most Pioneers strongly identify themselves as feminists. For example, the engineering students interviewed by Weinreich-Haste and Newton (1983) did not see themselves as feminists and were sceptical of the wider social and political aims of the Women's Movement. Similarly the Pioneers in Tangri's study apparently did not hold any recognisable feminist ideology, and some of the Pioneers interviewed by Terry Wetherby (1977) were

quite anti-feminist. It should also be noted that whether or not differences between Pioneers and Traditionals are found can depend on whether employment-related or domestic-related sex-role attitudes are being considered (Gackebach, 1978), or on the exact sex-role items employed (Lyson & Brown, 1982).

The work values of Pioneers and Traditionals have also been investigated, although here research is somewhat patchy and there is little agreement over the exact work values considered. Some researchers have noted a substantial degree of similarity in the work values of Pioneers and Traditionals (O'Farrell & Harlan, 1982; Lyson, 1984). Nevertheless there is some evidence of differences on certain work values, most notably promotion, pay and helping others. Five studies found Pioneers to place a higher value on promotion opportunities than Traditionals (Bartol, 1976; Vice, 1978; Greenfield *et al.*, 1980; Carney & Rea, 1983; Galejs & King, 1983), whereas only one study (Weinreich-Haste & Newton, 1983) found that the two groups did not differ in this respect. With regard to pay, five studies found that Pioneers rate having a well-paid job as more important than did Traditionals (Almquist, 1974; Vice, 1978; Greenfield *et al.*, 1980; Wheeler, 1981; Carney & Rea, 1983), but two studies found the opposite to be true with Traditionals valuing high pay more than Pioneers (Wolkon, 1972; Weinreich-Haste & Newton, 1983). Mixed results were also found for the desire to help people. Three studies found that Traditionals placed a greater value on this factor (Almquist, 1974; Wheeler, 1981; Carney & Rea, 1983), but one study found no difference between the two groups (Greenfield *et al.*, 1980), and in another study it was the Pioneers rather than the Traditionals who showed the greatest desire to help others (Golding *et al.*, 1983).

### Domestic variables

Finally variables relating to the domestic (marital and childbearing/rearing) situation of Pioneers and Traditionals will be considered. There is a general consensus that Pioneers and Traditionals do not differ in their dating behaviour (Tangri, 1972; Klemmack & Edwards, 1973), nor in their heterosexuality (Blank, 1974; Colwill & Roos, 1978). It is also evident that the two groups are equally likely to envisage getting married (O'Donnell & Andersen, 1978; Sauter *et al.*, 1980; Zuckerman, 1980; Burlew, 1982; Carney & Rea, 1983). Two studies found evidence that Pioneers expect to marry at a later age (Klemmack & Edwards, 1973; Vice, 1978), but Zuckerman (1980) did not find this. When actual rather than anticipated marriage is considered three studies found no difference in marriage rates, but eight reported that Pioneers were less likely to be married than Traditionals (see Table 4.16). It should also be noted that studies of women in high-level professional and managerial jobs often report lack of or delayed marriage (Epstein, 1973; Hennig & Jardim, 1977; Lainson, 1985; Miles, 1985).

Table 4.16 Marriage rates

<i>Similarity</i>	<i>Difference (T)</i>
Trigg & Perlman (1976)	Astin & Myint (1971)
Greenfield <i>et al.</i> (1980)	Linn <i>et al.</i> (1971)
Wilson <i>et al.</i> (1982)	Bielby (1978)
	Card <i>et al.</i> (1980)
	Gigy (1980)
	Heins <i>et al.</i> (1982)
	O'Farrell & Harlan (1982)
	Betz (1984)

Two studies found that Pioneers were more likely to remain childless (Greenfield, 1978; Haber, 1980), but one study did not (Zuckerman, 1980). Pioneers also appear to want or have fewer children than Traditionals. See Table 4.17.



Table 4.17 Actual or anticipated number of children

<i>Similarity</i>	<i>Difference (P)</i>	<i>Difference (T)</i>
Wilson <i>et al.</i> (1982)	Bielby (1978)	Linn (1971) Klemmack & Edwards (1973) Vice (1978) Moore & Rickel (1980) Galejs & King (1983) Betz (1984)

The next domestic variable to be considered is the extent to which Pioneers and Traditionals envisage combining or combine paid employment and motherhood and the amount of time they plan to spend or spend out of the labour market. This variable is often referred to as *career salience*, a woman who has a high degree of career salience being one who envisages or actually spends a very short time out of the labour market due to childbearing and rearing and attaches a relatively greater importance to her worklife rather than her family life. Researchers have typically found Pioneers to be more career salient than Traditionals. However, in line with the majority of research reviewed here, a fair number of studies found no significant differences between the two groups. See Table 4.18.

Table 4.18 Career salience

<i>Similarity</i>	<i>Difference (P)</i>
Nagely (1971) Mednick & Puryear (1975) O'Donnell & Andersen (1978) Ory & Helfrich (1978) Orcutt & Walsh (1979) Wilson <i>et al.</i> (1982)	Almquist & Angrist (1971) Wolkon (1972) Vice (1978) Haber (1980) Mouillet (1981) Heins <i>et al.</i> (1982) Galejs & King (1983) Newton (1983) Betz (1984)

Overall it must be concluded that many similarities exist between Pioneers and Traditionals and that background, personality, motivation, attitude, value and domestic variables are relatively poor predictors of preference for or entry into male-dominated occupations. However it must be noted that where differences were found they were invariably in the same direction. This suggests that the variables above may play a role in women's choice of male-dominated occupations, but the nature and extent of this role has yet to be established. Something else that must be noted is the fact that there may be substantial differences between women in different types of male-dominated occupations such as doctors and lawyers (Steinberg, 1978) or doctors and clergywomen (Mandelbaum, 1981).

It is difficult to draw specific conclusions from the review presented above for two reasons. Firstly, the limitations of the research outlined at the beginning of this review must be taken into consideration and secondly because the listing of research findings in the manner above is not ideal. Complex statistical techniques such as meta-analysis would have been preferable and would have allowed greater confidence in the findings of the review. However this technique was precluded here because of the lack of uniformity in research techniques such as the differences in type of subject, in definitions of male-domination, and in the measures employed. These cautions notwithstanding, some general conclusions may be drawn.

It may be concluded that Pioneers and Traditions appear to be very similar in the following respects :

- Socioeconomic status of family of origin

- Father's and mother's educational level

- Maternal employment - either current or during childhood or in a male-dominated occupation

- Identification with or relationship with parents

- Birth order and family size

Size of hometown

Locus of control

Intention or desire to marry

Pioneers and Traditionals appear to differ in the following ways :

Pioneers are more autonomous / independent and have a greater need for achievement

Traditionals have a greater need for affiliation

Pioneers are more *androgynous* or *masculine* / less *feminine*

Pioneers place a greater value on pay and promotion

Pioneers are less likely to be married, they anticipate or have fewer children, and show more career salience

It is important to point out that the variables reviewed so far are generally *person-centred* rather than *situation-centred*, and an approach exclusively based on person-centred variables can encounter the problem of victim blaming (Riger & Galligan, 1980; Ryan 1981). In addition there is ample evidence that societal and social factors play a part in women's choice of and entry into male-dominated occupations. For example Synnova Aga (1984) interviewed Norwegian women in male-dominated jobs in industry and found that 38 per cent of them were closely related or acquainted with someone in the personnel department or the firm's management. In Hennig & Jardim's (1977) study of highly successful business women almost all of the women had got their first jobs through friends or family. The influence of other people is also evident in the personal histories of many of the Pioneers, for example see Wetherby (1977); Coote (1979); Careers Research and Advisory Centre (1981). Other evidence for this is provided by the finding that a high proportion (27 per cent) of the intending woman engineers in Weinreich-Haste and Newton's (1983) study had fathers working in engineering. Similarly 46 per cent of the women lorry drivers in Lembright *et al.*'s (1982) study came from family backgrounds that involved lorry driving, 50 per cent were taught to drive lorries by their husbands or boyfriends, and for many the prime motivation for taking up lorry

driving was to be able to be with boyfriends/husbands who were lorry drivers, the couples typically working as co-drivers.

The situation in which a woman finds herself can also be a prime motivation for going into a male-dominated occupation. For example the majority of the coalminers in Hammond and Mahoney's (1983) study were the sole wage-earners and single parents, and for them coalmining was an attractive alternative to welfare or low-paid waitressing jobs. Similarly 61 per cent of the women steelworkers interviewed by Deaux and Ullman (1983) were sole wage earners in their families. It is also apparent that social initiatives such as affirmative action programmes in the US (Schreiber, 1979; Walshok, 1981; O'Farrell & Harlan, 1982) and British initiatives such as the Engineering Industry Training Board's Girl Scholarship Scheme (Newton, 1983) and the *Insight* programme (Weinreich-Haste & Newton, 1983) may play a part in facilitating women's entry into male-dominated occupations.

Having reviewed the research on women's choice of and entry into male-dominated occupations, it is now necessary to look at women's experiences at work in such occupations.

## **Experiences in male-dominated occupations**

Research on women's experiences in male-dominated occupations is somewhat patchy. There is a particular lack of research comparing the experiences of women in male-dominated occupations to those in female-dominated occupations. Also, here again far more is known about the experiences of women in male-dominated professions (e.g. Patterson & Engleberg, 1978; Milwid, 1983; Spencer & Podmore, 1986a) than about those in manual male-dominated jobs. However it is possible to sketch a picture of the work

experiences of Pioneers.

Pioneers appear to be largely satisfied with their work (e.g. Deaux & Ullman, 1983), but it is unclear whether they are more or less satisfied than Traditionals. Schreiber (1979) found Pioneers showed greater work satisfaction than Traditionals; Greenfeld *et al.* (1980) found Pioneers and Traditionals did not differ with regard to whether they would choose the same job if they had their time again; and Lemkau & Pottick (1984) found Pioneers to be less satisfied with their jobs than Traditionals. The satisfactions of male-dominated employment typically include pay, challenge, autonomy, variety and a sense of achievement (Myers & Lee, 1978; Walshok, 1981; Deaux & Ullman, 1983; Stringer & Duncan, 1985).

Pioneers generally found their male coworkers quite accepting, except for one or two difficult individuals (Schreiber, 1979). The majority of the women coalminers interviewed by Hammond & Mahoney (1983) reported enjoying working with men and saw male-female camaraderie as a reward of their job. Very few of the lorry drivers in Lembright *et al.*'s (1982) research reported experiencing much discrimination or harassment, although this is probably because the majority worked alongside their husbands or boyfriends.

However a substantial minority of Pioneers report some hostility from male coworkers. For example 30 per cent of the craftworkers in O'Farrell and Harlan's (1982) study claimed that their male coworkers gave them a hard time and some felt excluded from critical on-the-job training. Similarly Schreiber (1979) found that pioneers experienced a lot of teasing and put-downs and were teased with swearing and dirty jokes. Most of this was largely confined to the early period of initiation, but derogatory comments about women's competence continued unabated. Other researchers have also noted a decline in problems with male-coworkers over time (Walshok, 1981; Gruber & Bjorn, 1982; Deaux & Ullman, 1983).

Judi Marshall (1984) in her study of women managers describes some of the problems that women encounter working in a male-dominated environment, problems which are echoed throughout the literature on women in male-dominated occupations outlined at the beginning of this chapter. These problems are presented here to illustrate the common themes running through the experiences of women in male-dominated occupations. Marshall reports that many women felt excluded from the informal networking that takes place in organisations - the so-called *locker room syndrome* (Richbell, 1976). Many also felt patronised, that they were not being taken seriously. This was coupled with the common experience of being underestimated and mistaken for secretaries or assistants. Other problems included being judged on double standards and feeling misunderstood. The final problem of women in male-dominated occupations is the pressure to excel and prove that one can do the job as well as any man.

Another problem for women in male-dominated occupations is that of sexual harassment. The nature and prevalence of sexual harassment were discussed in Chapter One. There is much debate as to whether sexual harassment is more or less prevalent in male- as opposed to female-dominated occupations. Till (1980), Gutek & Morasch (1982), Lafontaine and Tredeau (1986) and Haavio-Mannila (1988) report higher levels of sexual harassment in male-dominated occupations. However both Walshok (1981) and Deaux & Ullman (1983) report relatively low levels of sexual harassment among the women in manual male-dominated occupations they studied compared to levels in the female population at large. Interestingly Carothers & Krull (1984) report that sexual harassment in male-dominated occupations is qualitatively different from that in female-dominated jobs.

*Harassment of women in traditional jobs appears more often as hints and requests for dates which, when rejected, are followed by work retaliation. Harassment of women in male-dominated settings is*

*typically more overtly hostile at the outset. The motive for harassment in the traditional setting appears to be the exploitation of role and power differences, whereas in the nontraditional setting the motive seems to be a defense against what male workers take to be the implicit challenge to their gender power and work roles.*  
(Carothers & Krull, 1984)

A related but distinct issue is sexuality. Its influence largely ignored but it plays an important, yet paradoxical and hidden role in organisations (Hearn & Parkin, 1987; Gutek, 1985). Jeff Hearn and Wendy Parkin argue that sexuality is a pervasive feature of organisational life. They define sexuality as "the social expression of, and relations to bodily desires, real or imagined, by or for others or for oneself, together with the related bodily states and experiences ". They assert that sexuality is always political, that is it entails action and activity with power and is an important aspect of gender relations. Hearn and Parkin further point out the lack of research in this area. From a similar standpoint Barbara Gutek introduces the concept of *sexual nonharassment* which is more widespread than sexual harassment (Gutek & Dunwoody, 1987) and proposes that "sex permeates work" (Gutek, 1985). She found that sex is present in male-dominated occupations even when women were not present in the form of posters, jokes, sexual metaphors and obscene language, and asserts that "the more men the more sexualized the workplace " (Gutek & Dunwoody, 1987). Clearly, then, sex and sexuality must be included in any adequate account of women's experiences in male-dominated occupations.

The concluding section of this chapter covers three theoretical approaches to the experiences of women in male-dominated occupations : Kanter's theory of relative number; gender relations approaches; and radical feminist perspectives.

Rosabeth Moss Kanter (1977), following her investigation into men's and women's roles in a large American company, proposes that the position and

experiences of women can be explained in terms of three facets of organisations : *opportunity* (the potential for movement within the organisation hierarchy); *power* (the ability to "get things done", to mobilise resources); and *relative number* (the proportion of socially or culturally different people in a group). It is Kanter's analysis of relative number that is new and makes an important contribution to the understanding of women's experiences in male-dominated occupations. She asserts that groups which are *skewed* (i.e. groups mainly comprising of men with just a few women, or vice versa) produce certain themes and processes. For women in male-dominated jobs, Kanter believes it is their rarity rather than their gender which shapes their experiences. Kanter refers to such women as *tokens*. The rarity of tokens gives rise to three perceptual tendencies : *visibility*, *contrast* and *assimilation*.

Visibility means that tokens get attention and find themselves in the limelight, and as such both their mistakes and their successes are more likely to be noticed.

Contrast refers to the polarisation and exaggeration of differences between dominants and tokens. The presence of tokens makes dominants more aware of their commonalities which they reaffirm in the presence of token women. Thus the presence of a few women can underline rather than undermine male culture.

Assimilation involves the use of stereotypes about a person's social type. Thus women in male-dominated occupations are treated as if they resembled women on average or stereotypes of women. One consequence of assimilation is *status levelling* where status is misperceived up or down in line with the person's gender, such that women are wrongly identified as secretaries or assistants. Kanter's notion of assimilation is broadly similar to Gutek's (1985) concept of *sex-role spillover*, a term which denotes the carryover of gender-based expectancies into the workplace.



It should be pointed out that Kanter defines a skewed group as one with a ratio of at least 85 dominants to 15 tokens. Many male-dominated occupations will fall into this category, but some which are male-dominated in terms of the present research (that is those in which at least two thirds of the workers are male) do not meet the criteria of a skewed group. These occupations are what Kanter terms *tilted*, and she suggests that the minority in these situations are more able to affect the culture of the group as a whole.

Zimmer (1988) has criticised theories based on relative number on the grounds that it has not been subjected to rigorous testing, and that the research that does exist casts some doubt on the adequacy of the theory. Zimmer also asserts that theories of relative number, being gender-neutral, are of limited value in explaining the experiences of either men or women in a society where gender remains important.

As well as being gender-neutral, theories of relative number also fail to address the issue of inequalities of power. One approach which does tackle this and firmly places women's experiences within the framework of patriarchy is the *gender relations* theory (discussed in Chapter Three). Gender relations theorists assert that it is in men's interests to maintain and reproduce sex segregation at work. Thus they feel threatened by women doing so-called men's jobs and may employ various strategies to discourage them from doing such work or from being promoted above them.

The third pertinent theory to be discussed is one that is termed *radical feminist* theory (see Chapter Three). In this theory it is suggested that women have differing moralities, identities and patterns of behaviour, women's being rooted in interconnectedness and in caring and maintaining relationships, in contrast to men's which are thought to be uncaring, competitive and hierarchical. These tendencies are thought to be reflected in women's experiences in male-

dominated occupations. Women find themselves in a male culture which proves problematic and stressful. Women may feel that they have to decide whether to become assimilated into the existing male culture and become *honourary men*, or whether to take the more difficult path of forging a place for female culture.

This radical feminist approach to women's experiences in male-dominated occupations would suggest that women's relationships with other women at work would be primarily positive with strong bonds between women characterised by empathy and a lack of hierarchy. The whole area of women's relationships with other women at work is relatively under-researched (O'Leary, 1988), however some studies have found evidence of women in male-dominated occupations being very keen to help and support other women (Symons, 1984). But researchers taking a psychodynamic perspective have noted a deep ambivalence in women's workplace relationships (Orbach & Eichenbaum, 1987). Other researchers have described what they term the *queen bee syndrome* in which high-achieving women are particularly hostile and unhelpful to other women at work (Staines *et al.*, 1973).

To summarise and conclude this section, it appears that women in male-dominated occupations experience both satisfactions (from, for example, the challenging nature of their work, and from its status and pay) and dissatisfactions (from, for example, male coworker hostility and sexual harassment). Their experiences are complex but may be understood, to a greater or lesser extent, in terms of the concepts of sexuality, relative number, gender relations, and female and male *culture*.

## CHAPTER FIVE

# The Self-Efficacy Expectations and Occupational Preferences of Females and Males : A Preliminary Study

One of the more pertinent and promising theories of women's occupational choice described in Chapter Three was self-efficacy theory (Hackett & Betz, 1981). In brief Gail Hackett and Nancy Betz suggested that Bandura's (1977; 1982a; 1986) self-efficacy theory might be a useful conceptual framework in which to view women's occupational choice. They hypothesised that, largely as a result of socialisation experiences, women lack strong expectations of personal efficacy in relation to traditionally male occupations, and that this may contribute to women's continuing under-representation in male-dominated occupations and to the maintenance of occupational segregation. It was therefore decided that this theory might prove a useful starting point for an investigation into women's occupational choice and entry into male-dominated occupations.

At the time when the present research was embarked upon there existed two studies designed to test the empirical validity of Hackett and Betz' proposition. Betz and Hackett (1981) and Wheeler (1983). Both of these studies claimed to

support the theory. However both studies contained certain methodological deficiencies (Clement, S., 1987).

The main flaw in the work of Betz and Hackett (1981) lies in their measurement of self-efficacy. They take two separate measures of self-efficacy : self-efficacy level (whether or not the individual feels capable of doing the task or behaviour) and self-efficacy strength (the person's confidence in his or her capability). Betz and Hackett measured self-efficacy level by asking subjects whether or not they felt they could successfully carry out the job duties of various occupations. Those who reported they could do this were then asked to indicate, on a scale of one to ten, their degree of confidence in their ability to carry out the job duties; this constitutes the measure of self-efficacy strength. However, as Marzillier and Eastman (1984) correctly point out, this method of measuring self-efficacy makes little sense. If, for example, a subject reports that she could do the job of an accountant (level) and then rates her confidence in her ability to do that job (strength) as "one" (completely unsure), this is the equivalent of saying "Yes, I could do that job, but I am completely unsure whether I could do that job", which is clearly nonsensical. The obvious solution to this problem is to use a single-judgement format which uses zero to signify the "I could not do that" judgement. Bandura (1984), whilst continuing to claim the validity of the separate level and strength measurements, admits that in some situations "we use the single-judgement format with a scale ranging from 0 to 100". It is also interesting to note that in Betz' most recent work on self-efficacy (Betz & Hackett, 1983; Taylor & Betz, 1983) a single-judgement measure of self-efficacy is used. It should also be pointed out that Hackett now acknowledges that self-efficacy strength effectively subsumes level, and may therefore be a sufficient indicator of self-efficacy for most analyses of interest (Lent & Hackett, 1987).

Betz and Hackett also appear to have misconstrued the supposed effects of level and strength of self-efficacy. They report that the level of self-efficacy

expectations is postulated by Bandura (1977) to influence the kinds of behaviour attempted and avoided, while self-efficacy strength influences the persistence of behaviour. Because Betz and Hackett's work is concerned with occupational choice, they focus on self-efficacy level. However a careful reading of Bandura (1977) reveals that he does not make this strict distinction of level affecting choice of activities and strength affecting persistence.

Betz and Hackett's reliance on self-efficacy level is problematic since the relationship between self-efficacy level and the outcome variable, the range of occupations considered, is likely to be artificially inflated because of the human desire to be or to appear to be consistent (Festinger, 1957; Schlenker, 1980). For example, if one has said "No I could not do that job", one cannot then say "I have seriously considered doing that job" because these two statements are inconsistent. A person is less constrained in this respect when the single-judgement format is used. Another methodological weakness of the Betz and Hackett study is that they do not appear to have ascertained the reliability and validity of their self-efficacy measures.

The other empirical investigation of self-efficacy expectations and occupational preference (Wheeler, 1983) is also methodologically inadequate. The main problems in Wheeler's study lie in his wording of the self-efficacy measures. He uses two distinct measures : *perceived match of abilities* and *perceived ease of success*. Neither of these measures embodies the actual meaning of self-efficacy. On the first measure subjects are presented with a rating scale which ranges from "my abilities do not fit the requirements of this occupation" to "my abilities are well-matched to required abilities". This does not measure self-efficacy because if, for example, a person believed that her abilities far outstripped those required by the job, she would report high self-efficacy but low perceived match of abilities. Wheeler's second so-called self-efficacy measure has a scale ranging from "could easily succeed in this occupation" to "very hard to succeed in this occupation". This wording may have led subjects to make a judgement of how

hard it is for people in general to succeed in the occupation, rather than judging how hard it would be for they themselves to succeed, which is the meaning inherent in self-efficacy judgements.

Another weakness in Wheeler's work is his use of extremely broad occupational categories e.g. self-employed, sales, finance/banking. One subject may have been judging whether her abilities matched those required of a bank manager, while another may have been judging her abilities with regard to those required of a bank cashier. Wheeler, like Betz and Hackett, also fails to report the reliability and validity of his measures.

The inadequacies of these previous studies meant that there was no conclusive evidence for a self-efficacy theory of women's occupational preferences. The study described here was undertaken with the aim of providing such empirical evidence, and of testing the following tentative hypotheses derived from the existing research :

- H1 : Females will have lower self-efficacy expectations than males in relation to male-dominated occupations.
- H2 : Female's lower self-efficacy will deter them from considering entering such occupations

## **Method**

### **Subjects**

In total, 78 females and 43 males took part in the study. Of these, 53 were young men and women who had applied to study psychology at university and were undergoing the selection process. The remaining 68 subjects were university students following a variety of degree courses in all five faculties of

the college concerned (see Table 5.1). The numbers of subjects in each field of study were too small to allow this variable to be included in the analysis. It was, however, ascertained that there was no significant relationship between field of study and sex ( $\chi^2 = 3.73, p > 0.05$ ). The subjects ranged in age from 17 to 36 (mean = 20.1, s.d. = 3.5). All the subjects participated voluntarily. The students were paid for their participation and were given the option of anonymity.

Table 5.1 Sex by field of study  
(percentages in parentheses)

	<i>Females</i>	<i>Males</i>
Applicants		
Psychology	37 (47)	16 (37)
Students		
Science and mathematics	6 (8)	2 (5)
Social sciences	10 (13)	8 (18)
Humanities and performing arts	18 (23)	13 (30)
Education	6 (8)	2 (5)
Art and design	1 (1)	2 (5)
Total	78(100)	43(100)

### Procedure and Measures

Subjects first completed an ability test (the applicants were required to take it as part of the selection procedure). They then completed the Occupational Questionnaire. They were told simply that it was a questionnaire about their occupational preferences. It was stressed to the applicants that their participation in the research was independent of the selection process and that no one involved in making selection decisions would see their responses to the Occupational Questionnaire.

### **The Ability Test**

The ability test used was the AH2 (Heim *et al.*, 1974). It is a test of general reasoning that yields four scores - a verbal ability score, a numerical ability score, a perceptual ability score and an overall ability score. The purpose of using this test in this study was to ascertain whether or not sex differences in self-efficacy could be attributed to differences in measured ability.

### **The Occupational Questionnaire**

The *Occupational Questionnaire* was devised for the purposes of this study and is reproduced in appendix B. It includes job descriptions of 20 occupations. Each job description is followed by three questions relating to : the individual's efficacy expectations regarding the occupation; how much she or he likes the occupation; and the extent to which the person has considered entering the occupation.

The job descriptions were 90 to 110 words long and described the amount and type of training and studying required, and the job duties of the occupations. Two examples are given below.

*Town and country planner.* Graduates (in any subject) wishing to become town and country planners must take a two year full-time course and pass the exams set by the Royal Town Planning Institute. Planners are concerned with civic design, land use and transport systems. They devise, plan and conduct surveys on the structure, function and wishes and needs of communities. They draw up plans for urban, rural and regional development. Their work might include planning new road networks, analyzing information to predict likely levels of need for schools, leisure facilities etc. and dealing with planning applications from the public.



*Speech therapist.* Potential speech therapists who have a degree (in any subject) must take a 2-3 year full-time course which covers speech pathology and therapeutics, phonetics, linguistics, anatomy, psychology and neurology. The training also includes practical work in hospital and school clinics where students observe and assist with treatments. Speech therapists treat disorders of voice, speech and language. Most patients are children who stammer, have articulation problems or are excessively slow in learning to talk. Adult patients may have suffered brain damage or disease, or they may have had their larynx removed and need to be taught an alternative method of speech production.

Ten of the occupations in the questionnaire were male-dominated (i.e. one in which over two-thirds of the workers are male) and ten of them were female-dominated (with over two-thirds of the workers being female). The occupations were selected from those listed in Miller and Alston (1984) using the following criteria: the occupations must be either male- or female-dominated; they must require at least A-level standard education; the amount of education or training required must be such that each occupation can be matched to an "opposite sex" occupation. Occupations in which the number of women and men trainees or students is approximately equal, that is *transitional* occupations such as medicine and law, were avoided. The occupations were presented in randomised order.

The self-efficacy question was worded as follows :

*How confident are you that you could competently do the job of a ...? Please indicate your degree of confidence by circling one of the numbers between 0 (no confidence at all) and 10 (complete confidence).*

The word "competently" was used in preference to "successfully", the word used by previous researchers, because it is more precise and has fewer possible

alternative meanings.

The *liking* question was worded :

*Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a ... ? Please indicate this by circling one of the numbers between 0 (not at all) and 10 (very much).*

The third question asked :

*In the past few years have you ever thought about becoming a ... ? Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 (not at all) to 10 (very seriously).*

The test-retest reliability of the Occupational Questionnaire was ascertained prior to the present study. Twenty-seven female and male students completed the questionnaire twice, with an interval of one week between testings. The mean correlation between *self-efficacy* ratings on the first and second testings was  $r = 0.74$  ( $p < 0.001$ ), for *liking*  $r = 0.79$  ( $p < 0.001$ ), and for *consideration*  $r = 0.89$  ( $p < 0.001$ ). It was concluded that the reliability of the Occupational Questionnaire is satisfactory.

Some indication of the validity of the self-efficacy scale of the Occupational Questionnaire was obtained by comparing the subject's self-efficacy ratings summed over all the occupations to their scores on the General Self-Efficacy Scale (Sherer *et al.*, 1982; Sherer & Adams, 1983), because self-efficacy tends to generalize to other situations (Bandura, 1977). It was hypothesized that there would be a small positive correlation between occupational self-efficacy and general self-efficacy. Prior to the main study 28 students completed the Occupational Questionnaire and the General Self-Efficacy Scale. As predicted a moderate positive correlation was found ( $r = 0.42$ ,  $p < 0.05$ ), which indicates

that the self-efficacy scale of the Occupational Questionnaire has some validity.

## Analysis and Results<sup>1</sup>

The data were analyzed using SPSS-X (SPSS Inc., 1983). Firstly t-tests were performed to ascertain whether females and males differed in their self-efficacy, liking or consideration ratings. Secondly, stepwise multiple regression analyses were carried out for each occupation with consideration as the dependent variable and self-efficacy and liking as possible explanatory variables. Additionally, t-tests and Pearson correlations were calculated to examine the possible influence of measured ability and age.

Females' and males' self-efficacy ratings for the male-dominated and female-dominated occupations are shown in Table 5.2. For nine of the ten male-dominated occupations women rated themselves as significantly less self-efficacious than the men. Thus hypothesis H1 is confirmed. By contrast, men had significantly lower efficacy expectations than women on only three of the female-dominated occupations. Thus it appears that women lack self-efficacy in relation to male-dominated jobs to a much greater extent than men lack self-efficacy in relation to female-dominated jobs.

For the liking variable the pattern is reversed (see Table 5.3). Women liked most of the male-dominated occupations as much as the men did (in that significant differences were found for only three of the male-dominated occupations). The only male-dominated occupations the women liked significantly less were air traffic controller, electrical engineer, and town and country planner. By contrast, the men liked all ten of the female occupations significantly less than the women did.

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<sup>1</sup> A statistical appendix for the present study is provided in Appendix C

There are also several significant differences between the females and the males in the extent to which they had considered entering the male- and female-dominated occupations. These are shown in Table 5.4. Males had significantly lower consideration ratings than females for eight of the female-dominated occupations, whereas females had significantly lower ratings for only three of the male-dominated occupations. Thus it appears that males are more reluctant than females to consider sex-atypical occupations.

Table 5.2 Mean self-efficacy ratings

	<i>Females</i> (n=78)	<i>Males</i> (n=43)	<i>t</i>
<b>Male-dominated occupations</b>			
Chartered accountant	4.56	6.02	-2.71**
Insurance broker	5.53	6.65	-2.30*
Air traffic controller	3.90	5.40	-2.91**
Electrical engineer	2.44	3.49	-2.17*
Stockbroker	3.76	5.63	-3.61***
Software programmer	2.63	3.65	-2.00*
Advertising account executive	5.83	7.00	-2.40**
Town and country planner	4.92	6.67	-3.44***
Manager	6.33	6.93	-1.18
Surveyor	4.17	5.54	-2.79**
<b>Female-dominated occupations</b>			
Primary school teacher	6.80	6.42	0.80
Personnel manager	6.46	6.65	-0.39
State registered nurse	6.39	4.88	2.77**
Dietician	5.54	5.16	0.75
Home economist	5.31	5.26	0.10
Physiotherapist	6.03	5.19	1.62
Radiographer	5.71	5.02	1.23
Speech therapist	5.80	4.49	2.80**
Bilingual secretary	4.14	3.16	1.38
Occupational therapist	6.46	5.40	2.25*

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; one-tailed

Table 5.3 Mean liking ratings

	<i>Females</i> (n=78)	<i>Males</i> (n=43)	<i>t</i>
<b>Male-dominated occupations</b>			
Chartered accountant	2.45	2.21	0.48
Insurance broker	2.49	2.65	-0.36
Air traffic controller	2.62	3.95	-2.51**
Electrical engineer	1.97	3.09	-2.35*
Stockbroker	2.63	3.05	-0.80
Software programmer	2.08	2.74	-1.44
Advertising account executive	5.80	6.05	-0.45
Town and country planner	4.17	5.27	-1.98*
Manager	5.26	5.00	0.44
Surveyor	3.06	3.81	-1.55
<b>Female-dominated occupations</b>			
Primary school teacher	5.71	4.30	2.42**
Personnel manager	5.50	4.00	2.63**
State registered nurse	4.35	2.93	2.74**
Dietician	4.76	3.40	2.62**
Home economist	3.86	2.88	2.01*
Physiotherapist	5.74	4.26	3.07**
Radiographer	4.30	3.21	2.15*
Speech therapist	5.56	3.67	3.53***
Bilingual secretary	3.80	2.77	1.75*
Occupational therapist	5.39	4.14	2.73**

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; one-tailed

Table 5.4 Mean consideration ratings

	<i>Females</i> (n=78)	<i>Males</i> (n=43)	<i>t</i>
<b>Male-dominated occupations</b>			
Chartered accountant	1.12	0.86	0.63
Insurance broker	0.55	0.91	-1.16
Air traffic controller	0.30	1.05	-2.89**
Electrical engineer	0.56	0.61	-0.14
Stockbroker	0.77	0.95	-0.53
Software programmer	0.74	0.95	-0.56
Advertising account executive	2.86	2.77	0.15
Town and country planner	0.87	1.63	-1.88*
Manager	3.32	3.30	0.03
Surveyor	0.32	1.44	-4.29***
<b>Female-dominated occupations</b>			
Primary school teacher	4.19	1.44	4.29***
Personnel manager	3.33	2.00	2.17*
State Registered Nurse	3.13	1.12	3.45***
Dietician	1.30	0.56	1.76*
Home economist	0.68	0.23	1.64
Physiotherapist	2.56	0.81	3.68***
Radiographer	1.17	0.61	1.47
Speech therapist	2.21	0.81	2.95**
Bilingual secretary	1.67	0.49	2.44**
Occupational therapist	2.71	1.44	2.22*

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; one-tailed

Multiple regression analyses were employed to elucidate the relationship between self-efficacy, liking and consideration. Separate stepwise multiple regression analyses were carried out for males and females and for each occupation, with consideration as the dependent variable, and self-efficacy and liking entered as possible explanatory variables.

For males self-efficacy appears as a significant variable in the equation for only one of the 20 occupations (software programmer), whereas liking was a

significant predictor of consideration for 16 of the occupations. For female self-efficacy was a significant explanatory variable for five of the occupations (manager, primary school teacher, nurse, physiotherapist, and bilingual secretary), and liking was significant for 19 of the occupations. The regression analyses of the occupations for which self-efficacy was a significant predictor of consideration are shown in Table 5.5. These findings indicate that self-efficacy makes a negligible contribution to occupational consideration for males, but for females self-efficacy makes an independent contribution for a quarter of the occupations, most of which, contrary to expectations, are traditionally female. Therefore hypothesis H2, that female's lower self-efficacy for male-dominated occupations will deter them from considering entering such occupations, is rejected.

Turning to the other variables that may have influenced the findings, there were no significant sex differences in overall ability, verbal ability, numerical ability or perceptual ability. The relationship between self-efficacy and age was also examined. A score reflecting self-efficacy for male-dominated occupations compared with that for female-dominated occupations was calculated (the sum of self-efficacy ratings for male-dominated jobs minus the sum of self-efficacy ratings for female-dominated jobs). This score was not age-related in males, but in females there was a significant negative correlation with age ( $r = -0.38$ ,  $p < 0.001$ ), which indicates that older females have lower self-efficacy for male-dominated jobs and higher self-efficacy for female-dominated jobs than younger females.

Table 5.5 Regression analyses for the prediction of consideration of occupations

		<i>Significant predictors</i>	<i>Beta</i>	<i>T</i>	<i>R</i>	<i>R<sup>2</sup> adjusted</i>
<b>Males (n = 43)</b>						
Software programmer	Self-efficacy	0.61	4.98***	0.61***	0.36	
<b>Females (n = 78)</b>						
Manager	Liking	0.57	6.07***	0.75***	0.55	
	Self-efficacy	0.25	2.63*			
Primary school teacher	Liking	0.61	7.21***	0.78***	0.60	
	Self-efficacy	0.27	3.26**			
State Registered Nurse	Self-efficacy	0.41	4.25***	0.69***	0.46	
	Liking	0.38	3.95***			
Physiotherapist	Liking	0.44	3.70***	0.63***	0.38	
	Self-efficacy	0.24	2.02*			
Bilingual secretary	Self-efficacy	0.41	3.81***	0.66***	0.42	
	Liking	0.33	3.12**			

\* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

## Discussion and Conclusions

The study reported here provides clear evidence that women have lower self-efficacy expectations than men with regard to male-dominated occupations. However the significance of this is unclear. It is open to question whether women's lower self-efficacy is problematic for them, since there is no evidence that it deterred them from considering entering male-dominated occupations. The women in this study had considered seven of the male-dominated occupations as seriously as the men had (given that significant differences were found for only three of the male-dominated occupations), and regression analysis has shown that women's relative reluctance to consider the three remaining male-dominated occupations is not directly attributable to a lack of self-efficacy.

Traditionally, researchers have taken male behaviour as the norm and measured



women's behaviour against this. Within this *framework of female deficiency* (Spender, 1981), psychological sex differences are interpreted as evidence of female inadequacy. Thus sex differences in self-efficacy are interpreted as women's supposed misconception of their abilities and men's more accurate self-appraisal. But an alternative interpretation of this sex difference is that women have a realistic awareness of their limitations whereas men tend to overestimate their capabilities and have inaccurate self-perceptions. Indeed, Crandall (1969) found that males tend to overestimate their future successes relative to their ability level. To reiterate, whilst it is evident that the women in this study did show lower self-efficacy for male-dominated occupations compared with their male peers, there is no evidence that this is problematic, nor that it prevents women from considering entering male-dominated occupations.

The results of the present study suggest that Hackett and Betz' (1981) proposal that self-efficacy is a useful and major explanatory concept for women's underrepresentation in male-dominated occupations is untenable and must be rejected.

It is important, at this point, to review a number of studies which appeared after this study was conducted and which replicated or partially replicated Betz and Hackett's (1981) seminal study. Firstly, the question of whether women have lower self-efficacy expectations than men in relation to male-dominated occupations will be considered. One study, Bridges (1988), showed clear evidence of a sex difference in this regard. By contrast Lent *et al.* (1984, 1986) found no such sex differences. However it should be noted that these researchers used a pre-selected sample of males and females already considering science or engineering college courses or occupations, which may well account for the lack of sex differences. This, however, cannot explain the findings of Post-Kammer and Smith (1985) who report that females had lower efficacy expectations on only two of the ten male-dominated occupations they presented; nor their later finding (Post-Kammer & Smith, 1986) of lower efficacy

expectations in females on just three of the ten male-dominated occupations presented. The evidence for a predictive relationship between self-efficacy and the consideration of male-dominated occupations is somewhat stronger. Five studies found evidence of such a relationship (Post-Kammer & Smith, 1986; Lent *et al.*, 1987; Rotberg *et al.*, 1987; Nevill & Schlecker, 1988; Lapan *et al.*, 1989), with just one study failing to find this relationship (Post-Kammer & Smith, 1985).

However these findings must be interpreted with some caution because the majority of the studies suffer from methodological weaknesses. Firstly, Lent *et al.* (1984) used an unacceptably small sample size and the sample size in Lapan *et al.*'s (1989) study is very small considering the type of analysis undertaken. Secondly, two of the studies only investigated efficacy expectations with regard to the educational requirements of jobs (Post-Kammer & Smith, 1986; Lent *et al.*, 1987). Thirdly, two studies failed to analyze the results for males and females separately (Lent *et al.*, 1987; Rotberg *et al.*, 1987).

Given the mixed and contradictory findings of the present study and the studies discussed above; the limited number of studies that have been carried out; and methodological problems associated with several of these studies, it is difficult to draw any firm conclusions. The degree to which women exhibit lower self-efficacy with regard to male-dominated occupations and the nature of the relationship between self-efficacy and occupational choice remain in question. What is clear, however, is that self-efficacy expectations do not play a *major* role in occupational choice. Given that occupational choice is a complex psychological and social process (see Chapters Two and Three), it is perhaps not surprising that it cannot be explained purely in terms of one aspect of women's psychology. In fact, in her more recent work Gail Hackett (Lent & Hackett, 1987) acknowledges that self-efficacy is not a sufficient mechanism for explaining occupational behaviour, but is rather a concept that combines and interacts with other variables integral to Bandura's theory, such as incentives and

outcome expectations. Lent and Hackett (1987) also note that self-efficacy theory has been criticised for discounting environmental influences and fostering a "blame the victim mentality" (Myers, 1983), and now advocate expanding self-efficacy research to include a focus on environmental parameters. The probable complex interrelationship of self-efficacy and other psychological and social variables might well account for the mixed and contradictory findings reported above.

To conclude, it appears that self-efficacy is insufficient to explain women's occupational choice and entry into male-dominated occupations. However self-efficacy expectations may well have a place as part of a larger theory of women's occupational choice. It is the creation of such a larger theory that is the concern of the chapters that follow.

## CHAPTER SIX

# Introduction to the Main Study

In this chapter the rationale for the main study reported in this thesis will be presented. The content, design and methodology of the main study grew from and is a reflection of the research presented in the thesis up to this point, that is the literature reviews on occupational choice; women's occupational choice; and on the antecedents and experiences of women working in or aspiring to enter male-dominated occupations; and the preliminary study on the self-efficacy expectations of females and males.

Three main conclusions may be drawn from the review of non-gender-specific theories of occupational choice presented in Chapter Two. Firstly, it is evident that there is a significant degree of overlap between several of the theories and that some synthesis is warranted. Secondly, it is clear that there has been too much polarisation, with some theorists proposing purely psychological accounts of occupational choice, and others focusing solely on external factors. In truth, any adequate theory of occupational choice will encompass both psychological and social variables. Thirdly, the non-gender-specific theories proved to be somewhat limited in their ability to explain women's occupational choice.

The review of theories of women's occupational choice, presented in Chapter Three, indicated that these theories are typically divorced from theories of occupational choice in general and tend to be somewhat disparate and narrow, with no one single theory providing an adequate account of women's occupational choice. It was concluded that, whilst holding out many promising avenues of enquiry, such theories were in need of some integration with each other and with non-gender-specific theories of occupational choice. One attempt at such integration, Gottfredson's Circumscription / Compromise theory, lays some important foundations, but it has not yet reached a stage of development where it can be accepted in full.

Therefore the main aim of the present study was to produce data from which to create an adequate, integrated theory of women's occupational choice.

Any adequate theory of women's occupational choice must be able to account for women who enter male-dominated occupations (Chisholm, 1988). Therefore a particular focus of the present thesis is on women in such occupations. Chapter Four contained a review of research on the antecedents of women's choice of or entry into male-dominated occupations. Whilst a substantial amount of this research was contradictory and inconclusive, a number of hypotheses were formulated on the basis on this existing research (see below).

Research on women's experiences of working in male-dominated occupations was also reviewed in Chapter Four. Although the main study focuses on occupational choice, women's experiences at work are also examined as a related issue and an interesting aside.

As discussed in Chapter Five, self-efficacy theory did not prove particularly useful in explaining women's occupational choice, although it may have a role to play as part of a larger theory.

The quest to create a theory of women's occupational choice, rather than to test an existing theory, necessitated a flexible research design that encompassed both qualitative and quantitative methods (for further discussion see Chapter Seven). The research, then, centred around lengthy semi-structured interviews and the use of a limited number of questionnaires.

Next it is important to consider where the research focus should be when addressing the issues of women's occupational choice and occupational segregation. Occupational segregation exists at several interrelated levels : firstly there is the segregation of men into the workplace and women into the home; secondly there is vertical segregation where within one occupation men tend to hold the higher level positions and women the lower level ones; and thirdly, there is horizontal segregation where men and women are employed in different occupations. The present thesis is concerned solely with the third type of segregation - horizontal segregation. The research topic is further circumscribed by the fact that this thesis only addresses the issue of women's segregation and does not investigate the important and related question of men's preference for male-dominated occupations and reluctance to consider female-dominated occupations.

It was decided to study women employed in a wide range of male-dominated occupations, and to investigate the occupational choice process largely retrospectively.

There are, of course, problems inherent in retrospective analyses, such as inaccuracy of recall; rationalisation; and the difficulty of knowing whether present psychological characteristics predate entry into the male-dominated occupation and therefore predictive, or whether they are the result of occupational socialisation. Nevertheless it can be argued that retrospective accounts are possibly more cohesive and coherent than concurrent accounts, as it is often only in retrospect that one can see all the factors operating in a

particular situation. This is not to suggest that retrospective accounts are any more objective than other accounts, but that they yield different and important data. The retrospective approach is especially useful when studying a developmental process such as occupational choice, and it avoids the enormous practical problems inherent in longitudinal research. In addition, there are several advantages in studying adult workers. Firstly it allows one to look at actual implemented choices; secondly it permits the investigation of occupational choice and development in adulthood, an important and neglected area; and thirdly it allows one to look at the influence of domestic factors.

As noted in Chapter Four, there is a dearth of research on women in manual male-dominated occupations. It was therefore thought to be important to include a group of women in such occupations in the present study. Additionally inspection of the proportions of women in various occupations reveals that the male-domination of occupations is not static. Male-dominated occupations can be broadly divided into two types - those that are male-dominated and remain so even at entry level, and those, such as medicine and law, which are male-dominated overall but are not male-dominated at entry level. These are termed *Transitional* occupations. Therefore three types of male-dominated occupation are considered in the present study : manual male-dominated occupations; transitional occupations (which all happen to be non-manual) and non-manual male-dominated occupations.

In addition to women in the three types of male-dominated occupations outlined above, it was also felt to be desirable to include a control group of women in female-dominated occupations. Ideally women in both manual and non-manual female-dominated groups would have been used as controls, but since qualitative methods necessitate a limitation on the total number of subjects and since each group needs to be a reasonable size, it was only possible to have a total of four groups. Consequently it was only feasible to have one control group. Because two of the male-dominated groups were non-manual, it was decided that the

control group should be non-manual as well. In an ideal situation it would have been interesting to have included men in male- and female-dominated occupations as another control group, but this was not possible due to the constraints on the number of groups studied.

In the main study a number of hypotheses are tested. On the basis of the literature review presented in Chapter Four, it was hypothesized that women in male-dominated occupations would be very similar to those in female-dominated occupations with regard to their family backgrounds. More specifically it was hypothesized that women in male-dominated and female-dominated occupations:

- H1 - would not differ in the social class of their fathers .
- H2 - would not differ in the social class of their mothers.
- H3 - would not differ in the extent to which their mothers were employed during the subject's childhood.
- H4 - would not differ in terms of whether their mother's were ever employed in a male-dominated occupation.
- H5 - would not differ in their identification with or relationship with their parents.
- H6 - would not differ in their birth order.
- H7 - would not differ in the size of their families of origin.
- H8 - would not differ in whether they were brought up in a village, a town or a City.

Turning now to psychological factors, it was hypothesised that women in male-dominated occupations :

- H9 - would show greater needs for autonomy / independence than women in female-dominated occupations.
- H10 - would have a greater need for achievement than women in female-dominated occupations.



H11 - would show lower levels of need for affiliation than women in female-dominated occupations.

H12 - would place more importance on the work values, pay and promotion, than women in female-dominated occupations.

Whilst it is true that existing evidence suggest that women in male- and female-dominated occupations differ in their sex-role self-concept this concept is not measured in the present study. This is because it was thought to be more parsimonious to concentrate on the narrow personality and motivational characteristics mentioned above rather than on global measures, and because of the many methodological and theoretical problems associated with the sex-role self-concept (see Chapter Three).

It was decided to measure the needs for autonomy, achievement and affiliation, and work values by questionnaire. A questionnaire on perceived job attributes was also included as a pertinent companion to the work values questionnaire. It would have been possible to measure other variables such as the locus of control and sex-role attitudes by questionnaire. However it was decided that, given that neither of these variables were hypothesised to differentiate between women in male- and female-dominated occupations, and given that there are methodological and theoretical problems associated with questionnaire measures of these variables (see Chapters Three and Four), it would be better to include pertinent questions within the interview schedule itself. These questions were "Do you think luck or chance has played a part in your career or the jobs you've done ?" and "Would you describe yourself as a feminist ?".

Turning now to hypotheses regarding the domestic situation of women in male- and female-dominated occupations, it was hypothesised that women in male-dominated occupations would :

H13 - be less likely to be married than women in female-dominated occupations

H14 - anticipate having or have fewer children than women in female-dominated occupations

H15 - anticipate or actually take less time out of employment for childbearing and rearing.

No hypotheses were proposed with regard to differences between women in the different types of male-dominated occupation because there is insufficient existing research on which to base such hypotheses.

Overall it was hoped that the main study would provide answers to some of the questions outlined at the beginning of this thesis; that it would allow for the creation of a model of women's occupational choice and entry into male-dominated occupations; and that this model may integrate and synthesise existing theories (see Chapters Two and Three).

## CHAPTER SEVEN

# Methodology and Method

### Methodology

The methodology employed in this study, whilst being rooted in psychology's traditional research paradigm, has also been influenced in important ways by the ideas of *Feminist* and *New Paradigm* research.

### Feminist Research

Since the early 'seventies there has been much debate about what constitutes a feminist approach to research. At the most simplistic level feminist research may be thought of as research that is *on, by* and *for* women. Although much research over the last two decades has focused exclusively on women and has provided important knowledge about women's situations and experiences, this women's studies approach, or the *women and...* syndrome (Stanley & Wise, 1983), in which women's experiences are added into existing theories, frameworks and constructs, is generally seen as inadequate (Callaway, 1981; Klein, 1983; Stanley & Wise, 1983; Wine, 1985; Brown, 1986). It is now

recognised that feminist research must not be confined to research on women. Since the central problem addressed by feminism is sexism, and men are importantly involved in this, men should also be the focus of our enquiry. It is necessary to "bring men back in" (Morgan, 1981).

Whilst there is general consensus that feminist research should not be restricted to research on women, there are marked differences of opinion about whether feminist research must be carried out *by* women. At one end of the spectrum are the views of Stanley and Wise (1983) who argue that men cannot do feminist research because they do not possess the prerequisite *feminist consciousness* which is rooted in the concrete, practical and everyday experiences of being, and of being treated as, a woman. Others, for example Kelly (1978), who defines feminist research as that which is undertaken for feminist reasons, would argue that both men and women are able to carry out feminist research. Harding (1987) has cogently pointed out some of the contradictions inherent in the view that only women can do feminist research. She argues that it is inappropriate for feminists to both criticise male researchers for ignoring women and gender, but also to insist that they are incapable of conducting research that satisfies feminist requirements. She also contends that since feminists often insist that *every* issue is a feminist issue, it is somewhat odd to adopt a policy which in effect recommends that only women practise social science at all.

There is unanimous agreement about the purpose of feminist research, that it is *for* women. Whether through action research (Mies, 1983) or by establishing the conditions of women's lives as a basis from which change can take place (Wilkinson, 1986), the ultimate goal of feminist research is social change and the attainment of equality for women. This explicit aim of feminist research influences both the questions that feminist research addresses and the interpretation of research findings. Feminist research "generates its problematics from the perspective of women's experiences" (Harding, 1987) and "assumes a perspective in which women's experiences, needs and ideas are valid in their

own right" (Klein, 1983). In the social sciences the facts seldom speak for themselves (Blau, 1981), therefore interpretation is necessary. Traditionally interpretation has been *androcentric*, that is the male is generally taken as the norm, the female as the deviation from the norm, and preconceived notions concerning masculine and feminine nature operate. In addition sex differences are emphasised; overlap and similarities are minimised; sex differences are assumed to favour males; and abilities in which males excel are assumed to be the important and essential ones (Eichler, 1980; Wine, 1985). By contrast feminist researchers aim to interpret findings from a *gynocentric* perspective (Wine, 1985).

Feminist researchers typically reject the notion of value-free research and often explicitly present and examine the role played by the researcher's own values, beliefs and assumptions. They point out that much of the research which passes as objective and value-free tends to reflect a strong commitment to the status quo, which is as potentially biased as any other orientation (Jayaratne, 1983; Griffin, 1986). It has also been argued that the importance of the personal is fundamental to feminism and should therefore be integral to feminist research (Stanley & Wise, 1979). This locating of oneself and one's values in the research process has been variously termed *reflexivity*, that is disciplined self-reflection (Wilkinson, 1987), *passionate scholarship* (Du Bois, 1983), *conscious subjectivity* (Klein, 1983), *critical subjectivity* (Marshall, 1986) and *conscious partiality* (Mies, 1983). It is important to note, however, that recognition of the role of values in no way negates the necessity for rigour and precision in research. Another key element of feminist research is the idea that the research situation is a social situation. It is recognised that the gender of the researcher and the researched can influence the research outcome (Sherif, 1979); that research participants may take the initiative in defining the research situation (Oakley, 1981a); and may attempt to *place* the researcher, that is to ascertain her personal orientation to the research topic, e.g. in research on motherhood, whether the researcher is married, whether she has children etc. (Finch, 1984).

This leads on to another important aspect of feminist research - the relationship between the researcher and the researched. Essentially feminists prescribe that this relationship should be as non-exploitative and non-hierarchical as possible. It should be the antithesis of what Reinharz has emotively termed the *rape model* of social research :

*The researchers take, hit and run. They intrude into the subject's privacy, disrupt their perceptions, utilise false pretences, manipulate the relationship, and give little or nothing in return. When the needs of the researcher are satisfied, they break off contact with the subject.*  
(Reinharz, 1979)

The final issue to be considered is whether there is a specifically feminist method. Many writers reject the notion of a distinctive feminist method of research (Kelly, 1978; Du Bois, 1983; Klein, 1983; Clegg, 1985; Wine, 1985; Harding, 1987), or as Clegg (1985) puts it "feminist concerns are nonnegotiable but their strategies are". However where one method is preferred it generally has subjective, experiential and qualitative elements. Taking an essentially radical feminist perspective (see Chapter Three) it is argued that feminist research should be *communal*, that is involving naturalistic observation, sensitivity to intrinsic structure and qualitative patterning of phenomena rather than *agentive*, that is involving separating, ordering and quantifying, manipulating and controlling. However at least two researchers (Jayaratne, 1983; Hunt, 1986) have successfully defended the use of quantitative methods in feminist research, arguing that such methods are not inherently exploitative and are useful in enabling us to document the extent and nature of women's oppression. It is therefore concluded that both qualitative and quantitative methods have a place in feminist research.

## New Paradigm Research

There is considerable overlap between feminist and new paradigm research, a fact which has been recognised and acknowledged by both feminist (Wilkinson, 1984; Lott, 1985) and new paradigm researchers (Reason & Rowan, 1981).

New paradigm research is one of several terms that may be used to describe the relatively recent movement within psychology that is characterised by : a critique of positivism; a belief that the personal experience of the researcher is integral to research; a concern about the treatment of research participants; and a recognition of the political nature of research. Such an approach might alternatively be labelled *humanistic* or *radical* psychology. A critique of positivism lies at the heart of new paradigm research. The central tenet of positivism is the view that the study of human behaviour should be scientific in the mode of the natural sciences. Such an approach leads to the use of a *mechanistic* model to explain human behaviour, in which people are assumed to be passive and inert, propelled into action only by some internal or external force. New paradigm researchers, by contrast, regard people as *agents*, that is they credit human beings with the ability to be the causes of their own behaviour. While positivists have a tendency to break human behaviour down into small, simplistic chunks, new paradigm researchers prefer to take a holistic view of human beings and human behaviour. Their basic argument is that positivism "uses science to dehumanise man [*sic*]" (Heather, 1976), and that new paradigm research, by contrast, is about "ways of going about research which do justice to the humanness of all those involved in the research endeavour" (Reason & Rowan, 1981).

The new paradigm's non-mechanistic, holistic perspective has typically led researchers of this persuasion to eschew quantitative methods in favour of qualitative techniques.

The personal experience of the researcher, new paradigm researchers argue, has a legitimate place within social science. For example, Maslow, whose work has been very influential in new paradigm research, stresses the importance of *experiential knowledge* as opposed to *spectator knowledge* (Maslow, 1966); Reason & Rowan (1981) speak of the need to be *objectively subjective*; and Bannister contends that :

*Personal experience is a rich and relevant source from which to derive, and in terms of which to argue, psychological issues. Personal experience is no more a subjective, chaotic, anecdotal nonsense in relation to science than it is in relation to life. Another key area is the new paradigm researcher's concern about the real and potential exploitation of research participants. They take a stance against research that involves deception. They also maintain that it is unacceptable to inflict any form of harm in the process of research and that debriefing will not undo any harm that has occurred.*

(Bannister, 1981)

As Reason & Rowan (1981) put it "Good research means never having to say you are sorry".

In addition to being non-exploitative, new paradigm researchers also assert that the relationship between the researcher and the researched should be non-hierarchical. In practical terms this has led several researchers to espouse collaborative, cooperative or participatory research (Elden, 1981; Heron, 1981a; Rowan & Reason, 1981), in which subjects contribute directly to hypothesis-making, to formulating the final conclusions and to all that goes on inbetween.

New paradigm researchers are also aware of the ideological and political nature of research and acknowledge that :

*Research may become another agent of authoritarian social control - knowledge and power are all on the side of the researchers and their political masters, and none is on the side of those who provide*



*the data and are subject to its subsequent application.* (Heron, 1981b)

Whilst the present study does not claim to be pure feminist or new paradigm research, the influence of both types of research is evident in several aspects of the study. Firstly, for example, the choice of research topic reflects the researcher's own personal interests and concerns. Secondly the primary method for recruiting subjects was via a request for interviewees placed in various publications, which may be contrasted to other potentially exploitative recruitment methods such as using a *captive population*, e.g. employees, who may not feel free to refuse to participate, or repeatedly calling at the homes of potential subjects (Lewis, 1986a) which arguably borders on harassment. By using an interview schedule that was not highly structured the subjects were able to bring up issues that they felt were important. The use of an extended interview which included questions on many areas of the subjects' lives enabled me to gain a picture of the whole person. The subjects determined the time and location of the interview, could choose whether or not the interview was tape recorded, and were told that they may switch the tape recorder off at any point during the interview. Additionally they were free to contact me after the interview if they so wished, and they were sent a summary of the main findings of the study. An explicit statement about myself and my orientation to the research is included in the research report. Finally, interpretations of the findings are made with an awareness of the political nature of such interpretations and with an acknowledgement that they will inevitably be coloured by the researchers' own values. The findings are interpreted in a way that is essentially non-sexist and pro-women.

## Qualitative Research

The present study involved the subjects participating in an extended individual interview and completing some questionnaires. The former was subjected to both quantitative and qualitative analyses and the latter was analyzed quantitatively. Hence the research design incorporates both quantitative and qualitative methods. Whilst an increasing number of psychologists are turning to qualitative methods, these methods still hold a marginal position within mainstream psychology. It is therefore necessary to outline the nature, uses and benefits of qualitative research.

Qualitative and quantitative research have often been presented as a dichotomy, as being mutually exclusive and opposed. However, I prefer to take the view, in line with other researchers (e.g. R & D Sub-Committee, 1979), that they are complementary, and that each is to be preferred for different purposes.

Fielding & Fielding (1986) have pointed out some of the specific instances when qualitative methods may be usefully used in conjunction with quantitative methods, for example, in validating survey data, in interpreting statistical relationships, in deciphering puzzling responses, and in offering case study illustrations.

Qualitative research also has its own particular uses and benefits. For example its flexibility allows one to move outside the preconceptions and definitions of the researcher to more fully understand how others construe their worlds (Jones, 1981). Qualitative methods have proved especially helpful and illuminating in situations where quantitative research has produced conflicting or confusing results; where the subject of inquiry is sensitive and questionnaires or standard interviews would yield only superficial responses; and where the research topic is inherently complex, complicated, or concerned with relationships and processes.

It is thus evident that "Qualitative research reaches the parts that other techniques don't" (Walker, 1985), and has something to contribute to the present study both in its own right and in complementing the quantitative analyses.

Whilst the analysis of qualitative data is more explicitly interpretive, creative and personal than quantitative analysis, this does not mean it should not be equally systematic and careful (Walker, 1985). It has been argued that properly conducted qualitative research, inevitably coloured to some extent by the subjectivity of the researcher, is nevertheless a perfectly valid form of information (R & D Sub-Committee, 1979).

## **Method**

### **The Interview**

The interview is a widely-used tool of social science research. The research interview has been defined as an interaction in which two or more people are brought into direct contact in order for at least one party to learn something from the other (Brenner *et al.*, 1985).

The interview has certain advantages over other methods of data collection. Perhaps the central value of the interview as a research procedure is that it allows both parties to explore the meaning of the questions and answers involved, with an implicit or explicit sharing or negotiation of understanding in the interview situation which is not so central, and often not present, in other research procedures (Brenner *et al.*, 1985). Any misunderstandings that arise can be checked immediately, which is not generally the case, when, for example,

questionnaires are being completed. Another important strength of the interview is that it allows research participants to explain their social worlds in their own terms rather than in those imposed rigidly and *a priori* by the researcher, and in a depth which addresses the rich context of those explanations and understandings (Jones, 1985).

Of course there are also drawbacks to the use of interviews. For example, interviewing is more costly in terms of time than some other techniques which typically means the use of very large samples is precluded.

Another disadvantage is the problem of *interviewer bias*. However it can be argued that it is impossible, whatever the method used, to find some *objective truth* that would be there if only the effects of interpersonal interaction could be removed. Jones (1985) has cogently argued that it is more useful to view bias not as something to be avoided at all costs, but rather as something that may be used creatively and self-consciously.

There are several different types of interview, but two important distinctions which underlie much of this variety are group versus individual interviews and the degree of structure in the interview.

Whilst group interviewing has its particular advantages, for example it is less time consuming per interviewee; group dynamics may throw light on the research topic; and ideas may be generated which would not have occurred to any one individual; it was decided that the individual interview would be more suitable for the purposes of the present study. This type of interview has the advantage of allowing the researcher to fully explore details of each subject's life and to gain a rounded picture of the individual. It is also the technique of choice for shy or inhibited subjects who would contribute little in a group interview situation. Subjects may also feel more able to discuss personal or sensitive matters in an individual rather than a group setting.

The degree of structure in an interview can be viewed as a continuum with highly structured, standardised interviews at one end, and non-directive, depth interviews at the other. The former are useful in contexts where a high degree of comparability across interviews is required, whilst the latter has the important advantages of allowing respondents to use their unique ways of defining the world; the researcher is not constrained by a fixed sequence of questions that may not be suitable for particular respondents; and it allows respondents to raise important issues not contained within the schedule (Silverman, 1985). It should be noted, however, that there is no such thing as a totally unstructured or non-directive interview because what someone will say to another person depends on what he or she assumes that other is "up to" and if interviewees have no clear idea of what the researchers' interests and intentions are, they are less likely to feel unconstrained than constrained by the need to put energy into guessing what these are (Jones, 1985).

In the present study a semi-structured interview schedule was used. It was flexible enough to allow interviewees to raise issues that were important to them; to be appropriate for subjects with a wide variety of backgrounds and experiences; and to facilitate rapport and relaxed conversation between the interviewer and the interviewee, yet it was structured enough to permit comparisons between subjects and groups of subjects.

The interview schedule was based on existing research and theory (reviewed in Chapters Two, Three and Four). It was designed to provide answers to the questions outlined at the beginning of this thesis and to test the hypotheses outlined in Chapter Six. It consists of 88 questions. In addition two cards were used. Firstly there was a card showing salary bands which was used in conjunction with the question asking how much the subject earned, in order to prevent possible embarrassment. The other card showed a visual analogue scale (a ladder) which was used to measure the subjects' job satisfaction. The

test-retest reliability of this measure was determined in piloting. Twenty women in a variety of occupations rated their job satisfaction twice with an interval of one week inbetween. A correlation of  $r = 0.93$  ( $p < 0.001$ ) was found, which was felt to be adequate. Next five pilot interviews were conducted which, in addition to providing the researcher with the opportunity to gain experience in the art of interviewing, also resulted in some minor changes to the interview schedule. The final version of the interview schedule is reproduced in Appendix D.

All of the interviews were conducted by the researcher. The place where the interviews were carried out was determined by the interviewee - most commonly the subjects chose to be interviewed in their own homes (62%), less often they chose their workplace (15%), the researcher's home (10%) or the researcher's room at college (8%), and very occasionally the interview took place in a public place such as a coffee bar (5%).

In the main the interviews took place in the evening (52%), but sometimes it was possible to do the interview during the working day (34%). The remaining interviews took place at the weekend (14%). The shortest interview lasted one hour and the longest took just over three hours, with the average interview lasting about two hours.

At the beginning of each interview subjects were assured that anything they brought to the interview would be treated in strict confidence and that pseudonyms or code numbers would be used in any written material resulting from the research to provide anonymity. Each subject was asked if she would mind if the interview was tape recorded. The majority (97% of those interviewed) did not mind. Only two women declined to be tape recorded, but a further three interviews were not tape recorded because the background noise level in the place where the interview took place was too high. In these instances notes of the subjects' responses were made during the interview, which

were written up when the interview was over. Additionally, after each interview, notes were written about any pertinent aspects of the interview context such as whether the interview seemed to have gone well, whether the interviewee appeared relaxed or nervous, and any interesting things that were said before the tape recorder was switched on - in short, anything which it may be important to take into account when returning to the data in the analysis phase of the research.

Like Oakley (1981a) I decided it was not good interview or feminist practice to refuse to answer interviewees questions, so I endeavoured to give honest answers to all their questions. Subjects often wanted to know why I had chosen to research this particular topic, whether I had worked in a male-dominated occupation, what were the aims of and my orientation to the research, what were my opinions on various issues relating to women and work, and what had I found so far. In order to minimise bias and to enable the women to feel free to express opinions which differed from my own I generally delayed answering the latter two types of question until the interview was over. Throughout the interview subjects were encouraged to expand and elaborate on their responses.

In the vast majority of the interviews a high level of rapport was attained. In fact, in common with Finch (1984), I was surprised at the openness and ease with which the subjects spoke, even about quite personal matters. This may have been due to the particular recruitment methods employed in the present study (see below), but it has also been argued that this easy rapport occurs because it is a woman interviewing another woman (Oakley, 1981a). The interviewees appeared to value the opportunity to talk about themselves. Indeed one woman wrote to me after the interview to tell me that she had found the interview very illuminating and as a consequence had re-evaluated her work situation and decided to make a career move. At the end of the interview I offered to send the subjects a summary of the research findings, which they all wished to receive.

## Questionnaires

Three questionnaires were used in the present study. They were included because it was felt that they would complement the *softer* data from the interviews, and because certain characteristics, e.g. need for achievement, work values, are best measured in this way.

As more fully discussed in Chapter Six and below, questionnaires were used to measure the subject's work values, the way they perceived their jobs, and their achievement, dominance, autonomy and affiliative needs.

Three criteria were used when deciding on which particular questionnaires to use. Firstly they had to be relatively short because subjects had already given a large amount of their time for the interview; secondly they had to be designed for and easily understood by people with varying levels of education and intelligence; and thirdly they should be suitable for women as well as men.

### Work Values Questionnaire

Several existing questionnaires purporting to find out which characteristics of a job people value and desire, i.e. their work values, were examined. However none proved suitable for the present study. Some, e.g. the Job Outcome Questionnaire (Manhardt, 1972) and the Work Aspect Preference Scale (Pryor, 1983), provide a long list of work values, but do not include those values that might be particularly important to women such as having a job that fits in with family commitments, or a job close to home. Other questionnaires that do include such items, e.g. those used by Almquist (1974) and O'Farrell & Harlan (1982), do not provide a comprehensive list of possible work values. It was concluded that it would be necessary to construct a questionnaire for the purposes of this study, using a compilation of the items from existing questionnaires. Items were drawn from all the above mentioned questionnaires,



and in addition from those used in studies by Lyson (1984), McIlwee (1982), Wheeler (1981), and Weinreich-Haste & Newton (1983), to form a new questionnaire - the Work Values Questionnaire. This questionnaire contained twenty two job characteristics presented in a randomised order and rating scales from *Not at all important* (1) to *Very important* (5). This questionnaire was administered to five women to ensure that it was understandable, simple to complete and had high face validity. As a result of this piloting a few minor word changes were made. The Work Values Questionnaire was then completed by twenty women (who were employed in both manual and non-manual jobs of varying sex-compositions, as were the five in the pilot study) on two occasions with an interval of one week inbetween. The mean Pearson's correlation between responses was  $r = 0.76$  ( $p < 0.001$ ). It was therefore concluded that the items of the Work Values Questionnaire had reasonable test-retest reliability.

#### **Perceived Job Attributes Questionnaire**

The Perceived Job Attributes Questionnaire was also constructed for the present study. It was designed to ascertain whether or not male- and female-dominated occupations differ in their characteristics, as perceived by those incumbent in the occupations. For the sake of clarity and comparability the Perceived Job Attributes Questionnaire contains the same twenty two items that were used in the Work Values Questionnaire. Its rating scales, however, differed and went from *Not at all true of my job* (1) to *Very true of my job* (5).

This questionnaire was administered to five women to ensure that it was easy to complete, understandable and face valid. Its test-retest reliability was established as described above. A mean Pearson's correlation of  $r = 0.86$  ( $p < 0.001$ ) was found, and it was concluded that its test-retest reliability was adequate.

### **Manifest Needs Questionnaire**

The Manifest Needs Questionnaire (Steers & Braunstein, 1976) was chosen to give a measure of the subject's needs for achievement, dominance, autonomy, and affiliation. Its particular benefits are that it is short, behaviourally-based, and specific to the work situation. It consists of four scales, one to measure each need. Each scale comprises five items, some of which are reverse-scored. There is a seven-point response scale running from *Never* to *Always*. Each scale score is the mean of its component item scores.

This questionnaire was piloted on five women, all of whom felt it was relatively easy to answer and had some degree of face validity. Its reliability and validity have been established by Steers & Braunstein (1976). They administered the questionnaire to large samples of management students, white-collar employees and hospital workers, and found alpha coefficients of internal consistency ranging from 0.56 to 0.83 for the four scales, and test-retest correlations (with a two week interval) from 0.72 to 0.86. The scales were found to correlate moderately well with the corresponding measures from the Personality Research Form (Jackson, 1967) and with independent rating of the subjects, which provides some indication of its validity.

The questionnaires are reproduced in Appendix E.

In the main, the questionnaires were completed by the subjects immediately after the interview, in the presence of the researcher. However, occasionally time did not permit the questionnaires to be completed at this point and the subjects completed them at a later date and returned them in a stamped addressed envelope that was provided. Subjects typically completed all three questionnaires in about ten minutes.

## Subjects

A total of one hundred women took part in the study. These subjects do not constitute a random sample. There are three reasons why random sampling was not employed. Firstly when a study has a large qualitative component the rigorous sampling procedures used in quantitative research are inappropriate. In qualitative research sample design is usually *purposive*, that is rather than taking a random cross-section of the population to be studied, small numbers of people with specific characteristics, behaviour or experience are selected (Morton-Williams, 1985). Secondly when recruiting subjects to participate in an extended interview which may require them to reveal personal aspects of themselves there will inevitably be a high refusal rate - for example, some researchers report that when recruiting participants for qualitative research it is necessary to approach five or six times as many people as are required (Morton-Williams, 1985) - and this renders it impossible to obtain a random sample. It should also be noted that taking a purely quantitative approach and distributing questionnaires to a random sample of potential participants does not guarantee a random sample of participants because poor response rates, e.g. 38% (Dambrot & Vassel, 1983), 41% (Wolkon, 1972) and 45% (Crawford, 1978), are not uncommon. Thirdly random sampling is not a suitable method for recruiting *rare* subjects, such as women in manual male-dominated occupations. As a result of these considerations the present study uses a *purposive* and primarily self-selected sample.

Seven different methods were employed to obtain the sample of women working in male- and female-dominated occupations (see Appendix F) :

1. A request for interviewees was published in *Working Woman* magazine (Winter issue, December 1985). *Working Woman* has now ceased trading, however a readership survey revealed that

*Working Woman* readers were well-educated - a third had been to university or college; had above average earnings; the majority (84%) worked full-time; and just under half are in the 25 to 34 age group (Working Woman, 1986). This request yielded 70 subjects (out of 79 who made an initial response).

2. A request for interviewees was placed in the London *Women and Manual Trades Newsletter* (December 1985). This yielded three subjects (all of those who made an initial response).

3. A classified advertisement directed at women in manual male-dominated occupations was placed in the contacts section of *City Limits* magazine (12th March 1987). *City Limits* is a listings magazine for the London area. This advert resulted in five subjects (out of an initial response of nine).

4. Letters were written to all those women whose names and telephone numbers appear in the London *Women and Manual Trades Work Register* (October 1986) and whose addresses could be found in the telephone directory, inviting them to participate in the study. This yielded three subjects (eleven letters were sent).

5. Letters were sent to those individuals and businesses undertaking traditionally male-dominated manual work which appeared in the *Everywoman Directory of Women's Co-operatives and Other Enterprises* (February 1987). This yielded another three subjects (six letters were sent).

6. Women I interviewed put me in touch with other women in relevant occupations. This resulted in six subjects (all of those approached).

7. Friends provided me with the names and addresses of women in relevant occupations who might be interested in taking part in the study. None of these women were known to me personally. Ten subjects were obtained in this way (all of those approached).

In all 100 out of 124 (80.6%) of those I contacted and of those who contacted me participated in the study.

The majority of the subjects, seventy in all, were obtained as a result of the letter in *Working Woman* magazine. Groups two to four (see below) did not differ in the proportion of subjects obtained in this way ( $\chi^2 = 2.59$ ,  $p > 0.05$ ). However the *Working Woman* letter did not yield any subjects in group one.

All the women in the study were employed at the time of their participation. The occupations in which they worked fell into five categories :

#### **Group One - Manual Male-Dominated Occupations**

Occupations classified as *Skilled Manual* (social class III(M)), *Partly Skilled* (social class IV), and *Unskilled* (social class V) (Office of Population Census and Surveys, 1980), in which less than one third of the workers are women and in which less than one third of those training in or currently entering the occupation are women. (N = 18)

#### **Group Two - Non-manual Male-Dominated Occupations**

Occupations classified as *Professional* (social class I), *Intermediate* (social class II), and *Skilled Non-manual* (social class III(N)), in which less than one third of the workers are women and in which less than one third of those training in or currently entering the occupation are women. (N = 32)

#### **Group Three - Non-manual Transitional Occupations**

Occupations classified as *Professional* (social class I), *Intermediate* (social class II), and *Skilled Non-manual* (social class III(N)), in which less than one third of the workers are women, but in which more than one third of those training in or currently entering the occupation are women. (N = 17)

**Group Four - Non-manual Female-Dominated Occupations**

Occupations classified as *Professional* (social class I), *Intermediate* (social class II), and *Skilled Non-manual* (social class III(N)), in which more than two thirds of the workers are women or in which more than two thirds of those training in or currently entering the occupation are women. (N = 18)

**Group Five - Miscellaneous (N = 15)**

The miscellaneous group consisted of subjects in occupations which do not fit into any of the other categories. It was often not evident until I had interviewed the subject that this was so. This group provides useful additional information. However direct comparisons will only be made between groups one to four.

It is recognised that the use of the Registrar General's social classification is not uncontentious, particularly when used in relation to women's employment (see Chapter One for further discussion). However since this classification system is widely recognised and is used here solely to divide women into manual and non-manual groups its use in the present study is felt to be justified.

The decision to use two-thirds as the cut-off point above which jobs are classified as gendered (i.e. male- or female-dominated) is an arbitrary one. Researchers have used a variety of percentages ranging from 50% (Betz, 1984) to 80% (Houser & Garvey, 1983) with two thirds and 70% being the most popular. Because this study focuses on horizontal rather than vertical segregation, categorisation was based on the percentage of men and women in an occupation rather than the percentage at a certain level in an occupation. So,

for example, headteacher of a primary school is classified as female-dominated because, although only 44.9% of primary headteachers are women, 77.4% of primary teachers are women (Department of Education and Science, 1984).

Detailed statistical information on the percentages of women in the occupations pertinent to this study is presented in Appendix G.

Financial constraints prevented me from interviewing women who lived a long way from London. Of the one hundred women who took part in the study 73 were interviewed. The remaining twenty seven gave written answers to the questions of the interview schedule. These subjects were instructed to write as much as they wished and to feel free to expand, elaborate and digress in their responses to the questions (see Appendix H). These instructions were designed to elicit meaningful responses reflecting the subjects' views, feelings and values and to ensure that the resulting data is as comparable and similar to that emanating from the interviews as is possible. Groups one to four did not differ in the proportion of women interviewed (because of small expected cell frequencies a Chi Squared test could not be carried out, therefore the table was partitioned as described below and three Fisher's exact probabilities were calculated,  $p = 0.25$ ;  $p = 0.45$ ;  $p = 0.17$ ).

### **The Researcher**

Although it is not customary practice to include in research reports a section on the researcher, I would argue that its inclusion is justified for three main reasons. Firstly, because the interview is a social situation involving two-way interaction, the resulting data will be influenced to some degree by the characteristics of the interviewer. Therefore these characteristics should be made available to the reader, as would any other salient influence in the interview situation. Secondly, an important part of the present study is the

qualitative analysis of the interview data, and this type of analysis is essentially a personal process (Marshall, 1981), so again some description of the researcher is warranted. Thirdly, research findings do not speak for themselves and so require interpretation. Any interpretation will necessarily be informed by the researcher's values and political orientation.

*I am a white, middle-class woman in my mid-twenties. My interest in the present research grew out of my undergraduate research project (Clement, S., 1984) in which fifteen year olds wrote projected autobiographies. I was struck by the extent to which the girls and boys imagined their future lives in terms of traditional sex-role stereotypes, despite the social, attitudinal and legislative changes that had occurred in the preceding two decades. As a result of this project I found I wanted to explore deeper and find out some of the reasons that lay behind this state of affairs.*

*I define myself as a feminist and a socialist. As a feminist I aim to produce research that is non-sexist and in no way contributes to women's oppression. As a socialist I am aware that psychological research often individualises social problems and ignores the structural constraints. I aim to produce research which takes social and structural factors into account, and hope to avoid blaming the victim.*

*I am married and I have a young son (born just after I completed the interviewing). I have therefore experienced some of the constraints and difficulties inherent in marriage and in combining work and motherhood.*

*Finally, my experience of employment is limited to vacation employment in clerical work and in the tourist industry, and to*



*part-time teaching of undergraduate psychology, hence my perspective on employment is largely that of an outsider.*

## **Analysis**

Three types of analysis were performed. Firstly the data from the questionnaires was analyzed statistically. Secondly the interview data that could be coded numerically was analyzed statistically. Thirdly the interview data was subjected to a qualitative analysis.

### **Analysis of Questionnaire Data**

The Work Values Questionnaire yielded 22 importance ratings. The Perceived Job Attributes Questionnaire produced 22 job attribute ratings. The third questionnaire used in the present study, the Manifest Needs Questionnaire, produced four scores, one for each of the needs it measures. Thus there are a total of 48 dependent variables. In this analysis the independent variable is the type of job, i.e. groups one to four.

The data was analyzed using SPSS-X (SPSS Inc., 1983)

The first step in the analysis was to ascertain whether the data allowed the use of parametric tests or whether non-parametric tests must be employed. There are four main assumptions underlying the use of parametric tests :

1. The population from which the sample was drawn should be normally distributed.
2. The observations should be independent. That is, (a) the selection of any one case for inclusion in the sample must not bias the chances of any other case for inclusion, and (b) the score which is assigned to any one case must not bias the score which is assigned to any other case.
3. The measures should have been made on either an interval or a ratio scale.
4. There should be homogeneity of variance.

The analysis of variance test has the additional requirement that the means of the populations must be linear combinations of effects due to columns and rows - this is the assumption of additivity.

It was felt to be desirable to carry out parametric tests wherever possible. There are three reasons for this. Firstly parametric tests are more *powerful* than their non-parametric equivalents when applied to the same data, that is they have a greater probability of correctly rejecting the hypothesis that the results have been produced by chance. Secondly, since in many non-parametric tests data is transformed from scores into ranks, some information is wasted. Thirdly existing non-parametric tests do not permit the testing of multiple planned comparisons.

The first assumption was tested by visual inspection of bar charts and histograms of the distribution of each dependent variable. Those variables that proved to be non-normal were subjected to non-parametric tests.

Assumption 2(a) is breached in a minor way in that six of the subjects (6% of the total sample) were recruited to the study as a result of women I had already interviewed putting me in contact with them. It was decided, however, that given the advantages and robustness of parametric tests, this breach affecting such a small proportion of the sample could be disregarded.

Assumption 2(b) is fulfilled.

The data from the questionnaires is interval in nature, so assumption 3 is upheld.

With regard to assumption 4, Cochran's F, which has been found to have adequate sensitivity for testing the assumption of homogeneity of variance (Kirk,

1965), was calculated. Where heterogeneity was found the use of parametric tests was precluded and non-parametric tests were used.

It is not customary to test the assumption of additivity.

Those variables for which it was permissible to test parametrically (i.e. those that were normally distributed and had homogeneity of variance) were subjected to the following tests. Firstly, a one-way analysis of variance was performed with *group* as the independent variable. Secondly three mutually orthogonal planned comparisons were carried out on the variables for which the ANOVA was significant in order to ascertain where the differences between groups lay.

**Comparison 1** -3 -1 1 3 (linear trend across groups)

**Comparison 2** -1 -1 -1 3 (male- vs female-dominated groups)

**Comparison 3** -3 1 1 1 (manual vs non-manual groups)

The variables requiring non-parametric testing (due to non-normality and/or heterogeneity of variance) were analyzed using the Kruskal-Wallis test with *groups* as the independent variable. Unfortunately the use of non-parametric planned comparisons, such as Kruskal-Wallis comparisons and Jonckheere's trend test, was precluded, due to differences in group sizes which render such tests unreliable. When a significant difference between groups was found, the relevant graph was plotted and visually inspected to establish where the differences between groups lay.

### **Quantitative Analysis of Interview Data**

Full transcripts were produced for roughly half of the tape recorded interviews, and partial transcriptions for several more. The vast majority of this transcription was carried out by the researcher. Having performed a large amount of the coding by working from the transcripts, a high degree of familiarity with the interview format, the coding sheet (see below) and its

categories was attained, thus enabling the remaining interviews to be coded directly from the tapes.

A coding sheet, based on the interview schedule, and a preliminary analysis of 40 transcripts (Clement, S., 1986c), was devised. Data from five transcripts was then coded and as a result the coding sheet was amended to its final version. See Appendix I.

The researcher then proceeded to code all the data from the interviews.

A random sample of ten transcripts was given to an independent rater (a third-year undergraduate in psychology) to code. This provided a check on the reliability of the coding. There was a mean inter-rater agreement of 90%, which indicates an acceptable degree of reliability.

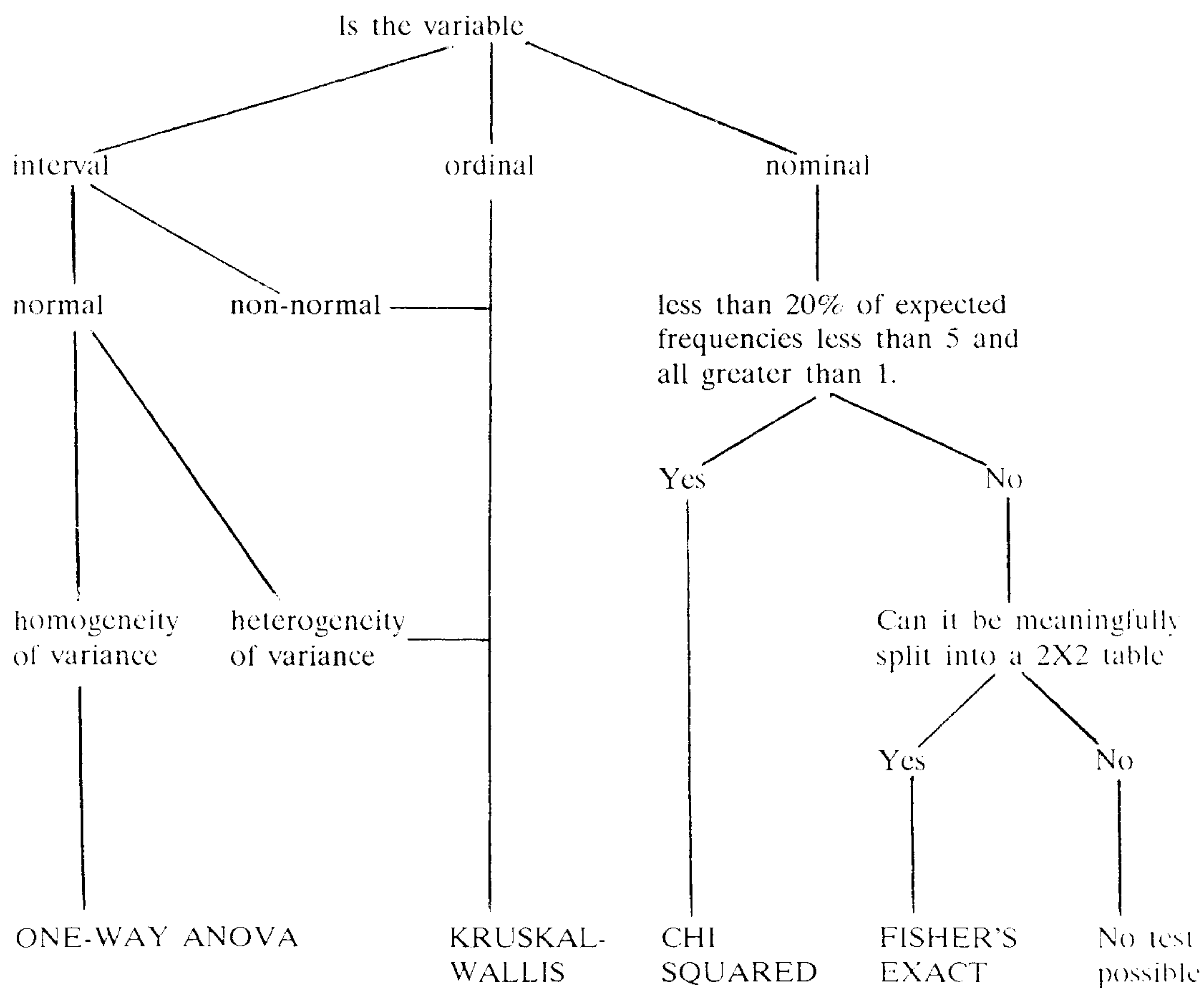
Statistical analyses were carried out using SPSS-X, except in the case of Fisher's exact tests which were performed by hand, following Siegal (1956). The main type of analysis was a comparison across groups one to four. The particular statistic used depended on the nature of the variable being analyzed. The test which was the most powerful and which involved the least loss of information was chosen following the decision procedure depicted in Figure 7.1.

In order to establish where the differences between groups lay, the comparisons C1, C2 and C3 were carried out following a significant one-way ANOVA. Visual inspection of graphs was undertaken following a significant Kruskal-Wallis test (for reasons described above). Following a significant chi squared test, the frequency table was partitioned to produce the nested, nonoverlapping planned comparisons C4, C5 and C6.

Comparison 4	-1	-1	-1	3	(male- vs female-dominated groups)
Comparison 5	-1	1	0	0	(manual male-dominated vs non-manual male-dominated)
Comparison 6	0	-1	1	0	(non-manual male-dominated vs non-manual transitional)

When Chi Squared tests were precluded and Fisher's exact tests were necessary, these were carried out partitioning the frequency table, again, to produce C4, C5 and C6.

Figure 7.1 Type of Statistical Test Employed



Two-tailed tests were used in all instances, both for the sake of consistency and because two-tailed tests are less likely than one-tailed tests to produce Type I errors (reporting significance when none actually exists).

Various relationships between the variables were further elucidated by the calculation of Pearson product-moment correlations and t-tests when parametric testing was possible, and Spearman rank correlations and Mann-Whitney tests when parametric testing was not possible.

It is recognised that the use of large numbers of statistical tests and planned comparisons is problematic and that consequently findings must be interpreted with due caution.

### **Qualitative Analysis of Interview Data**

Qualitative data analysis may be defined as the non-statistical analysis of spoken or written language. Essentially this type of analysis is a process of *making sense*, of finding and making a structure in the data (Marshall, 1981; Jones, 1985).

Although there exists a large body of literature on qualitative research, such literature tends to focus on the data collection part of the research process. Relatively little has been written about the analysis of qualitative data. Jones (1985) speculates that this may be because this type of analysis is a highly personal activity, involving interpretation and creativity, and as such may be difficult or even somewhat threatening to make explicit.

Qualitative analysts typically recognise and value this personal element. Researchers bring to the data they analyze a range of experiences of various kinds - their research skills, what they know of the relevant literature, and their own personal experiences - and, it is argued, this type of *experiential data* should be exploited, rather than be denied or ignored. As Strauss (1987) puts it "Mine

your experience, there is potential gold there!".

It is important to note that, in contrast to the statistical analysis of the interview data which included the independent coding of a subsample of transcripts to ensure adequate reliability, no attempt was made to obtain independent verification of the qualitative analysis. This is because it is recognised that in qualitative analysis the researcher's interpretation will not be the only possible interpretation. However it is argued that careful, systematic analysis will result in an interpretation that is both plausible and useful (Strauss, 1987).

The particular method of qualitative analysis employed in this study was the *Grounded Theory* method (Glaser & Strauss, 1967; Glaser, 1969; Glaser, 1978; Strauss, 1987). The decision to use this method was based on five important considerations :

Firstly, the chosen method should be relatively well-established and one which has been used in many different research settings.

Secondly, it should have an adequate theoretical basis. The theoretical foundations of the grounded theory method are described in Glaser & Strauss (1967) and elaborated in Glaser (1978).

Thirdly, the method should be described clearly, with examples, and in enough detail to allow the researcher to follow the prescribed method. In fact Glaser and Strauss are almost alone in spelling out a systematic, qualitative method (Schwartz & Jacobs, 1979).

Fourthly, the level of analysis required should not be too detailed or *micro* as such types of analysis, for example *cognitive mapping* (Jones, 1981), are not required in the present study.

Finally, the chosen method should have a degree of flexibility and adaptability that allows it to be used in a variety of research situations. It should provide guidelines and rules of thumb, rather than rules to which one must strictly adhere.

The grounded theory method satisfies all the above criteria.

Glaser and Strauss's approach to the qualitative analysis of data is termed grounded theory because of its emphasis on the generation of *theory* and the data in which that theory is *grounded*. In summary, the grounded theory method is as follows.

The first step, having collected the data, is to begin *coding* the data into *categories*. These categories are not decided upon in advance. The initial phase of coding is termed *open coding* which involves the unrestricted coding of data in an entirely provisional manner. Researchers are instructed to ask themselves "What category does this incident indicate?" Consideration is given to the conditions, interactions, strategies and consequences pertinent to the given category. When coding an incident for a category the researcher must compare it with previous incidents coded in the same category, indeed the grounded theory method is sometimes referred to as the *constant comparative* method (Glaser, 1969) because of the comparisons that must be constantly made. This coding and constant comparison continue until a category is *theoretically saturated*, that is when additional analysis no longer contributes anything new about the category. Next the researcher moves on to *axial coding* which consists of intense analysis around one category at a time. This results in cumulative knowledge about the relationships between that category and other categories and subcategories. During coding and memo writing (see below), a small number of *core categories* appear, that is categories that are central to the emerging theory. The researcher then codes selectively and concertedly for the core categories, a phase of the analysis which is termed *selective coding*.



The writing of theoretical memos is a crucial part of the grounded theory method. A memo is a note in which the researcher puts down theoretical questions, hypotheses, hunches, thoughts, summaries of codes etc. It is basically an externalisation of the researcher's own internal dialogue. Memos are a means of keeping track of coding results and stimulating further codes. Glaser and Strauss argue that memos are also indispensable to the discovery, development and formulation of grounded theory. The researcher is instructed to write memos throughout the coding process, not solely when inspiration strikes, but also at regular predetermined intervals. There are various types of memo : initial, orienting memos; memos on new categories; memos distinguishing between two or more categories; memos extending the implications of a borrowed concept; and many others. Strauss (1987) stresses that researchers should be flexible in their use of memos and that each analyst will have her or his own personal recipe for memo writing. From time to time the memos themselves are examined and sorted which results in new ideas, thus new memos.

The coding and memo writing gradually leads the researcher into the next phase of analysis, which is termed *integration*. In this phase the researcher examines, sorts and resorts memos, studies the core categories that have emerged, may produce visual diagrams to clarify her or his thoughts, and out of this a theory is constructed. The goal of the grounded theory type of analysis is the production of an integrated, substantive theory which has *grown* out of the data. By using this method one progressively climbs higher and higher on the ladder of abstraction (Schwartz & Jacobs, 1979) until one has produced a plausible and meaningful theory to explain the behaviour or situation in question.

Finally the theory is written up, a process which is in itself an integrative mechanism, and thus the theory, to use Glaser and Strauss's term, is *discovered*.

In the present study coding and memo writing began using full transcripts of the interviews. However about half way through the coding process I had become well practised in the art of coding and memo writing and was familiar with the categories that had already emerged so was able to code the remaining interviews directly from the tapes. Deciding on the appropriate unit of analysis did not present a problem, because, like Marshall (1981), I found that the required level of analysis was fairly obvious as chunks of meaning emerged from the data itself. Memos were written as soon as interesting, pertinent thoughts came to mind, and also after the analysis of every tenth interview to ensure regular memoing. Open, axial and then selective coding was carried out; core categories appeared; memos were sorted and resorted; diagrams were produced; I immersed myself in the data and my interpretations of it; integrated the findings; and wrote up the emergent theory, using carefully selected verbatim quotes to illustrate and animate the theory.

# CHAPTER EIGHT

## Results I :

### Women's Occupational Choice

In this and the following chapter the results (both quantitative and qualitative) of the main study are presented. In this chapter results relating to women's occupational choice are discussed. The findings pertaining to women's experiences at work appear in Chapter Nine. These two chapters focus in the main on comparisons between the women in groups one to four. Further qualitative findings are presented in Chapter Ten, in conjunction with an evaluation of existing theories and with the proposed model of women's occupational choice.

Of the 203 quantitative variables derived from the interview, all but six could be subjected to statistical tests comparing groups one to four. Statistical tests could not be carried out for the variables : influence of marriage on work life; influence of housework; influence of children; childcare arrangements made; whether boss/supervisor treats one differently from men in the same job; and clients' reactions to finding a woman in the job.

For details of the frequencies, means and standard deviations of the quantitative data over groups one to four, see Appendix J.

## Demographic variables

The women in the study varied in age from 20 to 59, the mean age being 33.3 years (s.d. = 8.45). All but nine of the women in the study were British. Three women were from the United States, two from Canada, one from New Zealand, one from France, one from Germany, and one from Switzerland. None of the subjects were black or ethnic minority women, therefore it was not possible to investigate the effects of race. The subjects lived in various parts of the United Kingdom, although 45 per cent resided in London. The four groups did not differ in age, nor in nationality. However the women in manual male-dominated occupations were significantly more likely to be living in London. See Table 8.1.

Table 8.1 Demographic variables<sup>1</sup>

<i>Variable</i>	<i>Test done</i>	<i>Overall C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Age	ANOVA	NS					
Live in London ?	Chi squared	18.5***			5.15*	12.2***	NS
British ?	Fisher				NS	NS	NS

<sup>1</sup> The statistics shown are the F ratio when a oneway analysis of variance had been carried out; the t statistic for the planned comparisons following ANOVA; the chi squared value when a chi squared or a Kruskal-Wallis test had been performed; and the Fisher exact probability when Fisher tests had been undertaken.

NS Not significant, i.e. no statistically significant differences between groups were found

\* p < 0.05

\*\* p < 0.01

\*\*\* p < 0.001

## Family background

The sample was largely middle class, in that 80 per cent of the fathers and 83 per cent of the mothers of those in groups one to four were in non-manual occupations.

Parents tended to work in gender-typical occupations. Twenty five per cent of fathers were in gender-neutral work, and only four per cent worked in female-dominated occupations. Sixteen per cent of mothers were in gender-neutral jobs and four per cent were in male-dominated occupations.

None of the parental variables measured differentiated between the women in groups one to four. See Table 8.2. Therefore the hypotheses, H1, H2, H3, H4, and H5, outlined in Chapter Six, are confirmed.

Table 8.2 Parental variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Father in manual or non-manual work	Fisher					NS	NS	NS
Mother in manual or non-manual work	Fisher					NS	NS	NS
From a broken home ?	Fisher					NS	NS	NS
Father absent during childhood ?	Fisher					NS	NS	NS
Gender-domination of father's job	Kruskal-Wallis	NS						
Gender-domination of mother's job	Kruskal-Wallis	NS						
Has mother ever done a male-dominated job	Fisher					NS	NS	NS
Extent of maternal employment	Kruskal-Wallis	NS						

Maternal satisfaction with being employed or not being employed	Kruskal-Wallis	NS
Maternal satisfaction with type of employment undertaken	Kruskal-Wallis	NS
More similar in personality to mother or father ?	Kruskal-Wallis	NS
More similar in attitudes to mother or father ?	Kruskal-Wallis	NS
Closer to mother or father ?	Kruskal-Wallis	NS
Poor relationship with parents	Chi squared	NS

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Some of the inter-relationships between variables were examined to see whether they might explain some of this non-significance.

The relationship between extent of maternal employment and group was examined controlling for maternal satisfaction with being employed or non-employed; for maternal satisfaction with type of employment undertaken; for similarity in personality to mother; and for similarity in attitudes to mother. This showed that when subjects perceived their mothers to be satisfied with their job, then there was a significant relationship between extent of maternal employment and group ( $\chi^2 = 9.28, p < 0.05$ ). When controlled for in this way, the mothers of the women in non-manual male-dominated occupations resumed employment earlier than those in the other groups. All the other inter-relationships were non-significant.

The relationship between mother's resumption of employment and the length of subject's anticipated childcare break was also examined, but no significant

relationship was found. However controlling for the above mentioned variables (maternal satisfaction with being employed, maternal satisfaction with type of employment, similarity in personality to mother and similarity in attitudes to mother) revealed that for those who perceived their mother to be neither satisfied nor dissatisfied with her type of employment, there was a significant positive relationship between maternal resumption of employment and length of subject's anticipated childcare break ( $r = 0.72, p < 0.05$ ). However this finding must be viewed with some caution due to the small number of women in this category ( $n = 7$ ). Controlling for the other variables failed to reveal any further significant relationships.

Thus it appears that whilst none of the parental variables differentiate between groups one to four, there is evidence for the effect of maternal employment when maternal satisfaction is taken into consideration.

The qualitative data reveal that maternal influence is a complex phenomena. There was some evidence of imitation or positive role modelling, particularly in relation to the combining of employment and motherhood.

*She [mother] influenced me I think most in that I accepted that women did go out to work. A lot of my friends' mothers didn't work and it sort of seemed entirely natural to me all my life that, you know, mummy went out to work as well, and daddy helped with the housework... And so I think perhaps in that sense it gave me the expectation that I wasn't going to be, you know, someone's little wife rushing around making bread and cooking tea. I think that was the most important thing from my mum. (42: Chartered accountant)*

*I think the fact that she's worked and had a family late in life influenced me in that I saw it wasn't abnormal to do that, it was perfectly alright to have a family when you're 36, 38, its not a problem. And the fact that she worked influenced me. I never assumed I wouldn't work, ever. (63: Retail manager)*

Mother's were sometimes cited as positive role models with regard to female-dominated employment.

*My mother and my father had both done nursing before I was born. I thought if they could do it, I could too. (73: Midwife)*

Although there was little evidence of direct positive role modelling with regard to undertaking male-dominated occupations (which is unsurprising since so few of the mothers were in such employment), sometimes mothers' activities within the home had a positive role modelling effect.

*I don't think so [that I've ever had a role model]. The only thing I can think of would be my mother who had always, for as long as I can remember, taken things to bits. I mean she will take things like a washing machine totally into small pieces and put it back together and it would be fixed. (11: Builder)*

There was also, however, much evidence of negative role modelling, that is learning from the mother's experience and avoiding such situations. Sometimes women reacted against their mother's role as a housewife and became more oriented towards employment.

*[I was influenced by the fact that my mother was a housewife] very much so, in that its not what I wanted. You know, I saw that she devoted all her time to bringing us up. Whatever time we walked in from work or school a meal was presented on the table. We never did any help in the house. You know, she just seemed as if we were her whole life, and she'd got nothing round it. (99: Probation officer)*

This was often particularly the case after a parental divorce which left the mother in a vulnerable position.

*I think what influenced me most about her life has been not wishing to get caught in the same trap of raising children with no support really from anyone, and no qualifications to earn a reasonable income. And I was lucky in that I saw that so early on because, as I say, it made me go on with the dentistry for one thing and stopped me from drifting around in the sixties when it was very easy to drift around. I knew that life could be harder than that. (56: Dentist - general practice).*

Sometimes a mother's work experiences made the daughter feel disinclined to enter particular occupations.

*I also used to see how tired she [mother] got, physically, and I think that's another thing that frightened me off teaching. Emotionally its terribly draining and I don't think I could cope with that side of it. And frankly I don't think it made family life terribly happy. I think my father found it hard to cope with because she was giving so much emotionally to her job, so I think that was another thing that steered*



*me not wanting to teach. (88: Archivist)*

Negative role modelling, however, does not always push women in the direction of greater career involvement.

*My mother worked in the shop until seven o' clock every night. And that's the one thing that did influence me that whatever job I do, if I had children, I would always be there when the children got home from school. And that's one of the things that nursing did for me and my part-time teaching did for me. And when I was teaching full-time I couldn't be there immediately on their return, but I was there very shortly after. (72: Teacher - modern languages)*

As well as positive and negative role modelling, another important maternal influence is when daughter's fulfil their mother's wishes and become what she would have liked to have become.

*The reason I went into teaching was that my mother had always wanted to be a teacher, and she did the classic thing of taking her eldest daughter and transposing all those wishes onto her. She was quite clear in her head from the minute I went to school at five was that what I was going to be was a teacher... And the thing was never discussed. I was never consulted about what I wanted to do. She was quite clear that this is what I was going to do. And I just somehow got into this funnel and was pushed along it [and became a teacher]. (2: Painter & decorator)*

Others react against maternal expectations.

*I think she [mother] has influenced me in that whatever she wants me to do I do the opposite, that would be about it. I think she influenced me in the fact that there was so much overkill with this lawyer business [mother wanting daughter to become a lawyer], that I think she pushed me in the other direction. I think that if she and my father had left me to my own devices I would probably have been something else today. Yes I think that is a big influence in my life... I have a very strong streak in me that wants, even at this age, to go against what they want. (15: Underground train driver)*

The final two types of maternal influence are encouragement and discouragement. Often encouragement was rooted in the mother's lack of opportunities.

*My mother didn't have a college education and it was always "Go, go, push yourself, you can do better". (37: Economist)*

Maternal discouragement could also be a strong force.

*When I was about 14 I was reading up about RSPCA type jobs and working with horses and stuff, but I was actively discouraged from getting involved with horses while I was at school by my mum... And jobs like the RSPCA and so on, my mum would say "You'd be no good at that, you're too intelligent for that sort of thing because its not academic enough, you'd never be happy doing that sort of thing... Later when I wanted to do Art A level, my mother said "Maths, do maths A level", so I did maths. With art my mother belittled it and didn't encourage me to find out about what opportunities there were, what courses. It was a second rate profession as far as she was concerned. (86: Secretary / motor cycle instructor)*

It will therefore be evident that maternal influence is not a unitary, unidirectional force. A woman may be subject to more than one type of maternal influence, and may also receive mixed messages.

*My mother [who is a teacher] has done quite a lot to put me off teaching in that she's always said "Don't do teaching, its a mugs game". But then at the same time she's always said "You'd make a good teacher, you like little children, perhaps you ought to be a teacher". (84: Secretary)*

Turning now to brothers and sisters, none of the variables relating to siblings, birth order and family size, differentiated between groups one to four. See Table 8.3. Thus hypotheses H6 and H7 are confirmed.

Table 8.3 Sibling variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Size of family of origin	ANOVA	NS						
Birth order	Kruskal-Wallis	NS						
Eldest, middle or youngest child ?	Kruskal-Wallis	NS						
Only child ?	Fisher					NS	NS	NS
Number of brothers	ANOVA	NS						
Number of sisters	Kruskal-Wallis	NS						

Number of elder brothers	Kruskal-Wallis	NS			
Number of elder sisters	Kruskal-Wallis	NS			
Has one or more sibling in gender-atypical work	Fisher		NS	NS	NS

---

The qualitative data also provide some information about the influence of siblings. Brothers and sisters appear to have much less influence than parents. In some cases, nevertheless, they do seem to assert an important influence. In the present sample there was evidence of siblings acting as positive role models.

*My brother had done science A levels and I assumed I would do the same. (55: Dentist - orthodontics)*

*At that time I wanted to follow in my big sister's footsteps and she'd been a secretary so I wanted to be a secretary. (99: Probation officer)*

Brothers and sisters may also offer encouragement and discouragement.

*I spoke to my brother [about doing an engineering degree], said did he think it was a good idea, and he said "Yes, good idea sister, go ahead, try that". (19: Mechanical engineer)*

*[I was interested in doing medicine] but something I'd noticed is how my brother is about women doctors. You know, its always "Women are a waste of time, training them, because they go and get pregnant" and his attitude is always they've taken the place of a man... I think that could have put me off, because I was certainly quite influenced by him when I was that sort of age. (34: Computer programmer/analyst).*

## Childhood

Overall there are many similarities in the childhoods of women in groups one to four. See Table 8.4.

Table 8.4 Childhood variables

<i>Variables</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Brought up in a village, a town or a city ?	Kruskal-Wallis	NS						
Being a tomboy	Kruskal-Wallis	NS						
Having many male friends during childhood	Fisher					NS	NS	.041*
Number of traditionally male childhood activities	Kruskal-Wallis	NS						
Number of traditionally female childhood activities	Kruskal-Wallis	10.9*						
Reading as childhood activity	Chi squared	NS						
Writing as childhood activity	Fisher					NS	NS	NS
Sport as childhood activity	Chi squared	NS						
Music as childhood activity	Chi squared	NS						
Youth clubs, brownies etc. as childhood activities	Chi squared	NS						
Outdoor play as childhood activity	Chi squared	NS						
Art as childhood activity	Fisher					NS	.000***	NS
Having a solitary childhood	Fisher					NS	NS	NS
Having a job while still at school	Fisher					NS	NS	NS
Having a traditionally male job while still at school	Fisher					NS	NS	NS

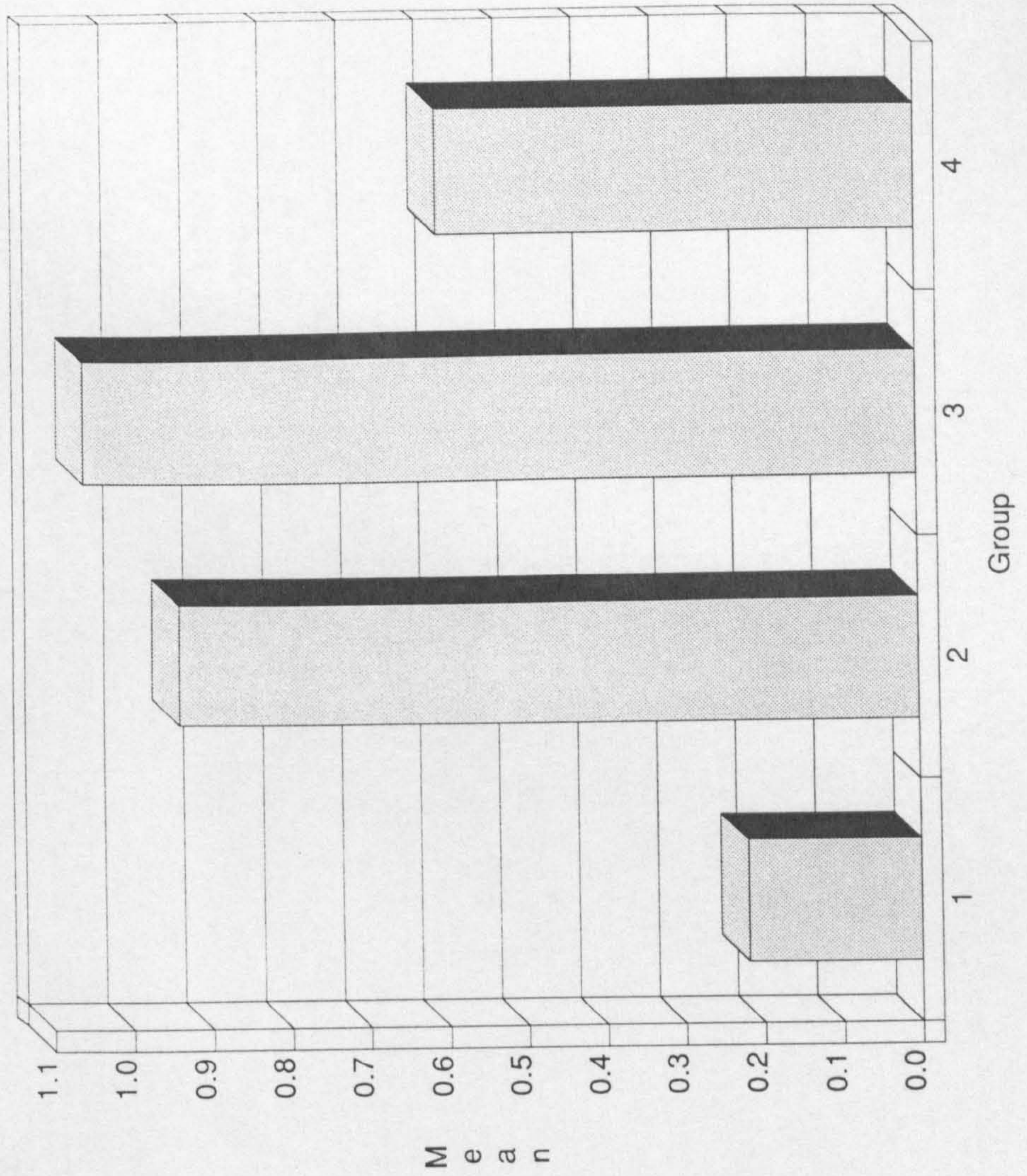
The women in groups one to four did not differ in whether they were brought up in a village, a town or a City, confirming hypothesis H8.

There were also no differences in whether the women in groups one to four reported having been tomboys. The qualitative data revealed that *tomboy* was not a unitary concept, but was rather made up of several different factors, including participating in sport, climbing trees and other forms of outdoor play, wearing trousers rather than dresses, not caring about appearance, participating in traditionally male activities, not participating in traditionally female activities, not being submissive, and playing mainly with boys rather than girls.

The present research provides quantitative data on four of the factors that appear to make up tomboyishness : doing traditionally male activities, playing sport, having male friends, and not undertaking traditionally female activities. For the first two of these variables no significant differences between groups were found. However the women in non-manual transitional occupations were more likely to report having had many male friends during their childhood than were those in non-manual male-dominated occupations. In addition the women in manual male-dominated occupations had undertaken significantly fewer traditionally female activities and hobbies during their childhood than those in the other groups. See Figure 8.1.

The final childhood variable that proved significant is having art as a childhood activity or hobby. The women in manual male-dominated occupations were far more likely than those in any of the non-manual groups to have done a lot of art in their spare time during their childhood. This finding is perhaps not surprising since just over half of the women in this group are in occupations, such as painting and decorating, carpentry and cabinetmaking, that involve art-based skills.

Figure 8.1 Number of Traditionally  
Female Childhood Activities by Group



## Education

In contrast to the family background and childhood variables mentioned above, education appears to exert quite an important influence on the types of occupation women enter. See Table 8.5.

Table 8.5 Educational variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Studied A levels ?	Fisher					NS	.061*	NS
Obtained a degree ?	Chi squared	8.40*				NS	NS	NS
Did degree as mature student	Fisher					NS	NS	NS
Strong dislike of school ?	Fisher					NS	.002**	NS
Single sex or mixed school	Chi squared	NS						
Type of school	Kruskal-Wallis	11.0*						
Number of traditionally male O levels offered	ANOVA	NS						
Number of traditionally male O levels studied	ANOVA	3.01*	NS	NS	NS			
Number of A levels studied	ANOVA	NS						
Number of traditionally male A levels studied	Kruskal-Wallis	20.6***						
Chose A level subjects on basis of ability	Fisher					NS	NS	NS
Chose A level subjects on basis of interest / enjoyment	Fisher					NS	NS	NS

Chose A level subjects on basis of parental influence	Fisher	NS	NS	NS
Chose A level subjects on basis of future career	Fisher	NS	NS	NS
Chose A level subjects on basis of them being a good combination	Fisher	NS	NS	NS

---

The women in manual male-dominated occupations were less likely to have studied for A levels than the women in non-manual male-dominated occupations. There was also a significant difference in the proportion of women with degrees. Whilst comparisons, C4, C5 and C6, proved non-significant, visual inspection of the relevant graph reveals that it is women in manual male-dominated occupations who are the least likely to have obtained a degree and those in non-manual transitional occupations who are the most likely to have degrees. See Figure 8.2. It should be noted, however, that 72 per cent of the women in manual male-dominated occupations did study for A levels, and 50 per cent of them have degrees. It seems likely that this group is more highly educated than a comparable group of men in manual male-dominated occupations would be.

It is also interesting to note that the women in manual male-dominated occupations were more likely to report a strong dislike of school.

There were no differences between groups in the proportions of women attending single-sex or coeducational schools. Those at coeducational schools had more traditionally male O level subjects open to them ( $t = 4.85$ ,  $p < 0.001$ ), but no such difference was found with regard to the number of traditionally male O level subjects studied. No significant differences were found between those in single sex and coeducational schools in the number of A levels taken, nor in the number of traditionally male A levels taken.



Figure 8.2 Percentage of Subjects with Degrees



Whilst there were no differences between those in groups one to four in the proportions attending single sex or coeducational schools, the type of school (secondary modern, comprehensive, grammar or independent) did discriminate between groups. Those in non-manual transitional occupations were more likely to have attended high status schools, and those in manual male-dominated occupations were more likely to have attended low status schools. See Figure 8.3. Interestingly there is a strong correlation ( $\rho = 0.46$ ,  $p < 0.001$ ) between type of school and salary. This effect remains for the manual male-dominated group ( $\rho = 0.42$ ,  $p < 0.05$ ) and for the non-manual female-dominated group ( $\rho = 0.51$ ,  $p < 0.05$ ) when the effect of group is controlled for.

Choice of school subjects also appears to be important. Whilst the groups did not differ in the number of traditionally male O level (or CSE) subjects open to them. They did differ, however, in the number of such subjects that they chose to study, with those in non-manual male-dominated occupations taking the most and those in non-manual female-dominated occupations taking the least. See Figure 8.4. At A level the same pattern emerges, but the effect is even stronger. See Figure 8.5. The women in non-manual male-dominated occupations took the largest number of traditionally male A levels, whilst those in female-dominated occupations took the least, even though the groups did not differ in the number of A levels they took overall.

The groups did not differ in the reasons behind their choice of A level subject. The qualitative data revealed that subject choice was determined by a large number of inter-related factors including interest, ability, the availability of subjects, timetable constraints, career considerations, the need to choose a "good combination" of subjects, how well subjects were taught, perceptions of how easy or difficult different subjects were, and parental and teacher encouragement or discouragement.

Figure 8.3 Type of Secondary School attended by Group



Figure 8.4 Number of Traditionally Male  
O Levels studied by Group

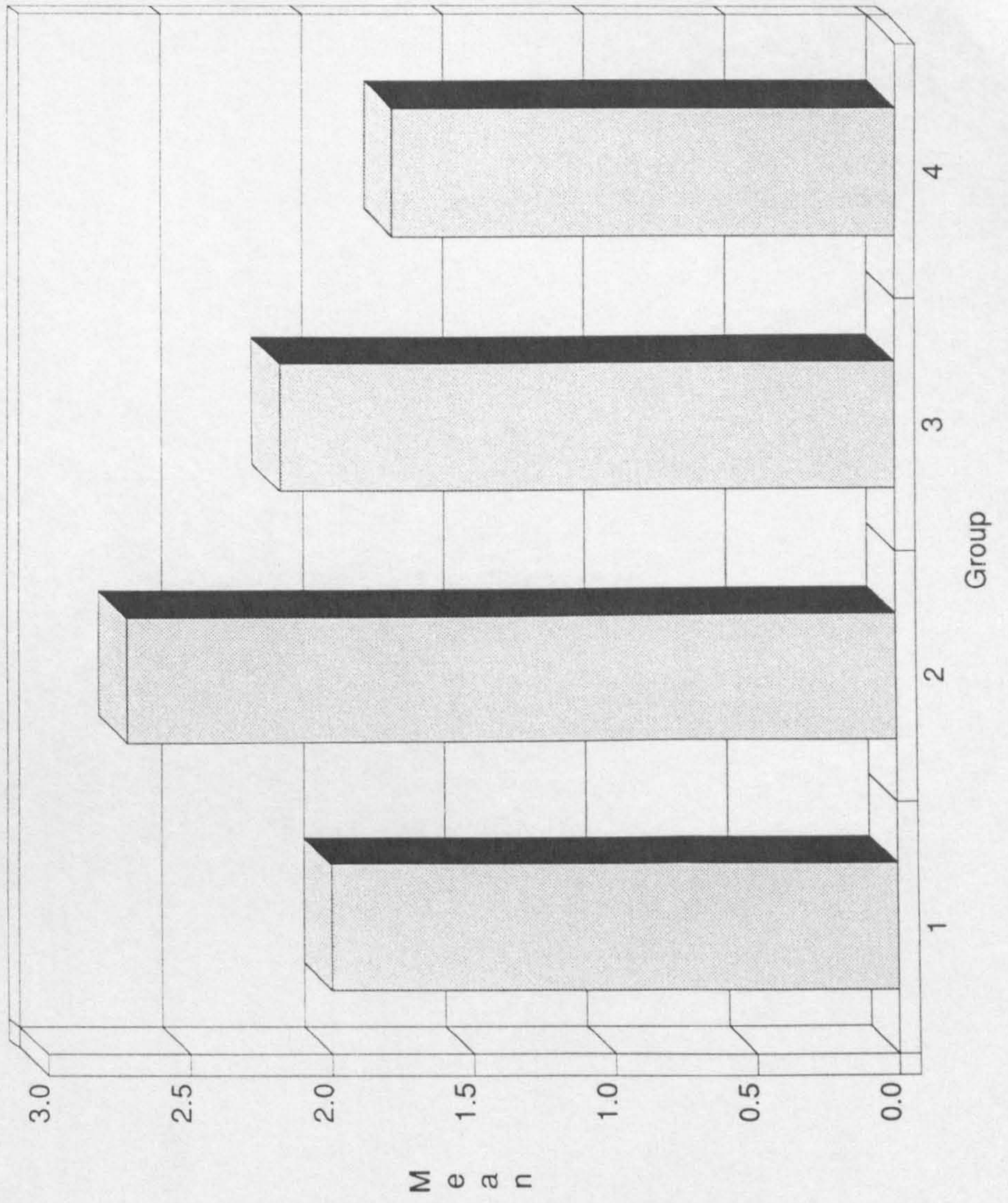
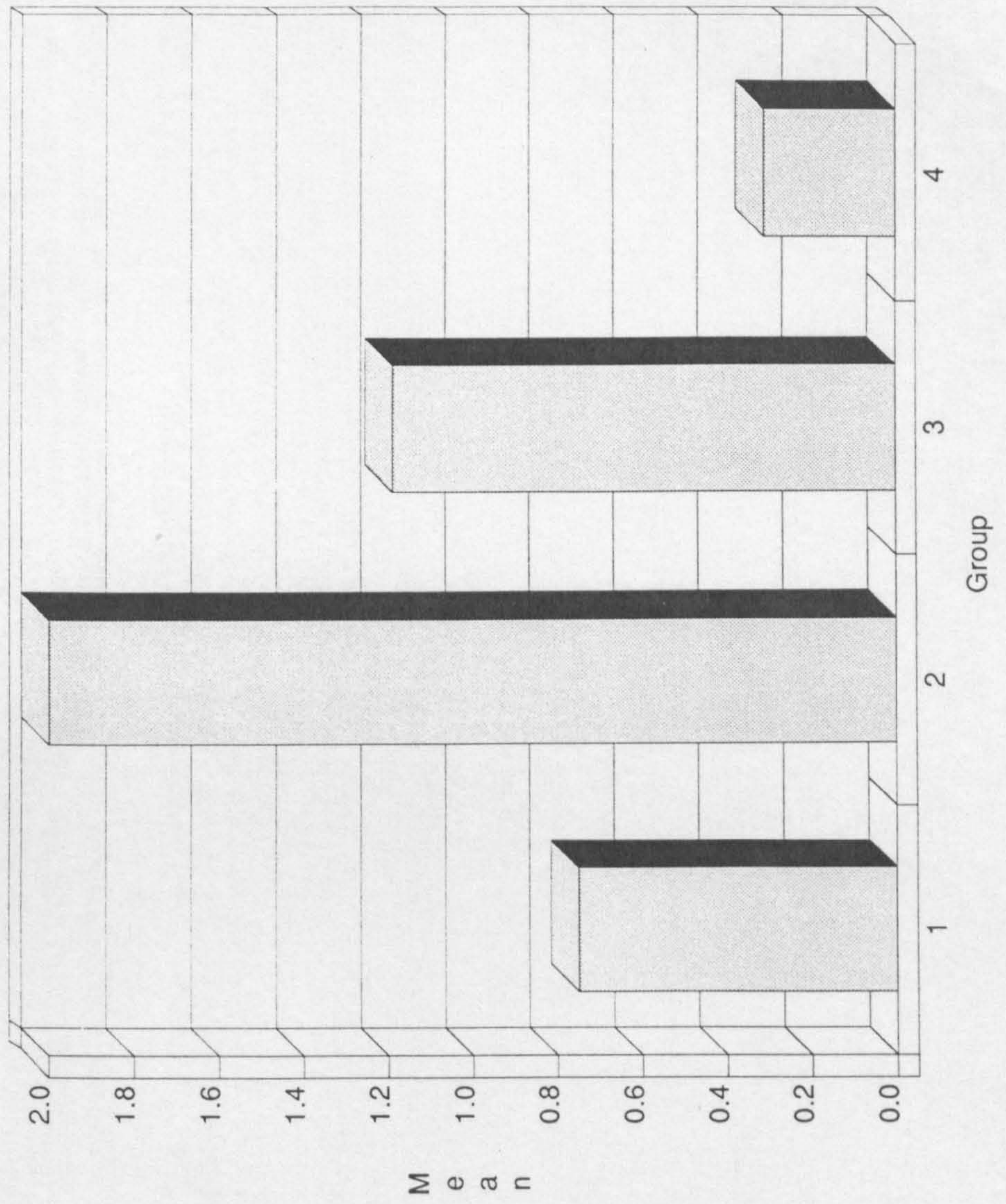


Figure 8.5 Number of Traditionally Male  
A Levels studied by Group



Careers education and counselling, either at school or afterwards, do not appear to be determining factors in the type of occupation entered. See Table 8.6. Only 14 per cent of women felt that careers education / counselling had any effect on their occupational choices and decisions.

Table 8.6 Careers education / counselling variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Amount of careers education/counselling received at school	Kruskal-Wallis	NS						
Satisfaction with school careers education/counselling	Kruskal-Wallis	NS						
Amount of post-school careers education/counselling received	Kruskal-Wallis	15.4**						
Satisfaction with post-school careers education/counselling	Kruskal-Wallis	NS						
Perceived influence of careers education/counselling on occupation entered	Kruskal-Wallis	NS						

Visual inspection of the relevant graph reveals that the difference between groups in the amount of post-school careers education / counselling received is largely due to those in manual male-dominated jobs receiving less post-school careers education / counselling, and to a lesser extent to those in non-manual transitional occupations also receiving less post-school careers education / counselling. This can be explained by the fact that those in manual male-dominated occupations were less likely to have had any higher education (higher education establishments being the main providers of post-school careers education / counselling), and by the fact that a large number of those in the non-manual transitional group followed vocational degrees, such as law and

medicine, and as such were less in need of careers education / counselling.

The older women in the sample had typically received no careers education or counselling at all. Overall 32 per cent of women claimed they had received no careers education or counselling at all whilst at school. Sometimes it was the parents rather than the pupil who was the recipient of this advice. For many though, no careers education / counselling was thought to be necessary because occupational destinations were largely dependent on type of school, ability (or perceived ability) and "suitable" occupations for young women.

*The school [independent school] was divided into two very distinct factors. If you were intellectually equipped it was assumed you would go to university, and not just any but Oxford and Cambridge, and if you weren't likely to achieve any exam distinctions they seemed to feel that you needed an interim occupation before the right man came along and you became his wife. Many girls did get to university because it was an academic school, but of those who didn't, most ended up cooking director's lunches and going to Switzerland for finishing courses. (61: Solicitor - commercial law)*

*Certainly at a girls grammar school such as it was the idea was that if you were good enough you went to university, if you weren't quite so good you went to teacher training college, and if you were less good you went to secretarial college. (89: Research officer)*

*There was a sort of constant undercurrent of assumptions that somehow those of us in the first two streams [of secondary modern school] were going to go into commercial jobs, you know, be secretaries and typists... The girls in the lower streams were sort of destined to do even worse things, like shop assistant jobs and factory work. (6: Carpenter)*

Many of the younger women in the sample had received some form of careers education or counselling. However it was generally felt to be unsatisfactory since 74 per cent described the careers education / counselling received at school as not helpful at all.

Several women mentioned being discouraged and steered away from male-dominated occupations by careers advisors, often because they felt it would be

very difficult for a woman to succeed in such occupations.

*At college the careers advisor said "Forget geology, go into something like environmental science, you won't get into geology, you're a woman", which put my back up immediately and I eventually gave up seeing the careers advisor because he was absolutely no help whatsoever. (25: Geologist)*

Others mentioned being directed into female-dominated occupations.

*I can remember one career discussion where they said "What are you interested in?" and I said "I'd like to be a dentist", and it was suggested that I be a dental nurse. (34: Computer programmer / analyst)*

There was a widespread feeling amongst the women that before they entered they labour force they knew nothing about occupations at all.

*I didn't really know many careers whilst I was at school. Things like teaching, nursing, office work, civil service etc., and those in the immediate area were the only ones I knew about. I'd never heard of things like stockbroking, financial analysts, marketing, export/import and the like. They were totally unknown to me. (79: Personnel officer)*

It was generally felt that the main aim of careers education / counselling is to rectify this profound lack of occupational knowledge. The two things the women wanted were the opportunity to talk to people working in various occupations, and the need for temporary work placements.

Those who had undertaken such work placements invariably found them useful, often because it showed them what they did not want to do.

*After the O levels the people that were going to stay on for A levels were given the opportunity of being placed in a local junior or infants school for the rest of the term, which I did, and I made up my mind I wasn't going to be a teacher. (86: Secretary / motor cycle instructor)*



## Work history

The women in groups one to four appear to differ in their work history. See table 8.7.

Table 8.7 Work history variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Number of previous occupations	Kruskal-Wallis	16.0**						
Number of female-dominated previous occupations	Kruskal-Wallis	9.88*						
Number of gender-neutral previous occupations	Kruskal-Wallis	NS						
Number of male-dominated previous occupations	Kruskal-Wallis	9.69*						
Extent of unemployment	Kruskal-Wallis	10.2*						
Spent more than three months abroad	Chi squared	NS						

Inspection of the relevant graphs reveals that it is the women in manual male-dominated occupations who have had the most varied work histories. They have had more previous occupations overall than the other groups, and have previously done more female-dominated occupations than those in the other groups. They have also previously done more male-dominated occupations than the other groups, although the women in non-manual male-dominated occupations come a close second in this respect. Those in manual male-dominated occupations were also more likely to have been unemployed. Indeed 38 per cent of this group had been unemployed for over six months at some point in their lives. Those in the non-manual transitional group were the least

likely to have been unemployed. See Figure 8.6.

## Psychological characteristics

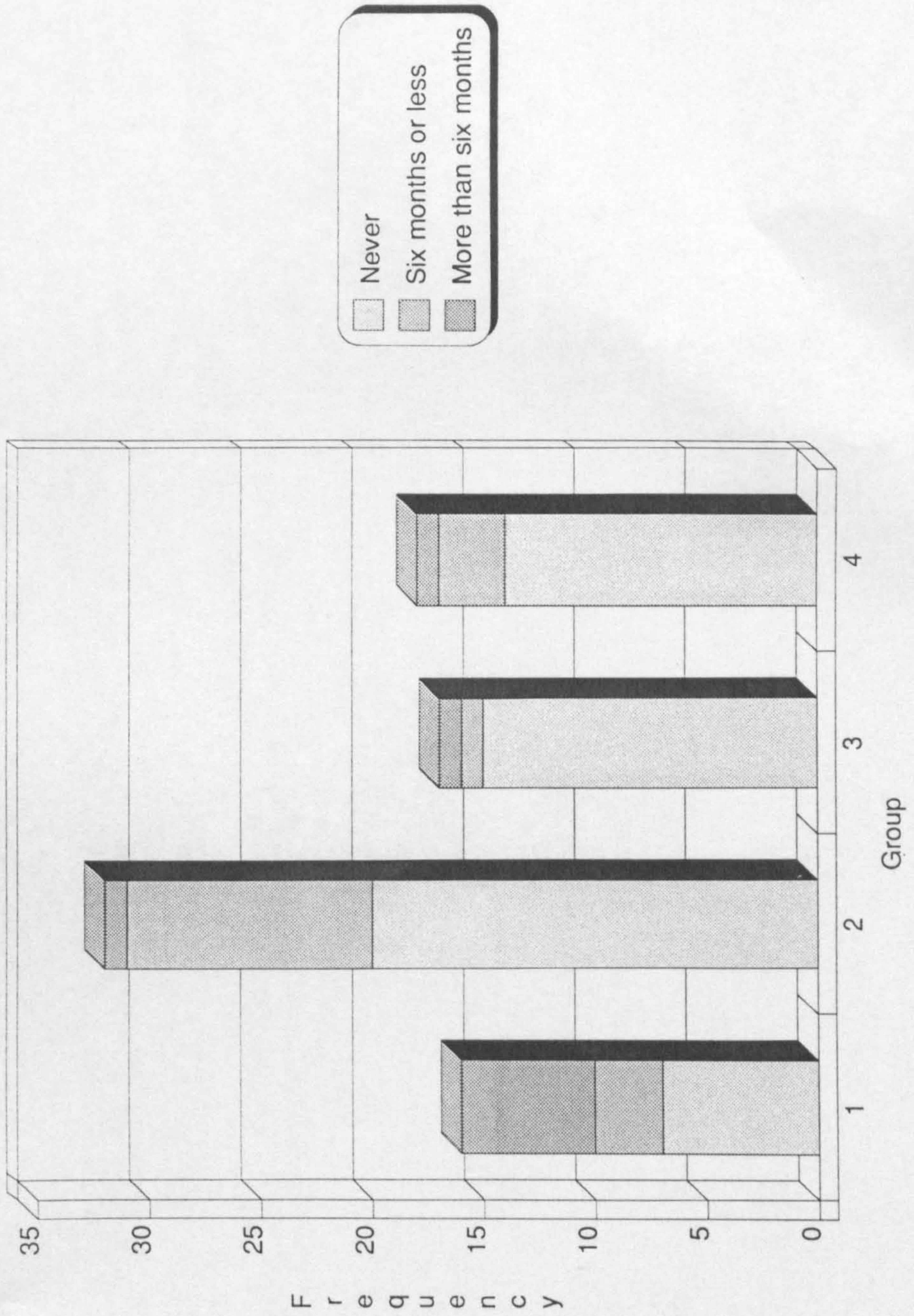
The first type of psychological characteristics to be considered are occupational preference variables. Three of the six occupational preference variables differentiate between groups one to four. See Table 8.8.

Table 8.8 Occupational preference variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Number of childhood occupational preferences	ANOVA	NS						
Number of occupational preferences during teens	ANOVA	NS						
Number of male-dominated childhood occupational preferences	Kruskal-Wallis	NS						
Number of male-dominated occupational preferences during teens	Kruskal-Wallis	8.74*						
Age when decided on present occupation	ANOVA	5.95**	2.87**	NS		3.52**		
Gender-domination of ideal occupation	Kruskal-Wallis	28.5***						

The groups did not differ in the number of childhood (up to age 12) occupational preferences, nor in the number of male-dominated childhood preferences. Whilst they did not differ in the number of teenage (from age 13 to 18) occupational preferences, they did however differ in the number of male-dominated occupational preferences they held during their teens. Those in non-manual male-dominated and non-manual transitional occupations held more

Figure 8.6  
Extent of Unemployment by Group



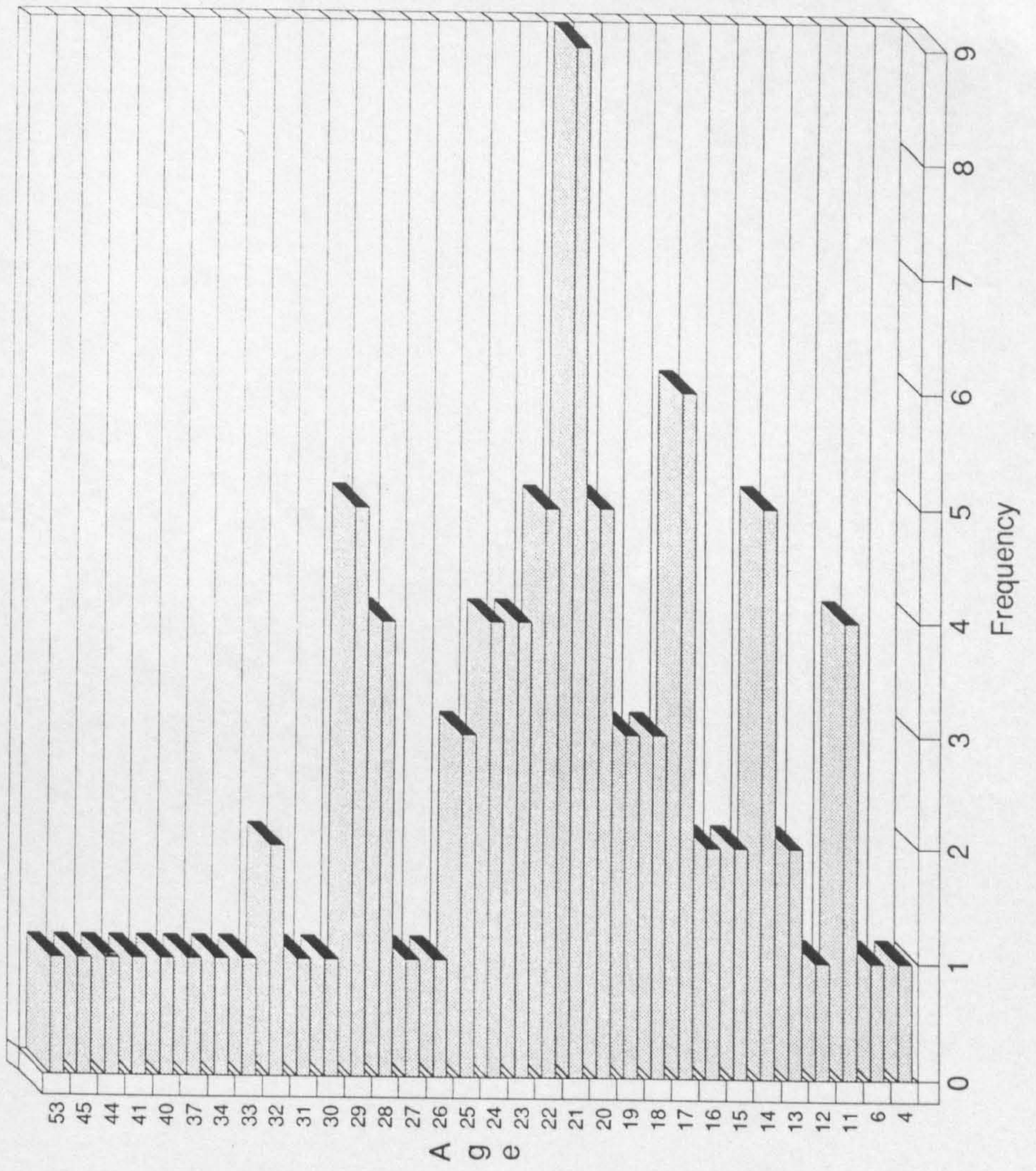
male-dominated occupational preferences during their teens than did the women in the other two groups.

The most popular childhood occupational preference was teacher (17 per cent of subjects wanting to be a teacher during their childhood), followed closely by nurse (15 per cent). Other popular preferences were animal-related jobs (12 per cent); dancer (10 per cent); actress (8 per cent); and doctor (8 per cent). The pattern of preferences during the subjects' teenage years was somewhat different. Being a teacher remained the most popular preference (22 per cent), but it was doctor (15 per cent) and other medical occupations (17 per cent) that now replaced nursing as the second most common preferences. During their teens only 4 per cent wanted to be nurses. Animal-related jobs remained popular (11 per cent), but being a dancer or an actress both declined in popularity to two and three per cent respectively. The range of preferences increased substantially during the teens to include a large number of occupations that were preferred by just one individual.

Large group differences were found in the age at which the subjects decided to enter their present occupation. Those in manual male-dominated occupations typically made the decision to enter their occupations at a later age (mean age 27.9 years) than those in the other groups. Those in non-manual transitional occupations generally made the decision earlier (at a mean age of 16.7 years) than those in the other groups. The latter finding may be a result of the fact that many of the non-manual transitional occupations such as medicine and dentistry are particularly hard to enter following a decision during adulthood because of their specific entry requirements and protracted length of training.

When the ages at which the decision to enter the present occupation is made are plotted (see Figure 8.7), it is interesting to note that this variable peaks at ages 14, 17, 21 and 29.

Figure 8.7 Age when Subjects decided to enter Present Occupation



The final significant finding relating to occupational preferences is that those in the three male-dominated groups tended to choose male-dominated occupations as their ideal occupation, in contrast to those in female-dominated occupations who tended to choose gender-neutral or female-dominated occupations.

The findings with regard to other psychological variables from the interview are shown in Table 8.9.

Table 8.9 Other psychological variables from interview

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Ever had a role model ?	Chi squared	NS						
Perceived influence of luck	Kruskal-Wallis	NS						
Ever played down intelligence or ability ?	Chi squared	NS						
Any fears about success ?	Chi squared	NS						
Perceive self as a feminist ?	Kruskal-Wallis	10.5*						
Ever experienced a mental breakdown ?	Fisher					NS	.009*	NS

The groups did not differ in whether or not the subjects had had a role model. Interestingly only a relatively small proportion (34 per cent) reported ever having had a role model, the most popular type of model being female, real life role models. However many women, whilst not having a role model as such, did feel that they had been influenced by seeing women in traditionally male roles.

*It was just quite clear to me that it was possible for me to do it [cabinetmaking] even though I was a woman. I had seen other women do it, not that I knew them, but I had heard of them, so that gave me courage as well. I knew I could do it, why shouldn't I? (8: Cabinetmaker)*

The groups also did not differ in the extent to which women felt that luck or chance had influenced their occupational decisions. Overall 66 per cent felt that luck had played some part in their occupational choices and decisions.

*I feel that me being an R.G.N. [Registered General Nurse] is a matter of pot luck. I decided to be a nurse as an almost snap decision. I feel I could have made the decision to go to university or to do any other job as impulsively as I did when I applied for nurse training... I feel I have reached my present position by making one impulsive decision after another, whilst never really knowing what I want to do. (73: Midwife)*

Another smaller group of subjects (20 per cent) took the opposite view and emphasised hard work and planning rather than luck.

*(Do you think luck or chance has played a part in your career?)  
No, definitely not. I've always been very directed. (50: Police inspector)*

*Its funny, some people say to me "Haven't you been lucky, you've fallen on your feet". I just think its been dammed hard work. (81: Recruitment consultant)*

A third group (13 per cent<sup>2</sup>) saw luck as something you create yourself.

*I think we create luck sometimes. I think luck is a matter of taking up opportunities when they arise. Its just what you make of them... I think, yes, I've been quite lucky, but also I believe I've said yes to luck when it came. (14: Car mechanic)*

*Luck is a combination of opportunity and preparation. (45: Management accountant)*

No group differences were found with regard to playing down intelligence or ability. The majority (55 per cent) of the women admitting playing down their

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<sup>2</sup> Where percentages do not add up to 100, this is due to figures having been rounded.

abilities at some point in their lives. Many used this as a conscious strategy at work.

*I usually try to look less intelligent. You find out more. (44: Chartered accountant)*

Some did it to avoid negative reactions from men, particularly in social situations.

*I can remember when I was younger when people asked me what I did, and men in particular can't cope with it at all. I can remember one bloke saying to me "Blimey, you must be intelligent", and then he more or less walked off because he couldn't cope with it. (58: Solicitor - matrimonial)*

Others did it to level out status differences and to ensure smooth relationships.

*[I have played down my abilities] mainly to people who may feel overawed by people having a lot of academic qualifications. (79: Personnel officer)*

For some this depreciation of their intelligence and abilities grew from a deep lack of confidence in themselves.

The groups also did not differ in their fears of success. In fact 70 per cent of the sample felt that they had no worries about success. Of those that did have some worries around success some worried about the reactions of coworkers.

*I do worry about my colleagues' reaction. They resort to personal attacks which eventually upset me. (46: Sales executive)*

Some worried about their boyfriend's or husband's reaction to their success.

*Its funny, my husband wouldn't be happy if I earned more money than him, which to me is amazing. Money to him means that he's more important. I don't think he'd be very comfortable. (85: Clerical worker)*

In addition seven per cent reported that they did not want to be particularly successful because they did not want to incur the personal costs that success often entails.

*I don't think I'd ever be that successful because I think to be successful you've got to give yourself entirely to one aspect of your life, and I don't want to do that. I wouldn't be prepared to do that. (89: Research officer)*



The groups did differ, however, in the extent to which they described themselves as feminists. Visual inspection of the relevant graph reveals that it is the women in manual male-dominated occupations who are most likely to describe themselves as feminists.

The qualitative data clearly reveals that whether or not a woman describes herself as a feminist is not a straightforward matter of attitudes, but rather an ideological category that is being continually renegotiated. Something that was particularly salient when women were asked whether they were feminists, was the fact that a large number needed to qualify their response.

*I want to see equal rights for women, but I'm not, what's the word, I'm not an extremist in any way. But I suppose I'm basically a feminist.* (100: Probation officer)

The terms women used when they disassociated themselves from feminism, or certain types of feminism, fell into three categories: firstly militant / extremist / radical / campaigning / strident / hardline; secondly separatist / anti-men / man-hating; and thirdly negative stereotypes implying not wanting to be a woman such as masculine / aggressive / dungarees / short hair / unattractive. Of those who described themselves as feminists, some felt it was the only logical position to take, and for others it was rooted in humanitarian, libertarian beliefs. Those who did not perceive themselves to be feminists described being concerned with men as well as women, feeling that women are different from men, enjoying "domestic" pursuits and lifestyles, believing that women should not receive any special help, or that there was no need for feminism since equal opportunities already exist. It was also clear that being a feminist is a contested category.

*My husband thinks I'm a feminist, but I'm not.* (83: Public relations consultant)

*I suppose I am a feminist, but I'm not militant, not very often, it depends what's said [looks at husband]. He doesn't agree with me.* (60: Solicitor - local government)

The quantitative data cannot tell us whether feminist attitudes play a part in

determining the type of occupation entered or whether it is the experience of working in a male-dominated occupation that alters sex-role attitudes. However the qualitative data suggests that both of these processes are occurring. Some women clearly felt that their feminism predated their entry into male-dominated employment.

*If I didn't see things in those [feminist] terms I think I would have been more inclined to accept either being a housewife or doing a feminine stereotype job. I think this is why I found that I couldn't do those kinds of jobs, because I hated being deferential to men. I just wondered why the hell I was doing the typist job rather than the jobs the men were doing. (6: Carpenter)*

For others, however, it was their experiences of working in male-dominated occupations that played an important role in cultivating feminist attitudes.

*I'm becoming a feminist because I've been horrified at the attitudes I've found. I think that working women should be treated with equal respect. Men still seem to think that we should be at home with a rabble of kids. (46: Sales executive)*

There is an interesting finding that the women in manual male-dominated occupations were significantly more likely to report having experienced some form of mental breakdown. Indeed 28 per cent of this group described having a breakdown. The mental breakdowns invariably preceded their entry into a manual male-dominated occupation.

Turning now to the psychological characteristics measured by questionnaire. The work value that was rated the most important overall was "A job where the work itself is interesting", followed by "A job which is challenging and gives you a sense of achievement" and "A job where the people you work with are friendly and likable". The three work values rated as least important were "A job you could do part-time", "A job which would fit in well with childcare" and "A job that isn't high pressure or stressful". Of the 22 work values measured, significant differences between groups were found for five work values. See Table 8.10.

Table 8.10 Work values

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Job security	ANOVA	3.59*	2.73**	NS		3.09**		
Likable coworkers	Kruskal-Wallis	NS						
High pay	ANOVA	NS						
Avoidance of stress/ high pressure	Kruskal-Wallis	18.5***						
Freedom to plan own work	Kruskal-Wallis	NS						
Benefitting society	ANOVA	NS						
Convenient hours	ANOVA	NS						
Pleasant working conditions	ANOVA	NS						
Supervising others	ANOVA	2.84*	2.40*	NS		2.87**		
Avoidance of extra work in own time	Kruskal-Wallis	NS						
Helping others	ANOVA	NS						
Promotion prospects	ANOVA	9.60***	2.98**	NS		4.49***		
Opportunities for part-time work	Kruskal-Wallis	NS						
High status / respect	ANOVA	4.09**	3.20**	NS		3.12**		
Proximity to home	ANOVA	NS						
Variety	Kruskal-Wallis	NS						
Challenge / sense of achievement	Kruskal-Wallis	NS						
Easily combined with childcare	Kruskal-Wallis	NS						
Using one's special abilities	Kruskal-Wallis	NS						
Working closely with others	ANOVA	NS						
Interesting work	Kruskal-Wallis	NS						

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For four of the work values which show significant differences over groups, the planned comparisons and inspection of relevant graphs reveal that the main difference lies with the manual male-dominated group. The women in this group place a low value on job security, supervising others, and promotion prospects, and place a high value on avoiding stress and high pressure. For the fifth work value showing significant group differences, the desire for high status and respect, the most significant planned comparison is C1, the linear trend across groups, with those in the non-manual transitional and non-manual female-dominated groups placing a greater value on this than those in the other two groups.

Hypothesis H9, that women in male-dominated occupations would place more importance on the work values, pay and promotion, than those in female-dominated occupations was not confirmed.

The other psychological variables measured by questionnaire are the manifest needs : need for achievement, need for affiliation, need for autonomy and need for dominance. The overall means for these four variables were 5.1, 3.9, 4.2, and 4.7. These figures can be compared to norms derived by the authors of the Manifest Needs Questionnaire (Steers & Braunstein, 1976) and based on a sample of 328 subjects employed in various levels of a major metropolitan hospital, which were 4.1, 4.1, 3.4, and 3.8 respectively. It is evident that the women in the present sample had greater needs for achievement, autonomy and dominance than those in Steers and Braunstein's less selective sample.

The groups did not differ on need for affiliation, nor need for autonomy. There were significant group differences, however, for need for achievement and need for dominance. In both these instances, the overall group difference is largely accounted for by the difference between the manual male-dominated group and

the three non-manual groups. The women in manual male-dominated occupations had low needs for achievement and dominance compared to the women in non-manual occupations.

Table 8.11 Manifest needs

<i>Variety</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Need for achievement	ANOVA	4.59**	NS	NS	2.73**			
Need for affiliation	ANOVA	NS						
Need for autonomy	ANOVA	NS						
Need for dominance	ANOVA	7.04***	3.31***	NS	3.64***			

The women in the female-dominated group did not differ from those in the other male-dominated groups with regard to need for autonomy, achievement, nor affiliation. Hence the hypotheses H10, H11 and H12 must be rejected.

## Domestic situation

Domestic variables, either actual or anticipated, appear to have little importance in determining the type of occupation entered. See Table 8.12.

Table 8.12 Domestic variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Single, cohabiting or married	Chi squared	NS						
Ever been divorced ?	Fisher					NS	NS	NS
Age of marriage	ANOVA	NS						
Heterosexual or lesbian/sexual orientation unclear	Chi squared	13.5**				NS	13.4***	NS

Extent to which housework is shared	Kruskal-Wallis	NS			
Ever experienced restricted mobility	Chi squared	NS			
Mobile at present ?	Kruskal-Wallis	NS			
Has children ?	Fisher		NS	NS	NS
Number of roles (employee, wife, mother)	Kruskal-Wallis	NS			
Number of children	ANOVA	NS			
Age of youngest child (pre-school/primary or secondary/adult)	Fisher		NS	NS	.023*
Age when first child was born	ANOVA	NS			
Length of childcare break	Kruskal-Wallis	NS			
Length of time in part-time work following child-bearing	Kruskal-Wallis	8.89*			
Considered childcare when making occupational preferences and decisions	Fisher		NS	NS	NS
Is family complete ?	Kruskal-Wallis	NS			
Desire to have children	Kruskal-Wallis	NS			
Anticipated age for birth of first child	Kruskal-Wallis	NS			
Anticipated number of children	Kruskal-Wallis	NS			
Length of anticipated childcare break	Kruskal-Wallis	NS			
Anticipated involvement of partner in childcare	Kruskal-Wallis	NS			

---

Overall 56 per cent of the sample were single, 34 per cent were married, and 10 per cent were cohabiting (with a man).

Hypothesis H13, that women in female-dominated occupations are more likely to be married than those in male-dominated occupations, is not confirmed. Nor are there any group differences in age of marriage or divorce rates. Perhaps not surprisingly those who divorced had married at an earlier age than those who did not ( $t = 2.87, p < 0.01$ ).

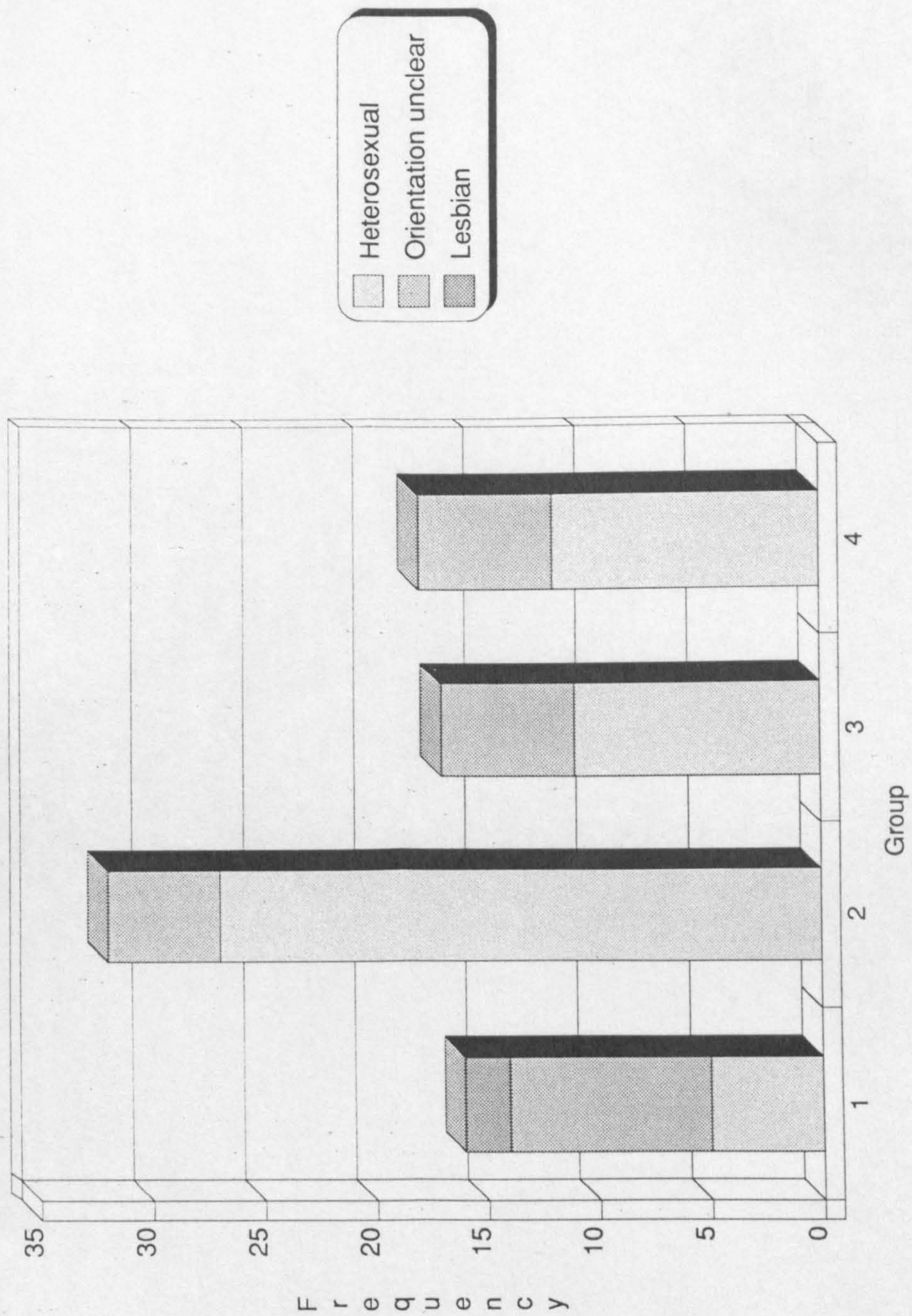
There is, however, an interesting result pertaining to sexual orientation. Although subjects were not directly asked about their sexual orientation it was possible to classify them as heterosexual (if they were married, cohabiting with a man, or mentioned a current or recent boyfriend); lesbian (if they stated that they were); or as sexual orientation unclear (if they were not married, nor cohabiting with a man, and made no mention of a current or recent boyfriend). The women in manual male-dominated occupations were very much more likely to have an unclear sexual orientation or to be lesbian than those in the other three groups. See figure 8.8.

Whilst 24 per cent of married subjects felt that their marriage had had no effect on their worklife, 37 per cent felt it had had a negative effect, 15 per cent a positive effect, and 10 both a positive and a negative effect. Positive effects include encouragement, financial support and economic responsibilities.

*I think my husband is extremely supportive. He has always been very interested in what I have done which is very encouraging. He encouraged me to go back to college. So I would say it has had a positive rather than a negative effect. (90: Jewellery designer)*

*[Being married] has made me determined to change careers, as I have the financial security of my husband's wage. (70: Teacher - primary school)*

Figure 8.8  
Sexual Orientation by Group





*I never set out to be a career woman, and being married and needing to help to pay the mortgage has been my prime motivating drive... Being married has made me do things for the sake of the family really, because my husband hasn't been as successful in his career as I have unfortunately, so I've been forced to go on and do things, but then found I really quite enjoy it. (65: Manager in adult education)*

The negative effects of marriage largely focus on lack of support or opposition from spouses. Marriage can also bring financial constraints that adversely affect a woman's career.

*If I hadn't had to support my husband through college I might have seriously considered finishing off the architectural training and getting a proper degree myself, but there was no way we could finance both of us being students, so marriage has had quite a big effect I suppose. (100: Interior designer)*

Some women also felt that their husband's job took priority and subsequently suppressed their own occupational needs to some degree.

*I suppose we've always considered my husband's career more important than mine. (21: Electronics engineer)*

An additional problem for some women is that their husband's job involves some degree of spouse participation which may limit the woman's occupational development.

*[My husband was a clergyman so] I had to do a lot of entertaining, bringing in cups of tea and coffee etc.. You're expected to visit the sick and elderly as well. (34: Computer programmer/analyst)*

For women working in male-dominated occupations which were designed with a male breadwinner and non-employed wife in mind, it is not having a "wife" that is problematic.

*For male builders it is a totally different set up because nine out of ten of them have a nice wife at home who answers the telephone and does the office work, types the estimates and that sort of thing. (11: Builder)*

Some of the negative effects of marriage relates to geographical mobility problems. Forty five per cent of the women in the sample had experienced some form of restricted mobility at some time, and only 40 per cent felt completely unrestricted at present. There is a significant negative relationship

between current geographical mobility and marital status (single, cohabiting or married) ( $\rho = -0.40, p < 0.001$ ). However marriage is not the only constraint on mobility, since 20 per cent of the single women declared themselves geographically immobile. The qualitative data reveal that the other factors that limit geographical mobility include not wanting to disrupt children's education; the need to be close to elderly parents; not wanting the upheaval and initial isolation of moving to a new area; housing needs precluding a move; and personal preferences for living in particular parts of the country. Some women attempted to circumvent mobility problems by commuting long distances, and one lived apart from her husband for two years while she was posted overseas. However such solutions are not without their costs.

*It was a big strain and we'd have great doubts about whether we'd do it again. It creates a lot of problems. (67: Manager - international banking)*

It is interesting to note that none of the subjects felt that housework had any effect on their work life. However one mentioned that it prevented her from being able to do overtime, and another felt it was a contributory factor in her decision to remain in part-time employment. The finding that women largely felt that housework had a negligible effect on their worklife may be due, in part, to the fact that 20 per cent of the women paid someone to carry out some of the housework. In addition some had a large number of labour saving devices.

*I've always had a microwave, I would not be without a microwave. We've got a fridge freezer, washing machine, tumble dryer, dishwasher... I can just come home, open the freezer, whack it in the microwave and I know I'm going to be fed. (63: Retail manager)*

Twenty five per cent mentioned lowering their housework standards as a result of their work lives.

*I do tend to prepare simpler meals. (94: Audio-visual programme maker)*

*When I was a houseman I had a flat and it was a tip, it was awful, you know. I think the dishes actually got blue mould on them because I was so tired I didn't do them. (54: Doctor - paediatrician)*

A further 8 per cent mentioned that performing housework in addition to their paid work caused them to suffer some degree of personal stress and tiredness. Others mentioned that their social life suffered as a result of housework demands.

*When I was married I didn't like the fact that I used to seem to spend all weekend doing housework. He [husband] never helped, well he would potter around occasionally. And I think I resented the fact that I worked all week and then spent all weekend doing housework, instead of, you know, relaxing and enjoying myself. (99: Probation officer)*

Of those who were married or cohabiting, more women reported doing more housework than their partners, than reported it was shared equally. Only three women stated that their partners did the majority of the housework.

Turning now to motherhood rather than marriage, overall 29 per cent of the sample were mothers.

Hypothesis H14, that women in male-dominated jobs would have or anticipate having fewer children, is not upheld. Those in manual and non-manual male-dominated occupations tended to have younger children than those in non-manual transitional and female-dominated occupations. However the significance of this is unclear due to the comparatively small number of mothers in each group.

The majority of women (76 per cent) did not consider how well different occupations would fit in with having children when they were making their occupational choices. However the expectation that one would get married and have children appeared to be a powerful force for some women, which gave rise to a lack of occupational planning and foresight.

*I had no interest in a career, a career just meant nothing to me at that time. I was going to be a secretary, then get married and live happily ever after. (62: Legal executive)*

Hypothesis H15, that women in female-dominated occupations took or anticipate taking less time out of employment for childbearing and rearing, is not supported. However it is interesting to note the significant finding of a difference between groups in the amount of time spent in part-time employment following a childcare break. Inspection of the relevant graph reveals that it is the women in non-manual female-dominated occupations who spent the most time in part-time work after childbearing. It is unlikely, however, that the desire for work that could be done part-time was instrumental in women's choice of a female-dominated occupation, since the women in the non-manual female-dominated group were no more likely to have considered childcare when making their occupational choices, and did not place a greater value on having a job which fits in well with childcare or which can be done part-time than those in the other groups. However, the alternative interpretation, that female-dominated occupations offer more opportunities for part-time work, opportunities which women took up having found themselves in this type of employment, is not tenable either, since the women in this group do not perceive their occupation to afford any greater opportunities for part-time working than do those in the other three groups (see below). It therefore seems likely that the finding is anomalous, due to the relatively small number of mothers in each group.

Four women in the sample mentioned becoming pregnant accidentally, which invariably altered their occupational plans.

*I was going through some really strange times with my health and I went for testing and I was pregnant. I could have died. I could have died, because at that time I was like "Women can progress", you know "We don't have to be ruled by our ovaries", and I went and got pregnant. (40: Financial director)*

Over half of the mothers felt that having children had had some effect on their work life. These effects were both positive and negative. The financial responsibility of children can make women more career-oriented and can keep

them in remunerative employment.

*I would have stopped doing dentistry almost straight away if I hadn't have had children. I only continued because I needed to earn money... It has kept me in the profession in fact. (56: Dentist - general practice)*

The so-called baby-break can also have positive repercussions on employment.

*Before children my career was in a definite cul-de-sac, and I used the opportunity to re-qualify and move in a direction I wanted. (21: Electronics engineer)*

However, having children can sometimes have a devastating effect on a woman's career, especially when there is a lack of adequate and affordable childcare facilities.

*[Having children] totally clobbered my career... Every career decision had to be made on the basis of the children's welfare, so every decision I made was more or less a contingency decision : "What is the thing I can do for the most money with the least upset to the children. (72: Teacher - modern languages)*

Taking time out from employment to raise children can also be problematic when the woman is ready to return.

*After having children and being at home for ten years everywhere I went no one wanted to know me because I hadn't got any recent experience. The past didn't count. (87: Clerk-typist)*

A wide variety of childcare facilities were used, including nannies, au pairs, childminders, nurseries and relatives. In addition some women worked while their partner's looked after the children. The qualitative data revealed that the women in the present sample invariably found childcare provision somewhat lacking or problematic. The only ones who did not find this were those who had live-in help and those with relatives living close by who were able and willing to look after the children.

Finally, it should be noted that there were no differences between groups in the number of roles - paid worker, wife (or cohabitee), and mother (of dependent children) - the women had. Furthermore, the number of roles was not related

to job satisfaction (as measured by the visual analogue scale).

To conclude this chapter, a summary of the main differences between the groups is presented. See Table 8.13.

Table 8.13 Main findings relating to women's occupational choice and entry into male-dominated occupations

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**Women in manual male-dominated occupations :**

- had few traditionally female childhood hobbies or activities
- were less likely to have studied A levels
- were less likely to have a degree
- were more likely to have had a strong dislike of school
- went to less prestigious schools
- had had a greater number of previous occupations
- had experienced more unemployment
- decided to enter their present occupation at a late age
- were more likely to describe themselves as feminists
- were more likely to have had a mental breakdown
- attach little importance to job security, supervising others, and promotion prospects
- place a high value on avoiding stress and high pressure at work
- had low needs for achievement and needs for dominance
- were less obviously heterosexual

**Women in non-manual male-dominated occupations :**

- studied more traditionally male O level subjects
- studied more traditionally male A level subjects
- held more preferences for male-dominated occupations during their teens

**Women in non-manual transitional occupations :**

- had more male friends during childhood
- were more likely to have a degree
- went to more prestigious schools
- had less experience of unemployment
- held more preferences for male-dominated occupations during their teens
- decided to enter their present occupation at an early age
- place a high value on status and respect

**Women in non-manual female-dominated occupations :**

- studied fewer traditionally male O level subjects
- studied fewer traditionally male A level subjects
- are less likely to have a male-dominated occupation as their ideal occupation
- place a high value on status and respect

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## CHAPTER NINE

### Results II :

## Women's Experiences at Work

In this chapter results relating to women's experience of working in male-dominated occupations are presented. Firstly employment details and perceived job attributes are discussed. Next the results pertaining to job satisfaction are presented. Finally women's work experiences are examined with particular reference to relationships at work; the problems and advantages of being a woman in a male-dominated job; sex discrimination; and sexual harassment. For means, standard deviations and frequency data for the variables discussed in this chapter by groups one to four, refer to Appendix J.

### Employment

Overall ten per cent of the sample were currently working part-time. Sixteen per cent were self-employed (including those who worked freelance or were partners in their own businesses), self-employment being more common among those in manual male-dominated occupations than those in the other three groups. See Table 9.1

Table 9.1 Employment variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Full-time or part-time work	Fisher					NS	NS	NS
Employed or self-employed	Fisher					NS	.007**	NS
Length of time in present occupation	Kruskal-Wallis	10.1*						
Length of time with present employer	Kruskal-Wallis	NS						
Length of time in present position	Kruskal-Wallis	NS						
Salary	Kruskal-Wallis	22.5***						

The women in manual male-dominated occupations had been in their occupations for the shortest amount of time. This group of women also had the lowest salaries. Of the three non-manual groups, the transitional group earned the most and the female-dominated group earned the least. Salary was positively correlated with length of time in occupation ( $r = 0.50, p < 0.001$ ), but further analysis of salary by group when controlling for the effect of length of time in occupation revealed that this correlation could not account for all the differences between groups in salary.

## Perceived Job Attributes

The results from the Perceived Job Attributes Questionnaire are shown in Table 9.2.



Table 9.2 Perceived job attributes

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Job security	Kruskal-Wallis	8.66*						
Likable coworkers	ANOVA	NS						
High pay	ANOVA	3.47*	NS	2.36**	NS			
Lack of stress/high pressure	Kruskal-Wallis	NS						
Planning own work	Kruskal-Wallis	NS						
Benefitting society	Kruskal-Wallis	9.20*						
Convenient hours	Kruskal-Wallis	NS						
Pleasant working conditions	ANOVA	3.38*	2.86**	2.77*	2.28*			
Supervising others	Kruskal-Wallis	NS						
Lack of extra work to be done in own time	Kruskal-Wallis	NS						
Helping others	Kruskal-Wallis	14.4**						
Opportunities for promotion	ANOVA	NS						
Opportunity for part-time working	Kruskal-Wallis	13.2**						
High status / respect	ANOVA	5.72	NS	NS	2.44**			
Proximity to home	Kruskal-Wallis	NS						
Variety	Kruskal-Wallis	NS						
Challenging / sense of achievement	Kruskal-Wallis	NS						
Easily combined with childcare	Kruskal-Wallis	NS						
Using own special abilities	Kruskal-Wallis	NS						
Working closely with others	Kruskal-Wallis	NS						
Interesting work	Kruskal-Wallis	NS						

The groups differed with regard to seven of the perceived job attributes. Examination of the planned comparisons and inspection of the relevant graphs reveals the following. The women in manual male-dominated work perceived their jobs to have good opportunities for part-time work, but low job security. Those in non-manual male-dominated occupations rated their jobs as not benefitting society and not involving people, compared to those in the other three groups. The women in non-manual transitional occupations perceived their jobs to be highly respected. Those in non-manual female-dominated occupations felt their jobs were poorly paid. Finally there was a significant positive linear trend from group one (manual male-dominated) to group four (non-manual female-dominated) with regard to the perceived pleasantness of working conditions.

## Job satisfaction

One direct measure of job satisfaction (the visual analogue scale) was used in the present study, but in addition the interview data yielded four indirect measures of job satisfaction. See Table 9.3. Overall there was quite a high level of job satisfaction, the mean rating being 8.3 (s.d. = 1.9), out of a possible maximum rating of 11.

Table 9.3 Job satisfaction variables

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Job satisfaction (visual analogue scale)	ANOVA	NS						
Any regrets about entering occupation ?	Chi squared	NS						

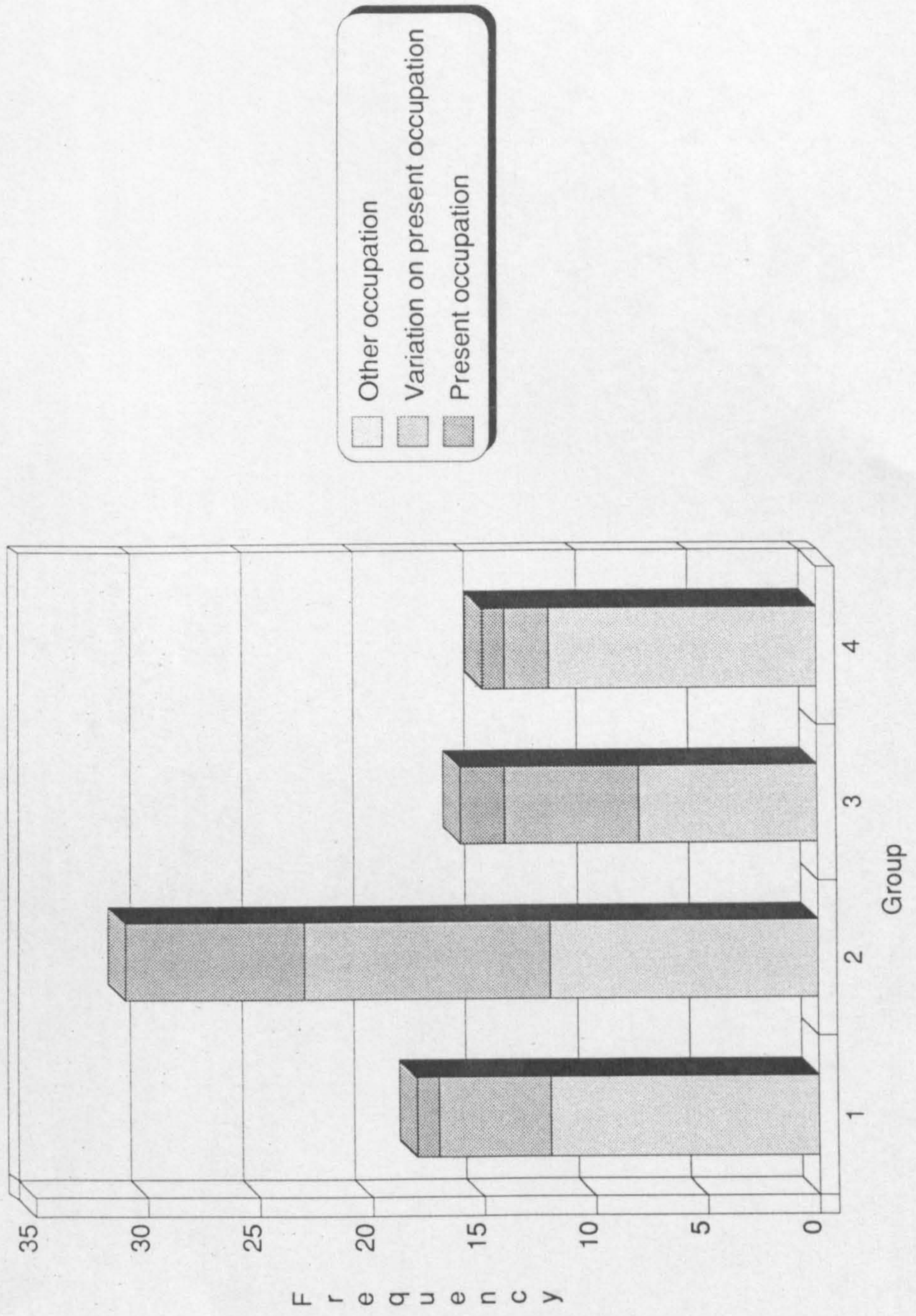
Advise/encourage other women to enter occupation ?	Kruskal-Wallis	NS
Intend to stay in occupation ?	Chi squared	NS
Stated that present occupation was ideal occupation ?	Kruskal-Wallis	8.85*

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The women in groups one to four did not differ on any of the job satisfaction measures except for one. The women in the non-manual male-dominated group were more likely to state that their present occupation was their ideal occupation. See Figure 9.1. The visual analogue measure of job satisfaction was significantly related to not having any regrets about entering one's occupation ( $t = 3.54, p < 0.01$ ), to whether one intends to stay in one's present occupation ( $\rho = 0.26, p < 0.01$ ), and to whether one's present occupation is one's ideal occupation ( $\rho = 0.24, p < 0.05$ ). It was unrelated, however, to whether one would advise other women to enter one's occupation. The qualitative data suggest that this may be because whether a woman would advise other women to enter their occupation depends not only on their own satisfaction in that occupation, but also on the opportunities the occupation offers to women.

*I took a 17 year old woman I know round out factory a few months ago... She's thinking of going into the RAF, which horrified me, or into industry and I very strongly advised her to go into industry, and said "Oh yes, its wonderful and there's all these opportunities and women can do so well etc. etc.". And the very next day a friend of mine was treated very badly by my old firm, in a totally, well it had to be sex discrimination. She'd been promised a promotion and a man was promoted over her who I know very well and from my experience of him, in comparison with her, he's totally incompetent. And I suddenly thought I've just told this woman how wonderful it can be and then something like that happened and you think "Oh no, have I done the right thing ?" But yes, I would advise women to go into industry, but only that they've got to realise how incredibly hard it is, and how tough you have to be. (27: Production manager)*

Figure 9.1 Subjects stating Present Occupation as Ideal Occupation



Overall 21 per cent of women gave this type of qualified response. However 70 per cent appeared to have no qualms about recommending their occupation to other women, which again reflects a high degree of job satisfaction.

There was no relationship between job satisfaction (as measured by the visual analogue scale) and length of time in occupation, in present position or with employer. However when the effect of group was controlled for and only those in non-manual female-dominated occupations are considered, then there is a significant positive correlation between job satisfaction and length of time in occupation ( $r = 0.41, p < 0.05$ ).

When Subjects were asked "What things do you like about your job ?", they gave a variety of responses. The most frequently mentioned source of satisfaction cited by those in all three non-manual groups was working with and meeting people. For those in manual male-dominated occupations, it was the autonomy they have in their work that was mentioned most often as a source of job satisfaction. However, overall there were few differences between the groups in the sources of their satisfaction. The women in non-manual female-dominated occupations were more likely to mention that they enjoyed the responsibility that their jobs entailed than those in the three male-dominated groups. In addition, those in manual male-dominated occupations were more likely to have mentioned seeing the end product of their labours, and less likely to have mentioned variety as sources of job satisfaction than those in the other three groups. See Table 9.4.

Table 9.4 Sources of satisfaction

<i>Variable</i>	<i>Test done</i>	<i>Overall C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Working with people	Chi squared	NS					
Likable coworkers	Chi squared	NS					
Likable boss	Fisher				NS	NS	NS
Supervising others	Fisher				NS	NS	NS
Helping others	Fisher				NS	NS	NS
Autonomy	Chi squared	NS					
Responsibility	Fisher				.045*	NS	NS
Challenging nature of work	Chi squared	NS					
Interesting work	Fisher				NS	NS	NS
Intellectual stimulation	Fisher				NS	NS	NS
Physical nature of work	Fisher				NS	NS	NS
Variety	Fisher				NS	.018*	NS
Unpredictable nature of work	Fisher				NS	NS	NS
Fast pace of work / high pressure	Fisher				NS	NS	NS
Seeing the end product	Fisher				NS	.018*	NS
Variety of locations	Fisher				NS	NS	NS
Pay	Fisher				NS	NS	NS

As far as sources of dissatisfaction are concerned, the most common cause for complaint amongst the women in the three non-manual groups was particular boring or difficult parts of their job, whereas for those in manual male-dominated occupations it was the physically demanding nature of their work.

Again there were few differences between the groups in the sources of their dissatisfaction. However the women in manual male-dominated occupations were more likely to mention disliking their lack of job security (despite rating job security as less important to them than those in the other groups); workplace hazards such as dust and fumes; and the physically demanding nature of their work than those in the three non-manual groups. In fact lack of job security, workplace hazards and physically demanding work were not mentioned by any of the women in non-manual occupations. See Table 9.5.

Table 9.5 Sources of dissatisfaction

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Lack of contact with people	Fisher					NS	NS	NS
Coworkers	Fisher					NS	NS	NS
Sexism	Fisher					NS	NS	NS
Lack of other women at work	Fisher					NS	NS	NS
Supervisor/boss	Fisher					NS	NS	NS
Lack of confidence	Fisher					NS	NS	NS
Lack of time to do job to one's own satisfaction	Fisher					NS	NS	NS
Boring or difficult aspects of job	Chi squared	NS						
Organisational problems	Fisher					NS	NS	NS
Long hours	Fisher					NS	NS	NS
Lack of job security	Fisher					NS	.042*	NS
Poor promotion prospects	Fisher					NS	NS	NS
Low pay	Fisher					NS	NS	NS
Journey to work	Fisher					NS	NS	NS

Working outside in bad weather	Fisher	NS	NS	NS
Physical working conditions	Fisher	NS	NS	NS
Workplace hazards	Fisher	NS	.042*	NS
Physically demanding nature of work	Fisher	NS	.000***	NS

## Relationships at work

Perhaps not surprisingly the women in non-manual female-dominated occupations were significantly less likely to have a male boss / supervisor, male coworkers or male subordinates. See Table 9.6.

Table 9.6 Relationships at work

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Gender of boss	Fisher					.002*	NS	NS
Quality of relationship with boss	Kruskal-Wallis	NS						
Gender of coworkers	Kruskal-Wallis	26.3***						
Quality of relationship with male coworkers	Kruskal-Wallis	NS						
Gender of subordinates	Kruskal-Wallis	8.25*						
Reaction of male subordinates to having a woman boss	Kruskal-Wallis	NS						
Reaction of female subordinates to having a woman boss	Kruskal-Wallis	NS						
Has anyone in occupation been particularly helpful ?	Chi squared	NS						



There were no group differences in the perceived quality of the relationship between Subjects and their boss / supervisor. The majority (57 per cent) felt that their boss treated them no differently than he / she would a man doing the same job. Twenty one per cent felt that they were treated in a negative way by their boss / supervisor because they were a woman; 16 per cent felt treated more positively; and 5 per cent perceived themselves to be treated more positively in some ways and more negatively in others.

It is interesting to note that of the 71 per cent of women who felt that someone had been particularly helpful to them at some point in their work life, the person who had been helpful was most often (in 58 per cent of cases) a male superior. Although the Subject's were typically reluctant to describe these male superiors as mentors, it was apparent that many of these superiors had been especially supportive.

*When I returned to work after having the baby the man who employed me was very helpful and I consider the total success of my career from then on is totally due to him. (28: Factory manager)*

There were no differences between the four groups in the quality of their relationships with their coworkers. This is not to say, however, that such relationships were uniformly unproblematic. Overall 18 per cent of women felt that their relationships with their male coworkers was poor.

*There were two car mechanics who were very antagonistic to me. It was very hard, they were very very hostile... They were really nasty and tried to sabotage my work. (14: Car mechanic)*

A further 26 per cent described these relationships as mixed. More positively, however, over half reported having good relationships with their male coworkers.

*I think they (male coworkers) are great, you know. They don't make fun of me or treat me really any different. They are very courteous though, gentleman-like. What I mean is they help each other, we all help each other, they're just sort of really nice like that. I mean I'm not used to men being nice to me, I suppose. They're like friends to me. I consider them my friends, I don't know if I'm their friend, but to me they're my friends. Its great. (3: Painter & decorator)*

The groups did not differ in the perceived reactions of male and female subordinates to having a woman in charge of them.

The interview also yielded data on the reactions of clients and others outside the organisation to finding a woman in a male-dominated job. Twenty one per cent reported that it their gender made no difference to clients; 37 per cent felt that clients reacted positively; 15 negatively; and 27 both positively and negatively. Of those who found that clients reacted negatively, this reaction was typically confined to the early period of contact with the client only.

## **Problems of being a woman in a male-dominated occupation**

When those in male-dominated occupations were asked if they had experienced any problems at work due to being a woman the groups did not differ in the proportion who answered affirmatively. The problems mentioned were many and varied.

The problem that was most commonly mentioned by the women in manual male-dominated occupations was being viewed in terms of negative stereotypes about women, the most pervasive stereotype being that women are incompetent.

*I just feel I have to prove myself with men really because I don't think they expect you to be able to do it, so you have to prove all the time that you can. (5: Painter & decorator)*

For those in non-manual male-dominated occupations it was *male* modes of behaviour that were the most common problem.

*I have done some contracts where it has been abysmal, I've just felt I've been with a bunch of school boys who've made my life miserable to the extent that I didn't feel I could do a very good job. (34: Computer programmer/analyst)*

The problem most frequently mentioned by those in non-manual transitional occupations was being mistaken for more junior personnel such as secretaries

or nurses.

*When I was in hospital you can completely examine somebody and then they ask you when the doctor's coming. You're stitching somebody up, and halfway through I'll hand over to a male nurse and say "Can you finish this for me please ?", and they'll turn round and say "Is the doctor taking over now ?". (54: Doctor - paediatrician)*

However, the only significant difference between groups one to three in the problems they mentioned was that those in non-manual work were more likely to mention having to be better than a man than the women in the manual male-dominated group. See Table 9.7.

Table 9.7 Problems of being a woman in a male-dominated occupation

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Experienced any problems ?	Fisher						NS	NS
Having to be better than a man	Fisher						.011*	NS
People are watching to see if mistakes are made	Fisher						NS	NS
Being given less responsibility	Fisher						NS	NS
Being more closely supervised	Fisher						NS	NS
Not being offered overtime	Fisher						NS	NS
Men at work feeling threatened	Fisher						NS	NS
Being mistaken for a secretary / junior personnel	Fisher						NS	NS
Being seen in terms of negative stereotypes about women	Fisher						NS	NS

Behaviour that is acceptable in a man not being accepted in a woman	Fisher		NS	NS
Being or feeling excluded	Fisher		NS	NS
<i>Male</i> modes of behaviour	Chi squared	NS		
Practical problems e.g. with clothing, toilets	Fisher		NS	NS
Physical problems	Fisher		NS	NS

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## Advantages of being a woman in a male-dominated occupation

When the women in the male-dominated occupations were asked if they saw any advantages to being a woman, no differences between those in groups one to three were found in the proportion who did perceive some such advantage. A wide range of advantages were mentioned. See Table 9.8.

Table 9.8 Advantages of being a woman in a male-dominated occupation

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Perceive any advantages ?	Chi squared	NS						
Visibility	Fisher						.011*	NS
Sexual interest	Fisher						.034*	NS
Men are more willing to help	Fisher						NS	NS
It is easier to ask for help	Fisher						NS	NS
Positive <i>female</i> attributes	Fisher						.044*	.021*

Women's preference for a female worker	Fisher	.006**	NS
Treated more politely	Fisher	NS	NS
Treated more leniently	Fisher	NS	NS

---

The advantage most frequently mentioned by the women in manual male-dominated occupations was that women tend to prefer a female worker.

*I know women much prefer to have women. A lot of people have had trouble with painters and decorators, plus they don't really feel they can talk to a man. (5: Painter & decorator)*

For those in non-manual male-dominated occupations visibility was the most commonly mentioned advantage.

*It has its good sides because when we have conferences there'll be a couple of company directors and they all sit at the top table at dinner. Now everybody knows who I am because I'm the only woman, but they can't remember everybody else's name, so they'll often ask me to come and sit with them... so you get the ear of quite senior people which is a distinct advantage over being A.N. Other man in a grey suit. (35: Information systems manager)*

Those in the non-manual transitional group perceived their main advantage to be their possession of positive *female* attributes.

*The whole thing demands a degree of sensitivity, common sense and resilience, all things I think women have over men. Most men I know who deal with matrimonial matters are more aggressive and treat the whole thing as a battle, whereas I try to find a way round the problem by negotiating and arbitrating... It also demands great attention to detail, with very distinct procedural steps and I find women are better at this. (61: Solicitor - matrimonial)*

The significant differences between the groups are that those in manual male-dominated occupations are less likely to mention visibility or sexual interest as advantages of being a woman, and are more likely to mention women's preference for a female worker, and that those in the non-manual transitional group are more likely to mention the advantage of positive *female* attributes.

## Sex discrimination

When the Subjects were asked whether they had ever been discriminated against, four per cent believed that they had possibly or definitely experienced sex discrimination with regard to training.

*[I tried to get on a TOPS carpentry course and] they gave us this little test to do. I was the only female there. I finished the test, and what I did, it wasn't perfect, but it was OK, you know... The teacher came over and just ticked the poor poor poor poor poor box without really looking at what I'd done or talking to me at all and I could tell from his attitude that he didn't want a female in his class... Anyway there was a man who was standing next to me when he was doing the test, he did a really terrible joint and I thought well he's definitely failed. I went in and I interviewed before him, and they told me you can't get onto this course because you're aptitude is poor according to the teacher. Anyway I waited for the other bloke to come out of the interview and I was ready to commiserate with him because I thought "Poor soul", you know, and he just came out beaming, telling me that he was starting the course in three weeks or something. I mean I just couldn't believe it. (32: Carpentry tutor)*

Thirty five per cent believed that they had possibly or definitely experienced sex discrimination in selection (in most cases after the passing of the Sex Discrimination Act).

*I applied for a job, it was in a warehouse, and the notice said men or women. They made me rush down from the job centre to the interview, and when I got there they told me they only wanted men. When they were talking to the woman at the job centre they told her they didn't mind men or women, when I got down there they told me outright they wanted men. (3: Painter & decorator)*

Sixty two per cent reported having been asked questions about their relationships or domestic situation at selection interviews.

*The questions I've been asked about family plans are endless and too numerous to mention. I was asked these questions in every interview, even before I'd been asked about my skills in many instances. Even the Council who said in their literature "Equal opportunities" grilled me about my family plans. (46: Sales executive)*

However, a quarter of women who had been asked such questions said they did not object to them.

*Its never bothered me. From their point of view its a very reasonable question because they're going to train a woman, who's say a young woman of 25, are they going to spend two years training her only to find that she's got married, got pregnant and gives it up ?. And they've spent time, money, paying her, training her and she's likely to stop work and have babies. (29: Chartered surveyor)*

Twenty one per cent felt that they had possibly or definitely been discriminated against on the grounds of gender with regard to promotion.

*If I were male, with my present qualifications, experience and everything else, I would certainly be a Head of a much bigger school than I am now. (69: Headteacher - primary school)*

Other forms of discrimination reported include unequal pay, being put on a lower grade, and being sacked in a situation where a man probably wouldn't have been sacked. A small number of women described receiving positive discrimination.

There were no significant differences between groups one to four in the extent to which they had experienced sex discrimination. See Table 9.9.

Table 9.9 Sex discrimination

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Experienced discrimination in training ?	Kruskal-Wallis	NS						
Experienced discrimination in selection ?	Kruskal-Wallis	NS						
Ever been asked relationship/domestic questions at job interviews ?	Fisher					NS	NS	NS

It was evident from the qualitative data that sex discrimination was not the only form of discrimination perceived to be in operation. Some women felt discriminated against because of their age.

*It was very difficult to find Articles. Many firms were looking for bright 22, 23 year olds and I was 35... It was the combination of being an older woman, which I thought would be quite good really, I thought I sort of spelt respectability and all those things, but it was very difficult. I think that older men would have had quite a rough ride as well, but I suspect not as tough. (61: Solicitor - matrimonial)*

For others it was their nationality that they felt had put them at a disadvantage.

*Over here I sometimes wonder whether I've been discriminated against on the grounds of being Irish. (54: Doctor - paediatrician)*

Class discrimination was also felt to be operating in some cases.

*I found that most of the consultancy firms were recruiting people of a particular type that I didn't think I fitted into anyway somehow... people with a double-barrelled name, you know, the right sort of social connections. (41: Investment controller)*

Union involvement, appearance and religion were also mentioned as types of discrimination experienced.

## **Sexual harassment**

Like sex discrimination, sexual harassment was also relatively widespread. Thirty nine per cent had experienced sexual harassment in their present occupation, and 57 per cent had been sexually harassed at work at some point in their lives. These figures are roughly in line with existing research which suggests that between one third and one half of all women experience sexual harassment at work (see Chapter One).

Existing research suggests that whilst any woman can be the subject of sexual



harassment, those most likely to be sexually harassed are young, single women (Gutek *et al.*, 1980; Schneider, 1982; Tangri *et al.*, 1982; Lafontaine & Tredeau, 1986), divorced women (Gruber & Bjorn, 1982) and women who have been in their jobs for a short amount of time (Gruber & Bjorn, 1982). However, in the present research sexual harassment was not related to age, current marital status, being divorced, nor length of time in occupation.

The women in groups one to four did not differ with regard to whether they had ever been sexually harassed, nor with regard to whether they had been harassed in their present occupation. See Table 9.10.

Table 9.10 Sexual harassment

<i>Variable</i>	<i>Test done</i>	<i>Overall</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>
Ever been sexually harassed at work ?	Chi squared	NS						
Been sexually harassed in present occupation ?	Chi squared	NS						
Type of harassment								
Patronising touch	Fisher					NS	NS	NS
Sexual touches	Fisher					NS	NS	NS
Sexual comments	Fisher					NS	NS	NS
Sexual jokes	Fisher					NS	NS	NS
Propositions of sex	Fisher					NS	NS	NS
Other propositions	Fisher					NS	NS	NS
Indecent exposure	Fisher					NS	NS	NS
Who harasses ?								
Boss / superior	Fisher					NS	.000***	NS
Coworker	Fisher					NS	NS	NS
Client	Fisher					NS	NS	NS
Subordinate	Fisher					NS	NS	NS

Responses to harassment

Ignore it	Fisher	NS	NS	NS
Joke it off	Fisher	NS	NS	NS**
Send non-verbal signal	Fisher	.049*	NS	NS
Physical response	Fisher	NS	NS	NS
Calm verbal response	Fisher	NS	NS	NS
Angry verbal response	Fisher	NS	NS	NS
Made official complaint	Fisher	NS	NS	NS

---

The most common type of harassment was sexual comments.

*There was one meeting that I went to where they made a joke about how we were going to subcontract some work out, and one of the senior managers said "Oh yes, we could prostitute it out, couldn't we, Susan". Remember I was the only woman in the room with 40 men, and the first time I laughed, I didn't think it was funny but I felt I ought to laugh, the second time I sort of smiled, the fifth time I was just absolutely disgusted. (27: Production manager)*

The second most common type of harassment was sexual touches, and propositions other than direct propositions of sex.

*He sat down very close to me and I said something and the next moment, you know, his hand was on my knee, and I thought "Oh no, here we go". (35: Information systems manager)*

*I had one tutor who used to insist that I assist him in theatre at two in the morning, and he looked up the address of my flat and starting coming round to the flat and harassing me. He wanted me to go to a conference in London with him. I was just not interested and he kept on and on... He used to deliberately come over to me at the hospital and say will you have lunch or a coffee or something, and I would walk over to the canteen and he would be waiting there and he'd come over and sit. (54: Doctor - paediatrician)*

Other types of harassment experienced included patronising touches, looks, sexual jokes, pin-ups, propositions of sex, and indecent exposure.

Superiors were the most common perpetrators of sexual harassment. Those in manual male-dominated occupations were less likely to have been harassed by a superior. This could well be accounted for by the fact that these women were less likely to have superiors to harass them, given the greater extent of self-employment in this group. Harassment was least likely to come from subordinates, although this did sometimes occur.

The most common responses to sexual harassment were to ignore it, to make some calm verbal response, and to joke it off. The women in manual male-dominated occupations were more likely to respond non-verbally, and those in non-manual transitional occupations were less likely to respond with a joke.

The effects of sexual harassment on the woman concerned were sometimes quite devastating.

*It really made me quite ill at times and I didn't know what to do about it at times, and it made me quite desperate. (65: Manager - adult education)*

Sexual harassment could cause a persistent state of worry.

*I've had some funny phone calls when I've been at work from patients which is a bit frightening really... One time I was a bit worried because I didn't know who this person was that was giving me the hassle, but I thought they could be walking in tomorrow to pick up their glasses which I've prescribed and there I am chatting away merrily and it could be the person that's giving me the funny phone calls. That worried me. (57: Ophthalmic optician)*

On occasions sexual harassment even caused women to leave their jobs.

*The fact that he was my boss made it impossible to be rude to him, but I got another job as soon as possible. (70: Teacher - primary school)*

To summarise this chapter it may be said that the women in the present research were largely satisfied with their work, with those in non-manual male-dominated occupations being the most likely to state that their present job was their ideal job; that male superiors and coworkers can be both supportive and obstructive; that being a woman in a male-dominated occupation has both difficulties and advantages; and that sex discrimination and sexual harassment are quite widespread. Overall there were relatively few differences between the group in their experiences at work, but where such differences did occur it was the women in manual male-dominated occupations, in the main, who stood out from the others in their perceptions of and experiences at work.

## CHAPTER TEN

# Discussion : Toward a Model of Women's Occupational Choice and Entry into Male-Dominated Occupations

In this Chapter the results of the main study are discussed. Further qualitative data are also presented where this is pertinent to the discussion. The qualitative and quantitative data are combined to produce an understanding of women's occupational choice and entry into male-dominated occupations. Firstly the differences between women in the occupational groups studied are discussed. Next, both non-gender-specific theories and theories of women's occupational choice are then considered in the research findings. In the final section of the chapter, a theoretical model of women's occupational choice is proposed, and its elements and the relationships between them are explained and illustrated.

Two main conclusions may be drawn from the results of the present research. Firstly, it is evident that occupational choice is a highly complex, multi-determined phenomenon, involving a large number of inter-related factors. The second main finding is that there are many differences between women in different types of male-dominated occupation, and that these differences often overshadow any differences between women in all types of male-dominated

occupation and those in female-dominated occupations. This may be one of the reasons behind the contradictory findings of research comparing Pioneers and Traditionals (reviewed in Chapter Four).

Before discussing the differences between women in different types of male-dominated occupation, it is important to consider the relative lack of differences between the women in female-dominated occupations and those in male-dominated occupations. There are three possible explanations for this apparent similarity. Firstly it may result from the heterogeneity of women in different types of male-dominated occupation. It was sometimes evident that the women in female-dominated occupations differed from those in one of the male-dominated groups, but not from the other two, which rendered a comparison between those in female-dominated occupations and those in all three male-dominated occupations (such as the planned comparisons, C2 and C4) non-significant. Secondly, it could be argued that the women in the non-manual female-dominated group were not typical of women in such occupations since the majority were recruited through a magazine aimed at career-oriented women. It is difficult, however, to see how this possible methodological problem might have been overcome, given that to recruit from different sources would reduce comparability, and that selecting a completely random sample of women is largely precluded when extended interviews and the inclusion of *rare* subjects are involved. The third explanation for the lack of differences between women in female-dominated occupations and those in male-dominated occupations is that few differences actually exist between these groups and that the factors determining the gender-domination of occupations entered lie outside the variables measured in the present research.

Both the quantitative data (summarised in Chapter Eight in Table 8.13) and the qualitative findings provide evidence that women in manual, non-manual and transitional male-dominated occupations do not form a homogenous group. By taking both types of data and combining them, a clear picture emerges of four

different types of women in male-dominated occupations. These types of women may be referred to as *Feminine Role Rejectors*, *Nonconformist Transients*, *Maths/Science Careerists*, and *Prestige Strivers*. Women do not always fall neatly into these categories. Whilst a number of women may indeed be categorised by their predominant type, many women also exhibit some degree of resemblance to other types. It is important to note, therefore, that whilst *types of women* are referred to here, a possible alternative conceptualisation is that of four dimensions - of Feminine Role Rejection; Nonconformist Transience; Maths/Science Careerism; and Prestige Striving - along which women may vary, their types being the dimension that predominates.

Although there is no exact correspondence between types of women and type of male-dominated occupation, it is evident that Feminine Role Rejectors and Nonconformist Transients are found mainly, but not exclusively, in Group One, that is in manual male-dominated occupations. Maths/Science Careerists are to be found mainly in Group Two, that is in non-manual male-dominated occupations. Prestige Strivers are mainly in Group Three, that is non-manual transitional occupations.

### **Feminine Role Rejectors**

Feminine role rejectors are women who feel uneasy with some aspects of the feminine role as it is constructed in present day society. Such women are not rejecting womanhood, nor do they want to be men, but rather they are rejecting sexist and stereotyped notions about women, particularly the notion that women should play a subservient role in relation to men and in society generally. Such women often felt a deep sense of inequality from an early age.

*You do sense things when you're younger, although you might not know what it is. I mean the men seemed to get all the fun, they seemed to be getting out in the world, their teas ready on the table when they got in as well, you know, they've got it all ways. (32: Carpentry tutor)*

Feminine role rejectors typically find it difficult to undertake female-dominated

jobs because of the low status of many of these jobs and the subservience that such jobs require. This sometimes makes it difficult for them to formulate occupational choices.

*I knew that my brother always wanted to be an engineer, kind of directed in this way, and I knew that I wished I could say I was going to be an engineer, but I knew from the very start that it was very difficult to actually do what I really wanted to do. I did feel that there were kind of roles being put down on you. I don't think I knew what I was going to do until I was about 21 honestly. (8: Cabinetmaker)*

When Feminine Role Rejectors take up male-dominated employment they often find it particularly satisfying, especially if their work history up to that point had been confined to female-dominated occupations.

*One of the things I enjoy about being a carpenter is the fact that I'm sort of breaking with tradition and I'm actually doing a man's job, and that actually gives me a great deal of pleasure. It makes me feel sort of powerful that I'm stepping outside a role that I've been given. Its like a step towards freedom. (7: Carpenter)*

The quantitative data that suggest the predominance of Feminine Role Rejectors in the manual male-dominated group is the fact that those in this group reported having fewer traditionally female hobbies or activities during childhood, and that they were more likely to describe themselves as feminists. The finding that the women in manual male-dominated occupations were less obviously heterosexual may also indicate Feminine Role Rejection, since heterosexual relationships sometimes involve inequality and female subservience which Feminine Role Rejectors would find hard to accept.

The following account of a woman who shows many elements of Feminine Role Rejection is presented to illustrate this concept and to show how it may influence occupational choice<sup>1</sup>.

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<sup>1</sup> The four accounts given in this Chapter have been edited to make them more readable, unlike other quotes which are verbatim (apart from words in square brackets). This editing has been kept to the minimum.



Annette is 37, is married and has two daughters aged six and three. She works as a trainee carpenter for a local authority. She was an only child and was brought up in a large city.

*My dad was a railway worker, and my mum used to be a traffic warden. They're both retired now. My mum has always worked outside the home, mainly full-time, she's never been a housewife. I mean, my dad was on a fairly low income and it just didn't provide very much, and I suppose she felt that she wouldn't want to be a financial burden to him, and would like the independence of having her own money. Before she became a traffic warden my mum had always done traditional female occupations. I think it was a positive influence that, after having spent many years in traditional women's jobs, she's gone on to do a job that men did before, as it was mainly men traffic wardens when she went in in the mid sixties. I think it was their first recruiting drive for women.*

*As a child I was quite sort of academic in my interests, and in fact I have been right up until recent years. I used to like reading a lot, mainly non-fiction books. I was very interested in astronomy as well, at that period of my life. I wasn't a tomboy in that I would sort of do boyish things, but I suppose I was never a particularly feminine child either. I mean from a very early age I realised there was something very wrong with the way the world seemed to be divided between men and women, and I also realised that women got the more restricted half of it, you know, that our possibilities were more circumscribed than that of boys. So I mean I was very conscious that I didn't want to be particularly feminine or want to engage in girlish things, but on the other hand I didn't want to go to the other extreme either. I don't know, I suppose taking a lot of interest in academic things tended to be regarded as unfeminine, particularly in the 'fifties and early 'sixties.*

*I went to an all girls secondary modern school. I hated school at the time, I really did. All the time I was at school I was very much aware that I was being pushed into a hole that I didn't fit into, and I resisted a great deal. There was a sort of constant undercurrent of assumptions that those of us in the first two streams were going to go and be secretaries and typists. I mean nobody was actually asked what she wanted to do, and in fact I asked not to be put in the secretarial stream at the end of the third year, but they ignored my wishes and put me in it regardless. So it was very much a question of what they thought you ought to do, rather than what you wanted to do. I mean I thought that the way we were pushed was extremely classist and sexist, you know, it was education for working class womanhood. What I knew was that I just didn't want to grow up*

*to be the type of woman that I thought everybody around me wanted me to be. I was totally confused and overwhelmed. I mean I got anorexia nervosa when I was 15 which might say something about the conflict I was experiencing.*

*I left at the earliest available opportunity and went to work. My object wasn't so much, you know, a positive choice of a particular kind of work, or even work in general, but just to get out of school, a completely negative thing. I just drifted around I think, from the age of 15 when I got my first job to when I was about 26. I mean, I went in and out of all sorts of jobs, catering jobs, shop jobs, office jobs, all of which I hated. When I got towards my twenties I did mainly office work, but I kept on getting the sack, because I was OK as a typist, I was quite a good typist, but I didn't like the work. I was rude to supervisors, I was rude to the men in the office. I didn't have the deferential attitude, I mean I just wasn't behaving in the prescribed feminine way and I used to get the sack all the time. I've always hated feminine stereotype jobs. I just hate the servility.*

*It wasn't until I met the man who later became my husband that I started thinking about what I wanted to do. He was on a degree course at polytechnic and he said "Why don't you do something like it?" I said I don't think they would have me, as I had no confidence about myself. I'd already done some O levels and two A levels at night school, so I applied to do a sociology degree and got accepted. After that, I did an MA in sociology. It was a very chastening experience when I found myself without a job at the end. I mean I did really think that it would open doors for me. Unfortunately I finished college just at the time when the worst period of recession was breaking, and it was also a difficulty that I was a mature student because many of the employers are just not interested in you once you're past 25. I tried to get research jobs, social work type jobs, I applied to do teaching, I enquired about becoming a midwife, but I couldn't get anything and I was unemployed for a long time. I did a sewing class because I was very short of money and needed some clothes, and to my amazement I found I was quite good at it. I thought, well, if I can do this, maybe I can do other things, so I looked round and found a woodwork for women course. I didn't think about practical things until then. I thought to myself maybe there's the possibility of going into skilled manual trades, it would be much better to spend the rest of my working life doing that than to muck about in jobs which I knew I absolutely hated and that I'd always get the sack from. And, I mean, although obviously you don't get the same respect as a professional, you are sort of regarded as a craftsperson, someone who's got skills, someone who's got something to offer, whereas few women are regarded as having*

*anything very much to offer the community at all.*

*So I did two more carpentry courses and finally managed to get a job as a trainee carpenter.*

### **Nonconformist Transients**

Nonconformist Transients are not so much rejecting the feminine role, but rather convention itself. In particular, they do not conform to societal dictates regarding the protestant work ethic, having a steady job, aiming to progress up the occupational ladder - all these things they appear to reject. They typically have what may be termed a non-career orientation. However this does not result in them turning towards domesticity, as the roles of wife and mother do not hold any particular attraction for Nonconformist Transients, since these roles also represent convention.

It is interesting to note, in this context, the finding that the women in manual male-dominated occupations were relatively highly educated, and did not differ in their class origins from those in the non-manual groups, which is in line with the observations of Walshok (1981) and Chisholm (1988). Chisholm suggests that the choice of a manual male-dominated occupation by such women may represent a rejection of and resistance to middle class ideology. The qualitative data provides some support for this interpretation.

*I think the only effect it [father's attitude that a career is very important] had on me when I was younger was to rebel against it really, because he put so much pressure on having a job that it actually made me close off my mind to it. (1: Painter & decorator)*

There is much evidence to suggest that women in manual male-dominated occupations eschew traditional career aspirations.

*It [workload] fluctuates a lot. Sometimes there isn't any work, sometimes I just don't feel like it. (9: Cabinetmaker)*

*I was looking for jobs that were very few hours a week, eight or ten hours a week... I mean there is a lot more to life than work, I think so anyway. (5: Painter & decorator)*

The term Transient is used to reflect the way in which Nonconformist Transients frequently move from job to job, and in and out of employment.

The quantitative data substantiate the impression derived from the qualitative data that Nonconformist Transients are found mainly in the manual male-dominated group. The women in this group attached less importance to promotion prospects, supervising others and job security, had comparatively low needs for achievement and dominance, and placed a high value on avoiding stress and high pressure at work. They also had undertaken a greater number of previous occupations and had more experience of unemployment than those in the other groups.

After several years of drifting or floundering Nonconformist Transients frequently report the need to get a skill, to "get something behind them". Manual male-dominated work often meets their need for a flexible, relatively well-paid, unconventional employment, with few connotations of "career".

Nonconformist Transients often described feeling that they didn't fit in, and this may be related to the dislike of school and the increased reported incidence of mental breakdown of women in the manual male-dominated group. The mental breakdowns typically occurred prior to entry into male-dominated employment, and such employment was often described as being very therapeutic, especially amongst the women who were self-employed.

*Its quite exhausting, but at the same time I've actually got much more energy now than I've probably ever had in my life before... I feel much more in control of me, and I make choices for myself. (7: Carpenter)*

The following account gives some flavour of the experiences and perceptions of the Nonconformist Transient.

Helen is 29, and is the single parent of a five year old son. She works as a self-employed gardener, and employs one gardening assistant. Her father was a machine operator and her mother had worked for several years in a factory. She has one younger brother.

*I don't really remember much about my childhood. It wasn't very happy and I think I sort of blocked it off. I didn't get on with my parents at all well. I used to cry and scream and run away from home. I got into bad company and things that really undermined my confidence in myself, and I had probation officers coming round and all that.*

*When I was eleven I went to a girls grammar school and that made me a lot worse. It was a very oppressive environment. I couldn't do anything right, even walking in the door. I was always in detention because of my hair, it was all curly and they said I had to wear an alice band and have it cut, that I was a disgrace to the school. Once I went to school with nail varnish on, black nail varnish, and had to take it off in front of the whole school. It wasn't anything major, but I was always getting into trouble.*

*During my childhood I never really had any aspirations. I can remember my brother having aspirations. He was pushed towards a career by my parents from age 12. They just assumed I'd get married. They didn't expect me to do anything or be anything. I never really thought about a career. I suppose I really thought that I had to be a housewife, that I'd try and run away from it, but that it would probably happen.*

*Then I went to do A levels at technical college, I did sociology, domestic science and art and craft. That was the best thing that had ever happened, I really came into my own. I mean it was a very free environment, so I did well and actually became really fulfilled and found a lot of abilities I didn't know I had.*

*At that stage I decided that I wanted to be a social worker. I've always taken an interest in people and problems, and I started doing voluntary work and got very involved. Then a lot of things went wrong - my gran died, who I was very close to, I split up with my boyfriend, and there was a mix up and I was sent the wrong A level results saying I had failed. So many things had gone wrong that I had a sort of nervous breakdown. So I ended up at poly in a right state, full of tranquillizers. But I carried on doing community work as a volunteer and managed to finish my degree.*

*After that I applied to do a social work course three years running, but I didn't get in. During this time I was working in residential care and I did very well, I shot up the ladder and by the time I was 23 I was running a children's home and was in charge of 20 staff. I was under a tremendous amount of pressure and was smoking and drinking a lot and it all got too much, so I left and went to Norway for a break. When I came back I tried to get a job that was a bit less high-powered, but the next job I went into didn't work out, so I left.*

*I was depressed, exhausted and directionless. I had to really sort myself out and drop out. I'd never dropped out or said "I'm going to do what I want to do". I needed to find me. I wanted to become like a self-contained person. I didn't have any peace of mind is what I'm trying to say.*

*So I went to Holland. I was living in a squat, doing it up, doing my own plumbing and things. Doing those practical things, working in the garden, feeling free from pressure and stress, that's when I realised that that's what life is about and that's the way you get control over your life. That was when my whole life changed really. I realised it just wasn't me to be this very straight character. I got pregnant because that was what I really wanted to do. At first I did several jobs as a chambermaid and then I got a job in a garden, a botanical nursery, and I found I had a talent for gardening.*

*I came back to England just before my son was born. Over the next few years I took an allotment, did a correspondence course in organic crop production and took the Royal Horticultural Society's general examination, I did a carpentry for women course, and a weaving course. I did loads of courses to gain practical skills.*

*I sat down and thought I need a job that fits in with kids, I need a job where I haven't got a boss because they always make me feel bad, and I need a job where if my child falls sick it doesn't matter if I don't go to work. I thought about gardening, but I couldn't see how I could make a career out of it.*

*I applied for a few gardening jobs, one was with the council and it said in the advert "No experience necessary, but preferred". I said well I've done this course, and I know about that, and all they asked me was "How do you think you would manage working with a gang of men?" you know, "Would you mind being teased all the time? They can be a vulgar lot at breaktime". That's all they went on about, it drove me crazy. Of course I didn't get the job.*

*Then I had a huge piece of luck, the luckiest break I've had for a long time. About a year ago I met a man who was a landscape gardener at the time, but he didn't know anything about plants, and when he met me he was thrilled because he had some jobs that were very specialised and he really needed someone who had this knowledge. He gave me about nine hours work a week. So I learnt from him, and then he went bankrupt and I took over part of his business.*

### **Maths / Science Careerists**

Maths/Science Careerists are largely to be found amongst those in non-manual male-dominated occupations. Their main defining feature is their over-riding interest in mathematics or science, which typically begins in childhood.

*At four years old I discovered "sums" and at ten years did "mathematics". I have always liked figures and logical problems and have never thought of doing anything but maths. (44: Chartered accountant)*

The quantitative findings in support of this conceptualisation are that the women in the non-manual male-dominated group had studied more traditionally male O and A level subjects (invariably maths and science subjects) than those in the other groups. The term *Careerist* is used to convey the fact that such women are typically career oriented, particularly in comparison with Nonconformist Transients. Maths/Science Careerists gravitate towards male-dominated occupations since the majority of occupations involving mathematics or science are male-dominated. The following account is presented to represent Maths/Science Careerists, although it also contains elements of Prestige Striving.

Deborah is 25 and is working as a geophysicist in the oil industry. She lives with her boyfriend and has no children. She was an only child and lived in several different places during her childhood as her father was in the Forces.

*My father is in the RAF. During the war he was a navigator, and he's also a meteorologist. He used to point out cloud formations to me, tell me about the weather and why it rained, you know, why it snowed etc..*

*My mother used to be a nurse, but she's got very bad arthritis, so she had to stop. She wanted to be a maths teacher, but at the time when she was choosing her profession it was wartime and then most women, young, fit women, went into either nursing or something like the WRENS or whatever, so she went to be a nurse and just stayed on. She worked before I arrived and up to my birth, I mean I was a late baby, 36. I don't think she worked when I was very young, but when I was about seven or eight she went back to work.*

*When I was a child I read an awful lot. It was then I started getting interested in geology. I started picking up pebbles on the beach and collecting them, and started doing things like lapidary, which is polishing stones and making them into jewellery, very bad jewellery, but I mean that was where the geology interest started, looking at their crystal systems, wondering how they were formed and things.*

*I went to a single sex convent school. I got 12 O levels I think, 11 or 12. I didn't drop anything, the only thing I didn't do was English literature. It clashed with physics so English lit. went out of the window. So did religious instruction because that clashed with chemistry. There was a hard core of about five girls who took chemistry, physics and biology, and the rest I didn't take much notice of. When I was 16 I went to a mixed sixth form college where I did maths, physics and chemistry A levels and geology O level. Those were my best subjects. I just stated what I wanted to do, and that was it.*

*We didn't really have any careers advice at school. In the sixth form there was one person, but the most sensible suggestion I got was you could work on an oil tanker, so I didn't take any notice. It was totally unhelpful.*

*I decided to do a physics degree because of the maths in it, and there's always been a scientific tendency in me, and then becoming interested in geology, doing physics seemed to provide a fairly broad base for a career in industry, which I could apply to geology. I didn't discuss it with anyone. I can remember coming home and saying I think I'll do physics, and they said "Oh fine, dear", and that was it.*

*In my final year at university I started looking for a job. I wrote to the seismic processing centres, I wrote to oil companies and I also wrote to quite a lot of computer firms as well, because I wasn't sure that I'd get a geophysics job. I got rejected from all the computing jobs, I was quite peeved about that. I thought there might be a bit of discrimination at work because at one interview the first question they asked me was "Did I have any boyfriends?". I didn't get a job*



*for about two or three months and then I had three interviews all in the same week. Two were geophysics jobs and the third one was research into astrophysics at Cambridge, and I chose geophysics. It paid more than the research job, so that was a factor.*

*What I like about this job is the fact that its challenging, interesting, high pressure and technical. But having been here three and a half years it probably is time for a change, to get experience in another company. I am also thinking of going back to university to do an MSc in geophysics, or if I want to earn a lot more money, possibly doing something like an MBA so I could go into the management side of things, I don't know. My ideal job would be being chairman of an oil company, at the top, earning piles of money, masses of power.*

*I'm not particularly interested in having children. My boyfriend's sister has a child and to me she's an irritating little brat and she seems to require an awful lot of attention etc.. I'd probably have one, just to see, but I would get a nanny to look after it, and I certainly wouldn't do it until I was in my mid thirties and I was in a very secure position in my career to be able to take six months maternity leave.*

### **Prestige Strivers**

Prestige strivers are women who feel a great need for status, respect and prestige. Such women seek to satisfy this need through high status forms of employment. Given the fact that the vast majority of high status jobs are male-dominated, the occupations that Prestige Strivers seek and enter are typically male-dominated.

The quantitative evidence for the characterisation of women in non-manual transitional occupations as Prestige Strivers is that women in this group tend to place a high value on status and respect (along with those in female-dominated occupations, for whom, the qualitative data suggests, this need for status may be a result of feeling that their present occupation commands little status or respect). The women in non-manual transitional occupations had also attended more prestigious schools and were more likely to have obtained a degree, both of which findings support the conceptualisation of such women as Prestige

Strivers.

It is important to clarify here the difference between Prestige Strivers and Feminine Role Rejectors, who, at first glance, might appear to be very similar. It is true that both types of women have a great desire to avoid being in a subservient role. However, the concerns of Feminine Role Rejectors centre on gender issues (e.g. they describe themselves as feminists, they rejected traditionally female activities during childhood), whereas the concerns of the Prestige Striver are more focused on class issues (e.g. they attach great importance to status, and attended more prestigious schools). The two types are also distinct in that whilst the Prestige Striver is aiming to be the *top dog*, the Feminine Role Rejector is striving merely not to be the *underdog*.

The determinants of the Prestige Striver's desire for status and respect are unclear. This desire may well be fostered by independent schooling. However it is sometimes evident at an earlier stage, so some form of parental influence may also be postulated.

*I told them I wanted to be a doctor when I was about four. I was given a nurses outfit and I said "I don't want to be a nurse, I want to be a doctor". It was a bit of a joke then but in fact it stuck. I mean doctors and nurses is a game that kids play and the doctor always seemed to be in charge and I was a bolshy kid and I wanted to be in charge so I was going to be the doctor, the one who gave the orders. (53: Doctor - G.P.)*

Several women stated that their fathers had been denied opportunities and had struggled to make their way up the occupational ladder, often describing them as a "working class lad made good". This was often seen as a powerful influence that instilled in them a desire to emulate this prestige striving or to meet high parental expectations.

*My father got a scholarship to university but couldn't go because he was the eldest in a family of ten, so he had to go out and earn a wage. He sat diplomas in engineering, but he never did his degree. I think maybe that was it, he always wanted an education and therefore we were all pushed. The onus was, I mean from primary school I remember thinking "You go to primary, you go to secondary*

*and then you go to university"... It was just a natural progression, it was expected of you, if you hadn't done you would have fallen very short. (54: Doctor - paediatrician)*

In the following account it is apparent that as well as parental and educational determinants, experiences in adulthood could also give rise to prestige striving.

Valerie is 34, and is a solicitor specialising in commercial law. She is divorced and has two children aged 15 and 16. She is the youngest of three children and was brought up in a village.

*My father is a technical author working in the civil service. He's very conscientious, he works very hard. He didn't go to university, he left school at fourteen. It was in the 'thirties, the depression and he had to leave school and get a job, but he's done a lot of studying at night school, and he has been quite a strong influence on me from that point of view. I'm sure that a lot of the determination I've got comes from him because he has had to struggle a lot to get where he got to, to do the things he did.*

*My mother didn't work when I was a child. I think she would have liked to, and it would have been a lot better for her if she had, but the family situation was very difficult because my sister is mentally handicapped. I think my mother influenced me in a negative way, in a sense that I wasn't ever going to get stuck like she did. I don't see her as a failure or anything like that because she hasn't done the things which, in some ways, I think she ought to have done, because how could she when she had that guilt hanging over her of, you know, this child. But at the same time it did act as a spur to me that I wasn't ever going to get stuck in a situation where you don't have a chance to do things that interest you or the stimulation and so on that comes with working.*

*I got a scholarship to a direct grant school, it was an all-girls school. I didn't do any sciences at all, mainly languages and art subjects. It was a very academic school, we had cookery for one term the whole time I was there and you couldn't do domestic science or needlework for O level. I went into the sixth form and started doing English, French and German A levels. I was interested in doing something combining languages and business. I didn't want to be a translator or interpreter because in those jobs you're always translating someone else's words, and I wanted to be the one who said things, albeit in a foreign language. In other words I want to be the boss [laughs].*

*That is the theme that has run through my life I think. Anyway I filled in my U.C.C.A. form and then realised that I was pregnant and left to get married. I couldn't do my A levels that summer but I have carried on studying part-time, doing Institute of Linguists courses and Open University courses, and from the time I left school to when I went to university, there were only two years when I didn't take an exam.*

*For eight years I was bringing up the children and was involved in various businesses that my husband and I ran. After that we went to live in the Middle East. I quite enjoyed living there, but it became so obvious to me that a wife is kind of a third of a couple in a society like that. I loathed it. I really did feel when I was there that you were less than nothing if you were a wife who looked after children. I got sick of people coming up to me at parties and saying "What does your husband do ?", so I decided to come back to England and get a degree, which I did. While I was at university I became interested in doing a further degree in business studies, or an MBA, but the careers advisor suggested law, and I decided, all things considered, that law would be the better option.*

*The choice to do law was influenced by the fact that it is an acceptable job for a woman. It is a profession in which you do have a chance of getting to the top even though you're a woman, and that was quite important to me. I wanted something with status. Also the kind of law that I do, it is relatively speaking a man's world and I wanted to see if I could succeed in that kind of man's world. I mean the whole experience of being in the Middle East was really quite cathartic because you're regarded as such a nonentity as a woman, that I was quite determined that I was going to make my mark on the world, on a man's world. Another one of the reasons I am so determined to succeed is because of my ex-husband, because he never allocated me a very large status in our business, and never regarded my interest as important at all.*

*I would never like to do teaching, social work, or any kind of traditional caring jobs. One of the reasons is because of this whole thing about status, you know, the way you are sort of looked at, the way you are regarded by the rest of the world. In those caring type jobs you just get labelled as something a bit inferior, and I'm absolutely determined not to be.*

## Women's Occupational Choice

It is now time to consider women's occupational choice in general, and to evaluate the theories of occupational choice described in Chapters Two and Three in the light of the present research findings. Looking firstly at non-gender-specific theories (reviewed in Chapter Two), taken as a whole, the main ideas conveyed in these theories are that occupational choice is a process; that individuals attempt to achieve a match between their self-concept or personality and their chosen occupation; that social factors play an important role; and that chance also plays a part in occupational choice.

From the present research it was clear that occupational choice is a process. Several women referred to this process by which occupational preferences are formulated and later rejected.

*[I wanted to work in a bank but] it just sort of faded away... I think it was just a phase I went through. (85: Clerical worker)*

*The idea just fizzled out of my head. You know, when you're younger ideas come into your head and then they probably get taken over by something else. (1: Painter & decorator)*

Occupational preferences appeared to increase in number and change with age.

Some early childhood preferences were fantasy-based.

*[When I was five or six I wanted to be a ballerina] because I thought they were pretty. I'd never done any dancing. (74: Midwifery tutor)*

*[I wanted to be a nurse] because the books I was reading at the time were all about a nurse called Cherry who was always getting into scrapes. (48: Sales representative)*

Other childhood preferences appeared to be a direct translation of enjoyed hobbies and interests, such as those attending dancing classes wanting to become dancers, and those who had had riding lessons wanting to become grooms and showjumpers. Still other childhood preferences were based on the people individuals came into contact with on a day to day basis.

*I quite strongly believed I would be a teacher at some stage, I don't*

*know why. I suppose everybody does. Teachers are the only adults, apart from your parents, that you come into contact with in a lot of cases for an extended period of time, so you know what they do and you think "I'd like to be a teacher, telling the class what to do". (41: Investment controller)*

*I wanted to be a fishmonger. I'm terribly influenced by what's sort of around I suppose. There was a fish shop round the corner and I used to spend hours watching him gut fish and everything. That's what I wanted to do when I was about six, definitely, that's what I wanted to be when I grew up. (63: Retail manager)*

In adolescence, a wider and more sophisticated range of preferences emerges. For example in childhood (up to age 12) the only medical jobs that were mentioned are doctor and nurse, but in adolescence (age 13 to 18) 11 different types of medical jobs were mentioned. In addition, adolescent preferences were no longer largely based on fantasy, hobbies and daily contacts, but were tempered by interests, values, specific abilities, and the likelihood of being able to enter various occupations.

As well as supporting the conceptualisation of occupational choice as a process, the findings of the present research also provide evidence to support the notion that individuals prefer occupations that they feel match their self-concept.

*I always did want to do something creative, I wanted to deal with ideas, wanting the whole kind of lifestyle and environment. All those sort of things are me. I mean I've felt I've become more me as the years have gone by, you know, as far as work is concerned... I feel I can be me in this job, that's very important, you know. I'm not continually being something I'm not somehow. (82: Television researcher)*

The role of the self-concept in occupational choice is discussed in greater detail in conjunction with the model of women's occupational choice below. The present research does not provide any direct evidence on the role of personality-occupation match, as distinct from self-concept-occupation match, in occupational choice.

Turning now to social factors, there was clear evidence in the present study that such factors play an important role in occupational choice. One social factor is change in economic and occupational structure.

*What made me get out of it [architecture] ? Well one of the things was that I was becoming increasingly frustrated from the design point of view. Architecture at that time was in great difficulties, there was a recession on and there was very little money around. I was doing work for housing associations as well as property developers and private clients, and my private clients more or less dried up. The housing association was also very tight with money. The Government brought in particularly tight restrictions and it really became impossible to design group buildings - all you could find were concrete blocks and I hated this. (90: Jewellery designer)*

Unemployment also influenced occupational decisions.

*I made a list of the jobs I wanted to do, the jobs that I would tolerate doing and the jobs I wouldn't do at any cost. I applied for all the jobs that I wanted to do and didn't get anywhere... Anyway I went through the list, right to the bottom, even doing factory work and things I thought I'd hate. But unemployment was such that I was virtually unemployable, because I didn't have any experience or I was overqualified. (34: Computer programmer/analyst)*

Several of the women in the present study had been made redundant, sometimes more than once, and their redundancy was often followed by a change of occupation. Technological changes can also influence occupational choice and development, although in the present research, its influence was largely confined to concerns about the future.

*It's just a bit worrying about the machines they're bringing out to test eyes. I mean there might come a day when they don't need us at all. (57: Ophthalmic optician)*

*With all the automation they're bringing in I might not have a choice [about staying in my job]. They might replace me with a computer. (15: Underground train driver)*

Financial constraints were also apparent and often had a direct effect on occupational choice.

*Although I would have liked to have become a barrister I had no private income to keep me during my pupillage, so I decided that I would opt for being a solicitor because I would get paid while I*

*trained.* (60: Solicitor - local government)

One particular financial constraint is the availability of grants, and this played an important role when subjects were considering changing occupation. For other women it was their personal finances combined with the level of public transport provision that constrained their occupational choice.

*I had applied for the job about a year previously, but then I decided there wasn't any point in taking it because the salary was so low I couldn't afford to buy a car to get out there and there was no public transport of any significance.* (48: Sales representative)

In addition, there were certainly some women who at some point in their lives had taken any job that was available regardless of its nature or their own interest or aptitude for it, which supports the opportunity structure argument that it is local job opportunities rather than individual's choices that determine occupational entry.

*I just took it [present job] as it was the only thing going.* (18: Butcher)

*I mean I could have ended up doing anything. I think it was just what was around at the time, you know. I suppose I looked through the papers [saw a clerical job] and thought "Oh yes".* (32: Carpentry tutor)

The social influences discussed above all act in a negative way, constraining occupational choice, but social influence can also be positive. For further discussion of social factors in occupational choice, both positive and negative, see the section below concerning the model of women's occupational choice.

The present research also provided evidence of the influence of chance or happenstance on occupational choice. This sometimes occurred with regard to education and training.

*I went to my physics tutor and said this isn't for me and he said "Well why don't you try medicine ?"... So I went over to the Dean and asked him was there a place, and a girl had actually been killed on a motorbike, it was a terrible way to get in, and he took me in.*



(54: Doctor - paediatrician)

*They rejected me after the interview because I just couldn't show them that I'd ever made anything out of wood, but then they rang me up about a week later saying they had a spare place and if I really wanted to come I could fill it. (9: Cabinetmaker)*

The influence of happenstance is also evident with regard to entry into employment.

*Through a women's group I was going to at this time I met a woman who was a self-employed painter and decorator... At this time [having left teaching after a nervous breakdown] I was thinking "What am I going to do ? I shall be totally unemployable, oh my God, oh my God", and she said to me "Its ever so easy to set up as a painter and decorator if you're any good at it , and it doesn't cost very much". I said "I couldn't do something like that, its a crazy idea". And then later on she said to me "Look, I'm desperate for a pair of hands because I'm so behind on my work, why don't you come and help me ?". So in October I started working with her and I worked with her for the rest of the year. By the new year I'd realised that I was very good at painting and decorating and also that I was very unhappy with the set up with this other woman. I had this friend who was a printer and she said to me "This is crazy, what you need is to set up on your own, you don't need to work for anyone. just go out and set up on your own, you're quite capable of doing it". And the next thing I knew she had come back from work one day having printed me up these cards, which said my name, painter and decorator etc. on them. She said "Right go on, out you go, distribute these cards", so I put a card in the post office, and that's how it all started. (2: Painter and decorator)*

Happenstance has a further role to play in occupational changes and development in adulthood.

*(What made you change from psychiatric nursing to teaching ?)*  
*Two very strange incidents sort of coincided. For a start I was very badly beaten up by a patient after eight years in psychiatric nursing... And at the same time a friend of mine who was a teacher told me about a school that was desperate for a teacher of modern languages. So I went in and they offered me the job as French and German teacher. (72: Teacher - modern languages)*

*In this job I was in the right place at the right time. Early retirements and an immediate superior having a child unexpectedly and deciding not to go for promotion meant that I jumped several career stages from scale II librarian to head of department scale IV,*

*which is impossible according to some. (76: Librarian)*

One further happenstance factor that merits some mention is that of accidents and illnesses.

*I had to stop teaching because of disc trouble... The disablement officer offered me basket weaving and I thought I might as well do something I could earn money from, so I applied for a grant to study accountancy. (44: Chartered accountant)*

*[I'd broken my ankle and] I've since then broken my shoulder blade as well, so I don't think I'm going to be fit for site work probably ever again. (32: Carpentry tutor)*

However, in the majority of the above examples, the women had either the prerequisite skills or some degree of interest, therefore chance cannot be said to be operating in a random way, but rather within certain confines.

Overall, therefore, it must be concluded that there is ample evidence in support of the four main propositions emanating from the non-gender-specific theories of occupational choice.

Turning now to theories of women's occupational choice, the first theory to be discussed is the biological perspective on women's occupational choice. The present research was not designed to test the biological thesis, however it does shed some light on women's physical abilities and their role in occupational choice. Whilst several of the women in manual male-dominated occupations felt that the physical demands of such work were within the capabilities of most women, some did feel disadvantaged in this respect.

*It's not much fun dragging heavy furniture about when you've got your period. I wish I was stronger. (17: Housing estate cleaner)*

*My doctor told me that I'd worn out three of my discs in my lower back through digging. (13: Gardener)*

However others pointed out that, whilst women's lesser physical strength is sometimes problematic, this is not inevitable.

*Everything is designed for the male physique. A cement mixer doesn't have to be as heavy as it is. Bags don't have to be a hundred weight, plasterboard doesn't have to be eight by four and so on. (12:*

Builder)

Further, three women in male-dominated occupations mentioned particular advantages of the female physique.

*I've found small hands are very useful in car mechanics.* (14: Car mechanic)

Psychodynamic, radical feminist and sex-role socialisation theorists would all predict that women differ from men in their interests, values, and self-perceptions, and that such differences play a part in occupational choice. These theorists differ in their explanations of the genesis of sex differences, psychodynamic theorists believing they are rooted in the early parent-child relationship; radical feminist theorists perceiving differences to arise from either differences in reproductive biologies or early parent-child relationships; and sex-role socialisation theorists proposing that these differences are the result of sex role socialisation in the family, in education and in the media. The present research cannot shed any light on the causes of gender differences. However many women in the study did perceive themselves to differ from men in general. Some felt less confident.

*I think I have sometimes felt I'm not as confident as I should be. I have to remind myself sometimes that I am as good, and I know I am, but sometimes you have to remind yourself.* (63: Retail manager)

*I think women do not have a strong feeling of positiveness about themselves which is natural, no natural is the wrong word, which is intrinsic to a man. Its part of being brought up, of being dominant, of being masculine, of taking, of demanding, of being confident in society.* (47: Sales representative)

This lack of confidence may be evidence of the low self-efficacy many women experience in relation to male-dominated occupations.

Others asserted that being female had resulted in them having a different set of values from men.

*I don't see myself becoming sort of mega-successful, because a lot of my contemporaries definition of mega-successful is working a seven*

*day week. That isn't my idea of successful.* (43: Chartered accountant)

One important facet of sex-role socialisation theory is the influence of parents as role models. In Chapter Eight maternal influence on daughters was discussed, in which it was suggested that mothers have an influence through positive and negative role modelling; fulfilling maternal ambitions; reacting against maternal pressure; encouragement and discouragement. It was found that fathers can also exert influence in all of these ways. In addition parents can exert another type of influence - providing occupational knowledge and awareness. These types of influence are presented in Table 10.1.

Table 10.1 Types of Parental Influence

<i>Positive influences</i>	<i>Negative influences</i>
Imitation / positive role modelling	Avoidance / negative role modelling
Fulfilling parental ambitions	Reacting against parental pressure
Encouragement	Discouragement
Providing occupational knowledge and awareness	Not providing occupational knowledge and awareness

There were many examples of parents acting as positive role models.

*I think the main thing that my father has influenced me with is showing me what satisfaction you can get out of doing a job... I saw that he got such a tremendous amount of satisfaction out of his job that he wanted to put a lot more into it. I mean really his job means an awful lot to him, and so I learnt from him really that a job isn't only a way of making money, it gives you other things as well.* (42: Chartered accountant)

For others, the parent acted as a negative role model, a model to avoid rather than emulate.

*My father made me realise that I don't want to be employed by other people for very much longer, because he's regretting it at the age of sixty that he's always worked for other people, and I always felt that his creativity, that he could have brought out if he hadn't been employed by somebody else, didn't come. (8: Cabinetmaker)*

Some women felt that they were fulfilling their parents' ambitions.

*My father's mother was widowed and he had the choice of two years of teacher training or four years at university, but you had to borrow money and he opted for two years teacher training and has regretted it ever since, instead of doing, say, electrical engineering or something. So I think that he was sort of trying to perhaps get his ambitions through me and my brother who both did engineering degrees. (19: Mechanical engineer)*

Others described reacting against parental pressure.

*Ever since I was little they [parents] were saying "Oh you could do this" or "You could do that". I think I've spent the rest of my life trying to prove them wrong. (9: Cabinetmaker)*

Encouragement was a potent force for some women.

*When I was about 14 I remember my father saying "I wish somebody would do medicine", talking to nobody in particular, "I wish your brother had done medicine"... My father very much wanted everyone to do what he thought was right and he thought medicine was a nice job for a girl. I think he thought it combined intelligence with caring, and it was nice for a girl to care about people. (54: Doctor - paediatrician)*

For others parental discouragement influenced their occupational choices.

*I did consider being a policewoman, that's probably because my dad was a policeman. But he put me off that, he said the policewomen get the most awful jobs and they're just left to do the domestic type jobs, you know, looking after little lost children. I think my dad was dead set against me doing it. (85: Clerical worker)*

Sometimes, however, parental discouragement was ineffective, especially if it occurred after the woman had left home.

*I just said to her [mother] "I want to be a carpenter", and she did the whole thing about, you know, "You've wasted your degree, a clever girl like you" and all that. I think she was hoping I would think of something else. We didn't really talk about it very much because I'd say what I wanted to do and she'd say its ridiculous or*

*whatever, so we didn't really talk about it very much. But actually she's now very proud of me for what I'm doing. (32: Carpentry tutor)*

The final type of parental influence is providing occupational knowledge and awareness.

*When I was about 12 or 13 I used to work for my father on Saturday mornings as he'd just started his own business, and I used to write in all his books, you know, his VAT books and his cash book and that sort of thing, and add it all up... My father has always been a commercial person, a salesman really and I think sort of growing up with the idea of him having his own business, I suppose that sort of led me to thinking that a more commercial sort of career would be interesting. (41: Investment controller)*

The picture therefore appears to be somewhat more complex than that suggested by sex role socialisation theorists who have tended to focus solely on imitation, and encouragement/discouragement.

It must also be pointed out that parents are not the only people who exert the types of influence outlined above, although they are probably the most important ones, given that parents are the primary agents of socialisation. However, siblings, friends, teachers, other relatives, colleagues and spouses can also be models to be imitated or avoided, can encourage and discourage, can hold expectations that may be fulfilled or rejected, and may provide occupational knowledge and awareness.

Another major perspective on women's occupational choice is that of the life course. The present research provided ample evidence that the occupational choice process continues into adulthood.

*[I'm 30 now and] I still keep thinking I wonder what I'm going to be when I grow up. (85: Clerical worker)*

*That has got to be the first job that I got interested in. I actually got involved in it. I began to see myself in a career for the first time in my life. I was 25 years old, so I was a late starter as far as thinking about careers went. (48: Sales representative)*

Many women made major occupational changes in their twenties, thirties and forties.

*I'd stayed there [in insurance] for nine years getting more and more depressed... Really I suppose at the age of 27 I started really thinking to myself "This is ridiculous, I must do something and get out". (12: Builder)*

Particular crises in adult life also influenced occupational decisions.

*I feel as if I'm at a watershed at the moment. I really don't know what to do. I've been pleased to have this rest [sick leave] which has given me a breathing space and hopefully put things into perspective. I wondered how much longer I could stomach the job because it was so demanding. (65: Manager - adult education)*

It is interesting to note that the ages at which women commonly first thought of entering their present occupation peaks at ages 14, 17, 21 and 29. The first three of these ages correspond to turning points in the British education system. However, the last peak may reflect the developmental change that occurs around thirty that has been noted by many life course theorists.

Major change in adult life occurs when women marry or have children, and these events clearly play an important role in occupational choice, a position elaborated by domestic theorists of women's occupational choice. For some women it was the expectation of marriage that influenced their occupational choice.

*When I sat down and they asked me what I wanted to do I didn't know at all. It was just a black hole. I mean I thought I'd go to college and get married. (37: Economist)*

*I don't think I really thought of any sort of career at all until my early twenties. I think I was one of these people that think you leave school and get married and all the rest of it. You don't think any further than that. (45: Management accountant)*

As noted in Chapter Eight, the majority of women did not take childcare into account when formulating their occupational preferences. However, a few did.

*One of the main things was that I would be able to do it [accountancy] part-time and still have children and only work part-*

*time. That was crucial to my decision. (43: Chartered accountant)*

*[What put me off doing medicine was that] I had read at that stage about the difficulties of being a lady doctor and being a wife and a mother which I assumed I would be. (55: Dentist - orthodontics)*

It is interesting to note that these women perceived male-dominated occupations as being conducive to part-time employment. Although it is true that certain female-dominated jobs, such as catering and cleaning, are more likely to have opportunities for part-time working, this is not true of all female-dominated jobs, and the women in female-dominated occupations in the present sample did not perceive their jobs to offer opportunities for part-time employment to any greater extent than the women in the male-dominated occupations. In addition those in female-dominated occupations showed no greater desire for part-time employment or work that fits in well with childcare. Therefore, women's desire for part-time employment does not appear to be a major contributory factor in occupational segregation, in the present research at least.

However, there was evidence that, at some periods in their lives several women did look for employment largely on the basis with what fitted in with childcare arrangements or school hours.

*I was just trying to find something that was going to fit in with her [school-age daughter] day, and I was going to worry about the holidays when they came up, so I was looking for part-time work, sort of nine to three, that sort of thing. (48: Sales representative)*

*I had to find full-time employment because I had become a widow. So I got a job which fitted in with the children and school as a church caretaker. (16: Bus driver)*

The many problems and benefits in relation to employment that marriage and children bring were detailed in Chapter Eight.

One of the main concerns of domestic theorists is role conflict, which was experienced by some of the women in the present research.

*It is a big problem when your children are ill. When my son had acute appendicitis and I was very torn and felt awful about not being*



*there.* (65: Manager - adult education)

*I had some conflict about leaving him [son], because I thought I ought to go on [with dentistry] as well as being with him.* (56: Dentist - general practice)

*I don't think you can give your children enough attention and give your work attention as well.* (87: Clerk-typist)

As in the quotes above, role conflict typically occurs in relation to children, but women can also feel divided between work, husband and home.

*The thing that worries me is that if success means a long time at work I wouldn't like that because I like time for my husband, time for the home, time for other interests. I've thought about it and I wouldn't like to have a real consuming job, a career. I don't think I'd be happy with that.* (85: Clerical worker)

Role conflict is often compounded with role overload. Some women certainly felt overloaded. Occasionally it is employment that is curtailed to cope with the overload and conflict.

*I couldn't actually commit myself to any more hours [of employment] because I can't get the housework done or the shopping done... And the children, I mean either they go to a childminder which means they'll just watch television from the time they leave school until when I pick them up, which I don't particularly want and they don't want, and anyway they go to different activities and there's no way you'd get someone to drive them here, there and everywhere to music lessons unless you had someone living in and I wouldn't want someone living in.* (89: Research officer)

In other instances it is educational activities that are curtailed.

*I did do the Open University for a while just before and just after my daughter was born. Again I had no support at home for it and I was trying very hard to make a new marriage work. My husband demanded long summer holidays and the pleasure of my company, and the summer was really the high pressure time in the Open University, it was the time when you're supposed to go to summer school and all the rest of it, and it was just a non-starter. It just didn't fit in with the way I was living and I'm afraid I opted to try and make the marriage work rather than the academic line.* (48: Sales representative)

More often though, the women in this sample do not let their role overload

affect their worklife. It did however often affect their social life.

*It [housework] affected my social life because by the time I'd done my work and my housework there wasn't a lot of time for anything else... Because of the traffic I leave home about half past seven in the morning so I'm in work by about eight o' clock, and I don't leave before six at night, and often by the time I get home and have something to eat, do the ironing, read for bit, watch the television, its bedtime, so my work is a big part of my life. (35: Information systems manager)*

Role conflict and overload may also result in personal stress and exhaustion.

*I used to be extremely stressed when I did all that night work [working three nights a week as well as caring for a husband and two small children]. You know, it was expected that I provide the same standard of home and everything as if I wasn't working and it was expected that I would pretend that my income was just something for my own amusement when in fact it was the difference between having a roof over our heads or not. So it created a great deal of stress. (72: Teacher - modern languages)*

Sometimes the stress of multiple roles, particularly where one role is very demanding, can be a contributory factor in the break up of marriages.

*He [ex-husband] didn't really understand when I had to work lots of overtime. He didn't like it very much... He got very sort of domesticated and into the house and all that sort of thing whereas I was getting more ambitious in terms of my career and everything, so we diverged quite a lot I think, which is a shame. He'd have preferred me to be a bit less ambitious I think. (41: Investment controller)*

Whilst the women in groups one to four did not differ in the incidence of divorce, some women did feel that there was a link between their strong career orientation and their marriage break-up. Some, like the investment controller quoted above, viewed their worklife as a contributory factor in their divorce. Others felt the financial independence that comes with full-time employment facilitated the marriage break-up by making it more feasible and less economically painful. However, others saw their divorce as being something which made them more career oriented, either out of financial necessity, or out

of a need to succeed at work to compensate for the failure in marriage.

*I left that job because I needed a better paying job. I needed to earn real money. The receptionist job was peanuts and I needed one which paid a wage that one could actually live on... The end of the marriage actually caused me to have a career because I had to be self-supporting. (48: Sales representative)*

*I wonder if perhaps one of the reasons I am so successful is because the first marriage was unhappy. Had I been quite happy I might not have pushed myself so hard, and perhaps the only reason I have been successful in business is because I was unsuccessful in my first marriage, I don't know. (35: Information systems manager)*

Sometimes it was not being married or having children that was the problem in itself, but rather employers' attitudes to married women and mothers.

*The bank would tell you no, but I would still say yes [my career has been affected by my marriage]. I mean I carry on using my maiden name at work, because its amazing how I do think they have preconceptions, you know, so that when you just say Miss so and so, I do think people treat you slightly more seriously as a manager. Its almost like they actually see that you might be in it for twenty years, whereas if you're Mrs and you're still of childbearing age I think they see that "Oh you might be here a couple of years and then you'll probably resign and have children". (67: Manager - international banking)*

Interestingly none of the women in the sample had needed to give up work or work part-time to care for elderly relatives. However several did feel that their geographical mobility was restricted so that they could be near elderly or infirm parents.

One of the other main approaches to women's occupational choice is that of gender relations, which asserts that women's occupational choice is influenced by men's need to maintain the power relation between men and women. The present research provides some support for gender relations arguments. A number of women in the sample clearly perceived the issue of occupational segregation in these terms.

*I think many people think you need big muscles to do it [carpentry]... I think that is very erroneous, but I think women tend to get that*

*impression, and I think men that work in the building industry, for their own reasons, they try to pretend that it needs special qualities that only men have. I think that's to protect it from being a female environment which is one thing men dread. (6: Carpenter)*

*[I think carpentry is male-dominated] because you earn a lot of money at it. It's too good to share with the women. (32: Carpentry tutor)*

*Probably it [clerical work] wouldn't appeal to a man. It's not dynamic enough... I just think men consider it a very lowly job, and wouldn't go after it, I think that's why. The pay isn't very good, but then for a younger man it wouldn't be that bad. So I think the status is so low, a man just wouldn't want that. (85: Clerical worker)*

Sexual harassment was sometimes used in an attempt to maintain separate occupational spheres for men and women.

*The local dental association used to have an all-male Christmas dinner and then it was decided that women ought to be admitted and the first couple of years a lot of the men didn't like that and the way they dealt with it was by telling dirty jokes to try and embarrass us. (56: Dentist - general practice)*

Power relations in the home were also found to be operating, which may have an indirect effect on occupational choice and development.

*I enrolled myself for the humanities foundation course of the Open University and that caused tremendous ructions with my ex-husband. He couldn't bear it. I used to have to hide my books because he threatened to burn them. (72: Teacher - modern languages)*

Similarly, the gender relations of everyday life outside employment can also have an indirect effect on occupational choice.

*I did start going to college for a while, but coming home late at night, lots of gangs of people around, boys and stuff, I was just scared so I stopped going. (3: Painter & decorator)*

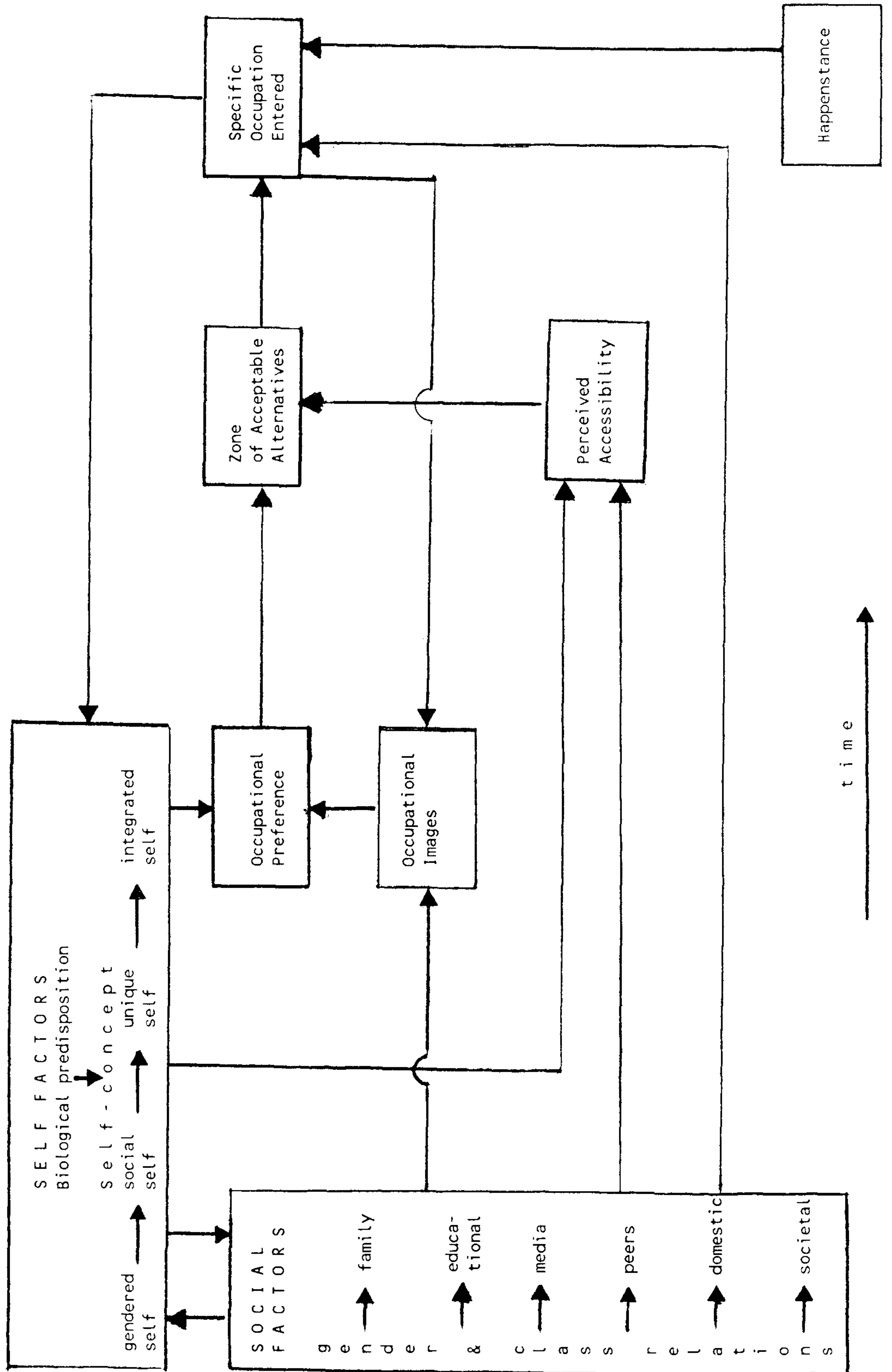
As far as structural theories of women's occupational choice are concerned, many of the ways in which social factors influence women's occupational choice have already been discussed. The present research was not designed to test the macro social theories of women's occupational choice.

Considering the above, it was concluded that an adequate model of women's occupational choice must reflect and integrate both non-gender-specific and woman-specific theories of occupational choice. It must also encompass the following : the conceptualisation of occupational choice as a process; self-concept - occupation matching; the influence of social factors; the influence of chance; biological predisposition; the effect of the family and other socialising forces on the self-concept; developmental change in both childhood and adulthood; the interface of employment and domestic life; and a gender relations perspective.

On the basis of both the present research and consideration of existing theories, a theoretical model of women's occupational choice and entry into male-dominated occupations is proposed. See Figure 10.1.

The model draws upon and is an modification, extension and elaboration of Linda Gottfredson's (1981) theory of occupational choice. However, there is much in the model that is unique. For example, it includes a developmental stage in adulthood; biological predisposition and happenstance have been integrated into the model; social factors are included as a major element in the model; gender relations also has a place in the model; and finally a number of relationships between elements, not specified by Gottfredson, have been delineated.

Figure 10.1 Model of women's occupational choice and entry into male-dominated occupations



The components of the model and their relation to each other are described below.

### **Occupational Choice as a Process**

The fact that occupational choice is a dynamic process is indicated by the time arrow at the bottom of the model. The cumulative on-going effect of developmental changes in the self (for further elaboration, see below); financial pressures; the operation of career routes; age barriers and pressures to remain in one's occupation all contribute to a sense that occupational choice is largely irreversible.

A number of women mentioned the financial costs of changing occupation, including the cost of gaining further educational qualifications or of retraining, and the cost of starting in a lower position in a new occupation.

*I can't really afford the cost of retraining. I don't know if I could afford to start at the bottom of the ladder in any other profession.*  
(79: Personnel officer)

The operation of career routes, that is the fact that certain occupations tend to lead into other occupations, whereas some other occupations do not, adds a further dimension to the dynamic nature of occupational choice.

*I tried to become a midwife actually. They wouldn't have me because I had not been a nurse.* (6: Carpenter)

Sometimes career routes can maintain occupational segregation.

*People progress into programming and analysis quite a lot from working in operations and that is very male-dominated, mostly because its shift systems, and there are legal restrictions on women working shifts, and some companies have an unstated policy of not employing women at all on the operations side, which means there's one less channel through which a woman could get into the job.*  
(33: Computer programmer)

*Traditionally probation officers were always men and this is because it was very much a second career, you know, you found lots of retired policemen, retired army people.* (99: Probation officer)

However, there was evidence that career routes can sometimes have the opposite effect of breaking down segregation.

*There are quite a lot more women driving buses than there are driving underground trains, and this is because bus conductor jobs are being cut, and a lot of the conductors are women. The bus company is obliged to offer them the opportunity to become drivers and some women have taken it up rather than becoming redundant. (15: Underground train driver)*

*The women, most of them came through via the secretarial route of some kind or another, you know, they have become secretaries in firms that sold and discovered they had some sort of ability to understand what they were talking about and to communicate it to other people. (48: Sales representative)*

In addition there are actual and perceived age barriers. Some women felt they formulated an occupational preference "too late".

*If I had my time again... I might have done medicine, but you really have to know at an early age or have someone push you into it or something. (37: Economist)*

Finally there are many forces acting to keep individuals in their present occupation. These forces may be psychological.

*Having nursing qualifications makes me feel trapped. I would like to do something completely different, but feel unable to do this. All I really know is how to nurse etc.. The older I get, the more I feel it is harder to break away from the one thing I know how to do and feel safe doing. (73: Midwife)*

*[I wanted to leave medical school] I wouldn't give in, I think that was it. I thought if I chicken out now I'm never going to live this down. (54: Doctor - paediatrician)*

They may also be financial.

*I didn't want to take the risks that were involved in doing something interesting.. I was actually earning quite good money in all the jobs I was doing and it was definitely being scared of being poor that kept me going at these grudgingly awful jobs. (82: Television researcher)*



## Self Factors

Self factors include both biological disposition, and the self-concept. Biological disposition includes the general level of intelligence (which is, of course also importantly influenced by environmental factors); specific abilities such as artistic and musical talents; and physical condition, for example, height, colour blindness.

The self-concept may be defined as the totality of the way individuals see themselves. The self-concept is formed partly as a result of biological predisposition, but mainly as a result of social factors, and is especially influenced by experiences in the family of origin. School, the media, peers, spouses and children and wider societal forces also play a part in the formation of the self-concept, particularly as the individual becomes older. As adults in the workforce, experiences at work also play a socialising role and may alter the individual's self-concept.

*I had a summer vacation job between A levels and university, I worked in a cheese-packing factory. It was the most soul-destroying job, and I decided then that I couldn't be part of just doing a general job for a wage, just to get by... All I knew was there was no way I could put up with that. So that was probably quite an important job for me. (47: Sales representative)*

The self-concept also has its own internal dynamic, dependent upon psychological maturation.

In early childhood<sup>2</sup> the *gendered self* develops and individuals seek to associate themselves with everything thought to be gender-appropriate. Thus girls begin in early childhood to express preferences for female-dominated occupations, and in doing so enhance their emerging female identity. Whilst Gottfredson appears

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<sup>2</sup> It is not possible to be more specific about the ages at which self-concept changes occur, since the present research was not designed to ascertain this, and since adult recall produces only approximations of ages when childhood behaviour took place.

to contend that this gendered circumscription of the self-concept is largely completed during early childhood and remains static and fixed unless challenged in adulthood by, for example, the inability to find a gender-appropriate job. Alternatively, it is proposed here that whilst early childhood is the time when individuals begin to develop a gendered self-concept and gendered occupational preferences, the circumscription of the self-concept in relation to gender continues throughout childhood, adolescence and adulthood. There are also times, such as adolescence, when gender resurfaces as a particularly salient part of the self, and when girls feel particular pressure to conform to the feminine sex-role. At this time tomboy-like behaviour is typically given up. Similarly preferences for male-dominated occupations may be given up at this time.

*[Up until around age 14 I wanted to be an engineer like my father] I was pretty keen but didn't make any enquiries and this interest fizzled out because it wasn't ladylike and not the sort of thing girls at our school wanted to do. (92: Pattern cutter)*

In late childhood the *social self* develops. At this time individuals begin to perceive themselves in terms of their social class position, and to express occupational preferences congruent with their social class.

*[I had wanted to be an air hostess] As I got older I realised that wasn't the kind of job a girl like me would do. (82: Television researcher)*

Individuals also begin to take their overall academic ability into consideration.

*I wanted to be a vet but I finally realised I wasn't bright enough. (46: Sales executive)*

It is also interesting to note that the decrease in the number wanting to be nurses and the corresponding increase in those wanting to be doctors that occurs in the teenage years may reflect the growing desire for occupations that match the predominantly middle-class and academically able sample.

As in the case of the gendered self, whilst the social self emerges at a point in childhood where social and academic evaluation commence, it is in a continual

state of flux and change throughout an individual's life. The re-evaluation of one's abilities can occur, for example, in the teenage years.

*I always wanted to be a nurse when I was little and then when I did better in my O level exams than I thought I was going to and better than the school thought I was going to do, I changed my mind from being a nurse to being a pharmacist. (55: Dentist - orthodontist)*

It can also occur in adulthood after several years in the labour market.

*I have always been intrigued by law. I can remember, say about the age of 12 or 13, thinking "Gosh how wonderful it would be to be a solicitor, but I'm not nearly intelligent enough, how would you possibly be able to know every law in the country" and totally dismissing it... [Several years later] I was living with an Australian girl and she had a law degree and I decided that's what I want to do. She said "You could do a law degree, I've done a law degree, you could do it". It wasn't really until that moment that I had seriously considered the idea of doing some professional work. (62: Legal executive)*

These self-perceptions of ability could equally be termed self-efficacy (see Chapter Five), thus self-efficacy theory has found its place within a larger theory. It is clear when viewing self-efficacy within the model as a whole, that self-efficacy could not have an over-riding, major influence on occupational choice, which probably explains the largely negative findings reported in Chapter Five.

When individuals reach adolescence they begin to develop what may be termed a *unique self*. At this stage attention becomes focused upon what is unique about oneself - that is, one's specific abilities, interests, and values. These new self-perceptions are integrated into the individual's thinking about occupations. Thus specific abilities play their role in occupational choice.

*[When I was about 16 I wanted to be an applied mathematician] I considered it really because I thought I was capable of it, not because I was really interested in it. (36: Systems analyst)*

Interests also become more salient in adolescence. Although childhood occupational preferences were often based on a direct translation of hobbies or

activities, and as such may be considered to be influenced by interests, in adolescence the influence of interests on occupational choice becomes more sophisticated and carefully considered.

*I really enjoyed maths and I started to think "Well, what can you do with maths" rather than sort of "what jobs are available to me". (42: Chartered accountant)*

Another important facet of the unique self is values, which play an important role in adolescent occupational choice.

*One of the reasons why I went into local government was because I actually saw it as being something using my talents to help other people. (60: Solicitor - local government)*

Values also play a part in defining which occupations women were not prepared to consider.

*I knew that I didn't want to work in defence. That effectively would have closed down all my options because the only jobs you could get at that time actually applying a physics degree were working in defence. And I felt very strongly about that. I wasn't going to have anything to do with any part of the nuclear industry and I wasn't prepared to work in defence. (43: Chartered accountant)*

Elements of the unique self such as interests and values, like female identity and perceived ability / social status, are not fixed once and for all at the end of adolescence, but all continue to change throughout adulthood.

*[Having worked as a nurse for several years] I got very into sort of alternative medicine... I don't really approve of a lot of the hospital system and drugs for instance. So if I had carried on nursing there would have been a conflict there. (7: Carpenter)*

As adults, individuals strive to develop an *integrated self*, or what Van Den Daele (1968) terms "a creative synthesis of personal experience". Individuals attempt to combine and unite existing elements of the self-concept, which are undergoing a continual process of change, with new elements concerning overall life style. Marriage, motherhood, experiences in employment and other life events all alter the way one perceives oneself, which, in turn, alter one's occupational preferences.

*The most career-changing thing was working at the Citizens Advice Bureau, and that politicised me, pushing me further to the left and I became quite a strong socialist for a while. I had had quite a sheltered upbringing and was then going to houses where people had been made redundant, water pouring through the ceiling. I saw such things and got angry, and thought I'd like to play a part in changing all this. It was a great motivating factor. (61: Solicitor - matrimonial)*

*[Having had an emergency hysterectomy] I could no longer have any more children, and I'd actually thought in terms of having another child. So I had to sort of re-evaluate myself then. I had to stop thinking of myself in terms of being a mother, I had to sort of consciously give myself other values. It was very difficult but I just knew I had to do it. (7: Carpenter)*

Given the nature of present day society and its gender relations, the majority of females are likely to develop a gendered self that found the female role as it is presently constructed acceptable; a social self that does not have a great need for status; a unique self made up of traditionally female interests, abilities and values; and an integrated self that feels relatively satisfied with female-dominated types of employment. However a number of individuals do not follow this pattern. Feminine Role Rejectors are unwilling to accept the traditional female identity based on subservience; Prestige Strivers have a great need for status and respect; Maths/Science Careerists have an over-riding interest in the traditionally male areas of mathematics or science; and Nonconformist Transients see their overall lifestyle as one which is at odds with the life of the conventional female. Such women will therefore seek out occupations that match their self-concept and these occupations will tend to be male-dominated.

### **Occupational Images**

People have various occupational images about what different occupations involve, what sort of people undertake them, and what it would be like to work in them. Occupational images are rarely based on fact and are often very inaccurate. Occupational images change as occupational knowledge increases.

*I decided I wanted to be a vet, but lost interest when I realised you had to operate on animals and I didn't want to hurt them. (25: Geologist)*

When individuals enter the labour market they may alter their occupational images as a result of direct experience in an occupation. This is indicated by the arrow (in the model on page 293) from specific occupation entered to occupational images.

*I had this feeling that I would actually like to do something around personnel, I would like to be involved in sort of supportive, counselling type work, and I thought that this was what being a personnel manager in this store would involve. That was a grave error because basically what it is is being the manager's wife in the shop as opposed to at home, and it's really being very caring and supportive of him [so after six months I handed in my notice]. (2: Painter & decorator)*

Occupational images are also subject to change by social factors. For example, when a parent enters a new occupation the child's image of that occupation will, in all probability, change to become more accurate due to increased knowledge about the occupation. Careers education can also alter occupational images. The media portrayal of occupations may also create, maintain, or alter occupational images. Changing proportions of men and women in occupations also affects occupational images, making occupations seem more or less appropriate to one gender, and more or less high status.

### **Compromise**

Occupational preferences are narrowed down to a small number of preferences which constitute the individual's *zone of acceptable alternatives*. It is the *perceived accessibility* of occupational preferences that guides this narrowing down process. The zone of acceptable alternatives is not static or fixed, but rather changes throughout life as occupational preferences and perceived accessibility change. This process of compromise was very evident in the present research.

*I wanted to go into social work or probation work but I wasn't*

*academic enough, I couldn't get the qualifications, so police work was a second choice as it involved some of the same things. (50: Police inspector)*

Perceived accessibility is influenced by both self and social factors. A person with low self-efficacy, who lacked confidence in her abilities would perceive an occupation to be less accessible than someone who did not lack confidence or self-efficacy. Social factors such as changes in competition for jobs may influence perceived accessibility, and in turn, occupational choice.

*[I changed occupations from laboratory work to clerical work] I thought and thought and thought because I did enjoy bacteriology, but I thought its going to be very difficult. First of all I felt insecure in my job, and also I thought its going to be difficult to get another job because I'm not qualified and the job situation had just totally changed from when I first started. There were so many graduates available that hadn't got jobs, what chance did I stand? I'd got the experience, but I didn't think I could compete, too many applicants for each job. (85: Clerical worker)*

Wider social movements, such as the Women's Movement, can influence perceived accessibility by making male-dominated occupations appear more accessible.

*At that time [in the early 1970's] there was a lot of talk about stereotypes, you know, women being stereotypes and women being stuck in certain types of jobs and being housewives, so there were a lot of us trying to break stereotypes in one way or another... I had just come back to England when the Equal Opportunities Act was passed, and the TOPS courses were really doing a lot of propaganda to help women to do nontraditional trades. So in fact the wind was blowing that way. Women wanted to do it, some of us wanted to actually enter that sort of field of training and the government was actually encouraging it. I suppose it was a lot of tokens, one woman here, one woman there, but on the other hand it was really helpful. (14: Car mechanic)*

Additionally, increases in the numbers of women doing male-dominated occupations has the same effect.

*I think something that did influence me was a friend of mine who was working in a house, and said that they had a woman there who was doing carpentry. I think that was like the first realisation that there were women doing things like that. That did have quite an*

*impact on me. It was just a sudden realisation that there was something else to do, that there was an avenue open to us. (1: Painter & decorator)*

### Specific Occupation Entered

The specific occupation an individual enters depends upon the zone of acceptable alternatives, chance happenings or *happenstance*, and social factors. Social factors that influence the specific occupation entered include the influence of other people such as family members. This type of influence is evident when parents forbid a certain course of action.

*I got all the forms [for going into the WRENS] and filled them in, but because I was only seventeen they had to be signed by your parents and my father refused to sign them. He tore them up and threw them in the fire and said "No daughter of mine is going to go into the services". (35: Information systems manager)*

*My parents were dead set against it [me being a nurse], and would not sign the papers to let me live away from home. (30: Estimator / surveyor)*

Parents can, however, also direct women into rather than away from specific occupations.

*My mother was fed up with me doing this job [packaging in a department store]. I thought there were prospects in it but she said "No, you're not going to do that, you're going to do a six month secretarial course". She got the forms and filled them in and said "Sign here", and so, with a little bit of parental pressure, got me on to this secretarial course. (29: Chartered surveyor)*

Although this type of influence is largely confined to the women's teenage years, in some instances parental influence can continue into adulthood.

When a woman marries, her husband may then exert this type of direct influence on the occupation entered.

*I left that job [working in a pub] because my husband didn't like it, he wanted me to leave it... So to keep the peace at home I left. (87: Clerk-typist)*

*[I gave up being an actress when I got married] My husband just got jealous about the whole thing. I mean the idea of going out with an actress was very appealing but being married to one was*



*something different. He got so uptight and neurotic about it that I gave it up.* (81: Recruitment consultant)

The lack of childcare provision is another social factor than can have a direct influence on women's occupational decisions and opportunities.

*I couldn't really see what I was going to do with my daughter if I went back to work. There were no really good local provisions for kids of working mothers.* (48: Sales representative)

*I was thinking of doing a TOPS course, and I was supposed to go along and take a test, but I didn't go because I thought about it and I thought I'm not going to be able to get to that centre at half past eight in the morning. I just couldn't have arranged that sort of childcare.* (7: Carpenter)

Sex discrimination is a further major social factor that has a direct effect on the specific occupation entered.

### **Social Factors**

Social factors include the family of origin, which is the major socialising agent during early childhood; education; the media; peers, friends, and coworkers; domestic factors such as marriage, housework, motherhood and caring for elderly or infirm dependents; and wider societal factors such as legislation, recession, labour shortages, and the Women's Movement. The type of influence that all these social factors exert is dependent upon both gender relations and class relations that exist in society. The present research focused mainly on gender, however there was ample evidence that class relations were also playing an important role, and one which interacted in complex ways with gender relations.

The ways in which social factors may influence occupational images, perceived accessibility and the specific occupation entered were discussed above. Social factors also influence, and are influenced by, the self-concept.

Social factors affect self-concept in a number of ways. For example parental expectations, encouragement and discouragement, positive and negative role modelling can all alter how individuals see themselves. In addition, by providing occupational knowledge and awareness parents and others can alter the self by fostering new interests and abilities. Wider social changes, such as unemployment, can also influence self-perceptions.

*[Having been unemployed long-term] it was a long time before I actually sort of put away the idea of doing something academic. I mean I know its a bit of a strong term to use but it was a bit like a bereavement really, you know, weaning myself away psychologically from this image of myself and thinking about a different image for myself. (6: Carpenter)*

It is also important to note the influence individuals can have on society, which is denoted by the arrow from self factors to social factors in the model of women's occupational choice. Women are not merely pawns of circumstance, subject to social forces, they are also able to take an active role in altering society in small, or larger ways. Simply by entering a male-dominated occupation, a woman is altering the social environment to some degree, perhaps making it easier for those women who come after her. Also by being seen to be a woman in a male-dominated occupation, she may act as a role model for others.

*I've joined a group of women who go into schools to inform girls of the options they have, not just to go into typically female jobs. (30: Estimator/surveyor)*

The present research provided much evidence of women's active struggle to enter male-dominated areas of employment.

*I financed myself through the course by working most evenings and some weekends. (9: Cabinetmaker)*

*I got my first selling job by not telling them that I was a woman. I've got this wonderful name in which all three of my Christian names could double for men's names. So I produced this wonderful C.V. giving them all the information they wanted to know and excluding the fact that I was a woman. Also I use black ink and very spidery handwriting, its very important to get rid of female*

*writing. Because I knew if I could get to the interview, I knew I was good, but it was getting there. (47: Sales representative)*

Women may also influence the social world by challenging sex discrimination.

*I have written to the Equal Opportunities Commission on one occasion when I was applying for deputy headships, and I saw an advertisement that said they wanted a deputy head who was going to run the boys games and football team. I ringed that and wrote in saying this is unfair... My county doesn't allow adverts like that anymore. (69: Headteacher - primary school)*

Other women have tackled sexual harassment.

*The second time I was groped by my staff manager I complained and he was given a final warning that if he laid a hand on one woman he'd be sacked, and he hasn't done so... At senior levels they didn't know this sort of thing happened and they actually commissioned a study to see how many men were doing this. (43: Chartered accountant)*

Others have altered their social environment in a small way by refusing to behave in sex stereotyped ways.

*He expected me to make coffee, but when it was four o' clock and they still hadn't had any I think they got the message. (98: Technical manager)*

It is now time to consider women's experiences at work in male-dominated occupations, experiences which affect both the self-concept and occupational images.

### **Women's experience of working in male-dominated occupations**

Eight socio-psychological forces, derived from the qualitative data, appear to act on and determine women's gender-related experiences at work. These forces may be labelled *women perceived as less competent; role stereotypes; psychological stereotypes; female culture; male culture; shared gender; rarity; and sexuality*. These forces are not independent, but are interlinked and overlapping.

## Women perceived as less competent

The first factor to be considered is that women are perceived as less competent than men, a notion that is at the heart of gender relations theory. Women often reported feeling that they had to prove themselves, a typical comment being that a woman has to be twice as good as any man.

*You have to work harder because you're proving your point all the time... They try and strike sparks of you because you're a woman, they use you as a brickbat within the team, to prove themselves as men. You certainly have to work harder. (47: Sales representative)*

As a consequence of this some women felt that they were being closely watched to see if they made a mistake.

*I feel very conscious of the fact that you're a little bit more on trial, I think, as a woman... You have to prove yourself a little harder. (42: Chartered accountant)*

Another consequence of women being seen as less competent is that they are sometimes given less responsibility, they are more closely supervised, or women's decisions are not trusted and people seek confirmation from a man. Another problem arising from the perception of women as less competent, is that they are often viewed as more junior than they actually are.

*You sometimes find that there are clients who just don't take you seriously. I mean they think you must be so junior because you're a woman. If I ever went anywhere with a male assistant they would always assume that he was in charge of me rather than the other way round. (41: Investment controller)*

Women who succeed in a male-dominated occupation and demonstrate their competence and abilities, especially if they are promoted over men, challenge the assumption that women are less capable, and this may cause men to feel threatened.

*There are people within the organisation who resent the fact that I'm in a reasonably responsible position, and when I was promoted to the job I'm in, there were comments that "There are too many bloody women in this place" that filtered through. (33: Computer programmer)*

Yet paradoxically women's perceived lack of status can leave them with a freedom to ask questions and to ask for help, since in doing so they do not

"lose face", as little was expected of them in the first place.

*I can be quite frank. I can get away sometimes with making mistakes and admitting it, but saying "Would you help me?", whereas a man may not necessarily admit to a mistake. (38: Stockbroker)*

Of course women are not immune from this notion that women are less competent than men, and this sometimes gives rise to a lack of confidence in their ability.

*Sometimes I worry if I'm good enough. I mean a lot of things are telling me I'm good enough, the jobs I've done, and exams, and because people have told us we've got a good little business. But still sometimes I wake up in the morning and think I'm not good enough, you know, I'm not doing it well... It's to do with being a woman in something that has not been seen as a woman's world. Sometimes I wonder, I think "Yes, you do it, but are you really that good?". (14: Car mechanic)*

It is also true that this belief that women are and should be less competent extends outside work into personal relationships.

*This guy I was going out with for a long time, he was in a very similar field, and part of the reason that we eventually parted was that I was really more successful than he was. (22: Physicist)*

### **Role stereotypes**

The second force is that of role stereotypes. Women at work tend to be perceived in terms of women's traditional work roles as secretaries, and receptionists. Women in senior positions reported being expected to make coffee and to take minutes. Similarly, in a hospital setting, women doctors will often be perceived as nurses. These situations could also be explained as women been seen as more junior, in line with the view that women are less competent. It also bears some similarity to Kanter's (1977) notion of *status levelling* in which a women's perceived status is downgraded to match her secondary status as a woman. Women working in male-dominated occupations also reported feeling that they were perceived as wives and mothers or potential wives and mothers. This sometimes manifested itself in the clients expectations

that women working in the manual trades would charge less than men, since it was assumed that they were working for *pin money* rather than being breadwinners. Another consequence of role stereotypes is that people will expect to find a man in male-dominated jobs since it is typically men who are found in such roles.

*We've had instances where we've had an engineer come in to do some work on the computer and he's stuck his head round the door, "Excuse me, please could you tell me where I could find the computer manager?", and I've usually said "Can I help you?". "No, I'm looking for a man, dear". (35: Information systems manager)*

### **Psychological stereotypes**

The third and related force is that of psychological stereotypes. Women often reported feeling that they were expected to behave in stereotypically female ways. This notion is similar to Kanter's (1977) concept of assimilation, and Gutek's (1985) concept of sex-role spillover. The women in the present research reported being perceived as incompetent, emotional, kind and gentle, compassionate, friendly, subservient, physically weak, clean and tidy, and concerned about their appearance.

### **Female culture**

The fourth socio-psychological force is termed *female culture*. Whilst psychological stereotypes are what is felt to be inaccurate perceptions of the ways in which women differ from men, female culture is essentially positive stereotypes about women, that are felt to be accurate and to reflect the ways in which women actually differ from men. Obviously, one woman's psychological stereotype may be another woman's aspect of female culture. The elements of female culture identified by the women in the present research included the views that women are more caring, more approachable, relate well to people, have more empathy, are interested in people, are more sympathetic, co-operative rather than competitive, less concerned with status, are more honest with themselves, more conscientious, pay more attention to detail, are

more patient, have greater manual dexterity and are cleaner and more tidy.

### Male culture

Male culture is women's view of how men behave at work, which may be based on either stereotypes or reality. The women in the present sample held a variety of views about men including the view that they are immature, sloppy, not honest with themselves, unsociable, self-centred, concerned with status, competitive, full of bravado.

It might be more appropriate to speak of male cultures, since the particular expression of male culture will vary with the setting. Paul Willis (1977, 1979) has described the elements of male, shop-floor culture as including toughness and machismo, intimidatory humour and badinage. This type of male culture was also experienced by some of the women in manual male-dominated occupations.

*There's a very macho atmosphere. I mean I'm no prude, I swear myself sometimes, but, you know, its "Fuck this, fuck that, fuck the other" and in a very aggressive way. You get that sort of thing being bandied about. I mean the way they (male coworkers) generally interact, its a bit difficult to describe, its full of aggression really. Its full of sort of controlled aggression which you feel could break out at any moment. They jostle around and pretend to punch one another in the stomach and if someone's passing by they fall back on them, that kind of thing. Its not a nice atmosphere at all. They just don't seem to care about one another's feelings, you know. They interact in a sort of very violent way, and I just find it a very strained atmosphere. (6: Carpenter)*

Two important elements of male culture are that it is anti-women, and that women are viewed as sex objects. It is clearly a difficult experience for women to work in jobs where such aspects of male culture operate.

*The guys had in their lockers all these nudes and sex posters. I just felt I wasn't at all at ease. (8: Cabinetmaker)*

*Its not being grabbed or physically harassed, but it is being leered at. You are working and they suddenly look at you or talk to you with that sort of look in their eye... Its just uncomfortable. You feel all day long that you represent for them, that somewhere in their mind*

*you are a sexual object working there, although you've got overalls on and you're doing the same job as them. Its always that feeling that underneath you're a woman for them to treat you as they treat any other woman, you know, like "Good for a fuck", that sort of crudity.* (14: Car mechanic)

### **Shared gender**

The next force, *shared gender*, refers to the fact that because women share the same gender they are able to relate to one another, to understand one another and to see each other's perspective to a greater extent than people of opposing genders.

*[I like working in an all women gang], I much prefer it. I think you've got support, and they seem to notice the same things as I notice, that if someone's fed up with something, we all help each other really.* (1: Painter & decorator)

*With other women, there is an understanding that exists between women... Women have an unspoken bond, I think, that helps.* (58: Solicitor - matrimonial)

This force also plays a role in interactions with clients as well as coworkers.

*In matrimonial matters it is the woman who usually takes the initiative and a lot of them want to be represented and advised by a woman... Often the first thing they say is "I couldn't have talked about this to a man".* (61: Solicitor - matrimonial)

Men also have shared perspectives and mutual understandings, and these can create problems for women working in male-dominated occupations in that it excludes them and makes them feel like outsiders, unable to fully participate in some formal and informal aspects of life in the workplace.

*Men can get to know each other simply because they are men. If they haven't been to the same school, they've been to the same kind of schools, they play the same sports and just by the virtue of their sex they are on the same wavelength, and they see the world in a similar way. A woman, unless she is a very unusual sort of woman, just doesn't have quite the same thing. You can't join in in the same way.* (29: Chartered surveyor)

*We are specifically excluded from particular activities, from joining in with the lads. They arrange a lot of sports, all the sports would be male-oriented, and things are organised so you are excluded from that sort of social activity. For the first time in my life I find that I walk*



*into a room and someone's telling a dirty joke and everyone will shut up. You get to feel very ostracised when people shut up when you walk in a room. (43: Chartered accountant)*

## Rarity

The next force is rarity. Women in male-dominated occupations are highly visible, and are more easily remembered, which is often an advantage.

*You tend to stick in people's minds more because you're an exception. (42: Chartered accountant)*

However this visibility can also cause women to feel self-conscious.

*You are immediately the centre of attention. Everybody knows you within 20 seconds. You are always in focus. If you decide to wear a skirt one day everybody has something to say about it. You can never be anonymous, you can never hide. (15: Underground train driver)*

*I always felt like a sore thumb. (19: mechanical engineer)*

## Sexuality

The final force is sexuality. Male-dominated occupations may be highly sexualised (Gutek & Dunwoody, 1987), and sexuality operates in several different ways. It may be used as a way of dealing with threat that women pose.

*The two things they say most is either you're a lesbian, a dyke, because you're not married, or that you slept with the commander to get promotion. It solves their problem to think of you in that way because they feel less threatened. (50: Police inspector)*

The presence of women may be seen as arousing and instigating a sexual atmosphere

*Something else they said at the interview was I wasn't to dress in such a manner as to reduce productivity. (25: Geologist)*

Similarly the introduction of women into a workplace sometimes gave rise to concerns about possible sexual relationships.

*When I was first married and applied for jobs in this area I was blatantly discriminated against... "What will your husband say about you meeting male clients?". (46: Sales executive)*

Sometimes women are expected to use their sexuality for the benefit of the

organisation.

*They [male coworkers and superiors] tend to feel that women should fill the role of going out to people that are slightly difficult, and sort of sit there showing rather too much leg and say "Go on, tell me".*  
(43: Chartered accountant)

Often, however, sexuality was seen as a double-edged sword.

*Sometimes they won't go out to lunch with you to talk about a problem because that would be unseemly, someone might see us etc.. Other times they will take you out to lunch when they wouldn't have taken a man because they like to be seen with an attractive, intelligent, skirted person or something.* (31: Buildings maintenance manager)

It can be seen, therefore, that women's experiences in male-dominated occupations are multi-determined and subject to a number of inter-related forces. These experiences may influence both the way a woman perceives herself, and the image she holds of that occupation, which will, in turn, influence the occupational choice process. Therefore women's experiences at work may be seen as an integral part of the occupational choice process, as delineated in Model 10.1.

# CHAPTER ELEVEN

## Conclusions

To summarise the work presented in this thesis : firstly existing literature was reviewed, including that on the social context of women's employment; on non-gender-specific theories of occupational choice; on theories of women's occupational choice; and on women's choice of and experiences in male-dominated occupations. Secondly, a piece of research is presented in which the self-efficacy expectations and occupational preferences of females and males are examined. Self-efficacy theory was found to be wanting as a theory of women's occupational choice. Thirdly, the main study was presented, which was an attempt to provide data from which a more global, integrated model of women's occupational choice and entry into male-dominated occupations could be derived.

In the course of this research, the seven questions outlined at the beginning of this thesis have been answered. In brief, it was found that :

- 1 A large number of interrelated psychological and social factors determine the type of occupation a woman enters. See model in Chapter Ten.
- 2 Non-gender-specific theories of occupational choice are not

sufficient to explain women's occupational choice, although they certainly have something to contribute to the understanding of it. See Chapters Two and Ten.

- 3 Gendered theories of women's occupational choice alone fail to provide a satisfactory explanation of women's occupational choice, although they also have an important contribution to make. See Chapters Three and Ten.
- 4 It is possible, and indeed desirable, to integrate existing theories and concepts to produce an all-encompassing model of women's occupational choice. See Chapter Ten.
- 5 A variety of psychological and social factors underlie a woman's decision to enter a male-dominated occupation. See Chapters Four, Eight and Ten.
- 6 The nature of women's experiences in male-dominated fields of employment is varied and complex. See Chapters Four, Nine and Ten.
- 7 Women in different types of male-dominated occupation were found to differ substantially in the factors underlying their occupational choice, and to differ to a lesser degree in their experiences at work. See Chapters Eight, Nine and Ten.

The model that was proposed in Chapter Ten, and the research upon which it was based, have several strengths. As Linda Clarke (1980) pointed out, there is a need for more initial qualitative research to define the problem area and to suggest important areas that may subsequently be subjected to quantitative study. The present research not only utilised a qualitative methodology, but the study was designed so as to also provide quantitative data to compliment and substantiate the qualitative data. This combining of different types of data was found to be particularly illuminating when delineating the differences between women in different types of male-dominated occupation. One of the most important contributions of the present research is its investigation and

comparison of women in three types of male-dominated occupation : manual; non-manual; and transitional. Existing research has typically portrayed women in many different types of male-dominated occupation as a homogenous, unified group. The present research has clearly demonstrated that this is not the case. Another strong point of the present research is its use of a control group of women in female-dominated occupations, something which is rarely included in studies of women in manual male-dominated occupations. Other important aspects of the research include the fact that it took a developmental approach which extended well into adult life, allowing the investigation of the dynamic nature of occupational choice and of occupational development in adulthood, and of the interface of domestic life and employment. The resultant model builds on and extends the seminal work of Linda Gottfredson, and integrates and synthesises elements of both non-gender-specific and woman-specific theories, such that the model suffers from neither polarisation nor androcentrism. Also, unlike some other theories, the model is able to explain women's choice of a male-dominated occupation as well as gender-typical occupational choices.

Like any piece of research, the present research has some weak points and limitations. Firstly it was somewhat regrettable that constraints on numbers did not allow a second control group of women in manual female-dominated occupations to be included. The fact that the women in the manual male-dominated group turned out to be relatively well-educated and from predominantly middle-class backgrounds meant that the overall sample was unrepresentative of women in all positions in the class structure. It was also apparent that the measure of social class used, the manual/non-manual classification, was too broad, rendering it impossible to analyze more subtle differences in women's social class background which may have been of some importance. Another limitation of the present research is the relatively small number of women with children in the sample. This inevitably influenced the confidence with which any pronouncements about the effects of motherhood on

occupational choice could be made. Also, although the sample contained women up to the age of 59, the majority of the Subjects were in their twenties and thirties, therefore the changes in occupational choice that occur in the under-researched stage of late adulthood remain largely uninvestigated. The failure of the present research to include any black women is also somewhat unfortunate, given that the experiences of such women, and the effects of racism on occupational choice are relatively under-researched. One final limitation of the research is its use of a large number of statistical tests. This is problematic because a number of significant results would have been obtained by chance alone. This thereby reduces the degree of certainty with which the findings may be stated.

### **Theoretical Implications**

In the present research it has been demonstrated that it is both possible and desirable to utilise a model of women's occupational choice that integrates non-gender-specific and woman-specific theories, and that encompasses both social and psychological variables, and their interaction. It is proposed that, in future, researchers might usefully place their research within the framework of the model presented here. This would avoid one of the major weaknesses that exists in the fields of research on women's occupational choice and of research on women's entry into male-dominated occupations, that research data are collected with reference to a narrow theory, or to no theory at all. This renders research highly fragmented, disjointed and non-comparable. It is felt that research would proceed more effectively if research data and narrow theories were discussed and evaluated in terms of a global model such as the one presented in Chapter Ten.

A further important theoretical implication of the present research is that future research must incorporate an awareness that women in different types of male-dominated occupation are heterogenous with regard to the determinants of their occupational choice and to a lesser degree with regard to their experiences at

work. It is thus clearly inadvisable to generalise from women in one type of male-dominated occupation to those in all other types. Further, conflicting research data might be clarified when differences between women in different types of male-dominated occupation are taken into consideration.

Before the model presented here may be used as a theoretical framework for future research, it needs to be subjected to further empirical testing to confirm its validity. It is suggested that, now that qualitative research (in conjunction with quantitative research) has allowed the broad exploration of the research topic from which the model was produced, the model might usefully be tested quantitatively. Future researchers might usefully employ a very large, representative sample of women which would permit multivariate statistical analysis. It may be necessary to restrict the research to a small number of occupations in order to achieve such a sample, and to recruit via employers. It is felt that it is important to include women in manual male-dominated occupations in any further research, the difficulties of recruiting a large, representative sample of such women notwithstanding. Whilst retrospective, or concurrent research will provide useful data, the ideal study would be longitudinal in nature.

Future research might also usefully counteract the limitations mentioned above by including more women who are mothers, more black women, more older women and more women in manual occupations and from lower social class backgrounds. It might also include a more finely-tuned measure of social class background, and also a measure of changes in parental social class.

The typology of women in male-dominated occupations, in which they are characterised as Feminine Role Rejectors, Nonconformist Transients, Maths/Science Careerists and Prestige Strivers, also requires further investigation, elaboration and validation. It would be possible to construct a questionnaire, based on the present research, to measure Feminine Role Rejection,

Nonconformist Transience, Maths/Science Careerism and Prestige Striving. Following completion of the questionnaire by women in a variety of male-dominated occupations, factor analytic techniques may be used to elucidate and verify the existence of the four dimensions or types. Such research would also indicate whether the most accurate conceptualisation is one of types or dimensions.

Another important direction for future research would be to look at occupational choice in men, and the ways in which their occupational choices are influenced by their gender, since the breakdown of occupational segregation depends as much on men entering female-dominated occupations as it does on women entering male-dominated ones. Whilst the non-gender-specific theories reviewed in Chapter Two are largely based on males and male behaviour, they fail to address the particular effects of masculinity and prescribed sex roles on male's occupational choice, whereas notions of femininity and sex roles are typically central to theories of women's occupational choice. There is a growing recognition of the need for such an approach (e.g. Fitzgerald & Cherpas, 1985), but, as yet, there has been only one attempt to investigate the influence of the masculine sex role on occupational choice - Paul Willis's (1977) work on "How working class lads get working class jobs". Whilst this is a useful piece of work, it is somewhat limited in its scope in terms of the age and social class of those studied. Further research in this vein would be welcomed. It is also important that the present model be tested on males. It was not derived from research on males (although it does draw upon the non-gender-specific theories of occupational choice which were based on research on males), therefore it cannot claim to be a theory of men's, as well as women's, occupational choice. However, it may well be able to explain male occupational choice, as any adequate theory should be able to account for the behaviour of all human beings. Only further research will verify this, or find that some modification of the model is needed to explain the male case. Further research is also needed on the ways in which men's behaviour at work and in the home influences



women's occupational choice. The present research looked at this indirectly, through women's reports of male influence, but to study this more directly would also be useful, as would the study of the way in which female behaviour affects men's occupational choice.

Finally, now, at the beginning of the so-called *decade of women* (Naisbitt & Aburdene, 1990), it would prove very interesting to study the effects of the macro-social factor, demographic changes and the shortage of school leavers that it brings, on the occupational choices of individual women.

### **Practical and Policy Implications**

Whilst the present research was designed for its theoretical contribution, it also suggests some ways by which to assist the breakdown of occupational segregation and to encourage and facilitate women's entry into male-dominated occupations.

Before presenting the practical and policy implications of the research, it is necessary to clarify why it is important to breakdown occupational segregation. Firstly, one of the main reasons is that occupational segregation is a major determinant of women's unequal pay. Male-dominated occupations are invariably better paid than female-dominated ones, therefore the entry of large numbers of women into male-dominated occupations is likely to aid women's economic equality with men. Secondly, it is wasteful of human resources that women who have the requisite talents and abilities for male-dominated occupations are not in those occupations because of the external and internal constraints outlined in the model of women's occupational choice presented in Chapter Ten. The third reason why it would be beneficial to decrease occupational segregation is because its existence means that many women who might have derived a great deal of job satisfaction from undertaking male-dominated occupations are denied this and confined to female-dominated occupations that they may find less satisfying. Of course, the arguments about the waste of human resources and possible lack of job satisfaction that results

from occupational segregation apply equally to men. It has also been suggested that the breakdown of occupational segregation may well bring about a breakdown of sex roles in life in general.

The present research indicates that occupational choice and the forces that maintain occupational segregation are highly complex involving a large number of inter-related factors. It is therefore unlikely that any one measure would substantially alter occupational segregation. It is apparent that a number of different measures will be required if occupational segregation is to be substantially reduced.

The model of women's occupational choice derived from the present research indicates the different points at which intervention might take place. These are at those places where social factors (as interventions may be classified as social factors) influence other aspects of the occupational choice process : that is where social factors affect self factors; occupational images; perceived accessibility; and specific occupation entered.

Looking firstly at the ways in which social factors affect self factors, it was found that there are four types of women who enter male-dominated occupations: Feminine Role Rejectors; Nonconformist Transients; Maths/Science Careerists; and Prestige Strivers. Increasing the numbers of women who fall into these categories would be one strategy for influencing the number of women in male-dominated occupations.

There are two ways in which the numbers of Feminine Role Rejectors might be increased. This may be achieved via the continued discussion and information about women's position in society presented through all forms of the media, which may result in women becoming conscious of their disadvantaged situation, thereby fostering Feminine Role Rejection. Single-sex or mixed discussion groups or *gender awareness* courses in schools and workplaces may have a similar

*consciousness raising* effect.

It is not clear how the numbers of Nonconformist Transients might be increased. Also, it is possible that the disadvantages of Nonconformist Transience (e.g. unemployment, mental breakdowns, unhappiness at school) might outweigh the advantages of more women entering male-dominated areas of employment.

There appears to be a large amount of scope for increasing the numbers of Maths/Science Careerists. There exists quite a large body of research on educational measures aimed at fostering maths and science interest and achievement in females, such as the work of Jan Harding (1983), Pat Mahoney (1985), Gaby Weiner (1985), Judith Whyte (Whyte *et al.*, 1985; Whyte, 1986), and Leone Burton (1986). These researchers suggest that teachers should give active encouragement to girls in maths and science classes. They also point out the usefulness of classroom observations to provide feedback for teachers of their differential treatment of boys and girls. Teachers are further exhorted to tackle and counter boy's typically greater demands for teacher attention. It is also suggested that teachers exercise supervision to prevent boys from monopolising science and computing equipment. In addition maths and science textbooks and materials could usefully be examined for their portrayal of girls and women, and where such materials are found to be sexist, it is suggested that they be replaced. *Girl-friendly* topics might also be introduced, that is topics that relate to the common experiences of girls. There is some evidence that the use of single-sex classes in maths and science might be beneficial to girls. Finally, and in a similar vein, girls-only computer clubs and extra-curricula science clubs for girls have been suggested.

It should also be noted, in this context, that the number of traditionally male subjects studied at school had an important bearing on later entry into male-dominated occupations. Therefore measures, such as the careful examination of the option system, should be taken to ensure that girls are encouraged and

not discouraged from pursuing traditionally male subjects.

It is somewhat unclear how the numbers of Prestige Strivers might be increased. Extended provision of high-status schooling, such as independent and grammar schools, may have this effect, but the effect of selective schooling on those who find themselves in its corollary - low-status / secondary modern schools - must also be considered, and this may well tip the balance away from overall benefit. It is also important to note that in the transitional occupations, where most Prestige Strivers are to be found, the proportion of women and men at entry level are typically approximately equal, and this may indicate that the expected proportion of female Prestige Strivers has already been achieved.

Ultimately, it should not be necessary for women who enter male-dominated occupations to be these particular types of women. Concern should also be focused on the majority of women, not just *Pioneers*, for as Cynthia Cockburn (1985) points out "The days of this Frontier have gone on too long already". To this end, the measures mentioned below may facilitate women's entry into male-dominated occupations whether or not they become Feminine Role Rejectors, Nonconformist Transients, Maths/Science Careerists or Prestige Strivers.

There is some scope for individuals - parents, teachers and others - to act, for they may influence self-factors in such a way as to make the choice of a male-dominated occupation more likely. They may, for example, encourage and foster traditionally male as well as traditionally female interests, values, and abilities in females during childhood and adolescence. They are also in a position to influence, to some degree female's beliefs in their own abilities, their feelings of confidence and mastery, and their self-efficacy.

As well as affecting self factors, social factors play a major role in influencing the occupational images people hold. These images are not immutable, and

may be altered in a number of ways. Firstly, careers teachers and advisors have a role to play here in disseminating accurate occupational knowledge to dispel inaccurate images based on sexual stereotypes. Workplace visits and work placements may be particularly effective in promoting accurate occupational images, although films and written material would also be useful in this context. Talks by those working in non-gender-typical employment may prove to be a potent way of altering perceptions of the sex-type of different occupations. Employers pamphlets portraying women in male-dominated occupations may also alter occupational images such that an occupation may then be seen as appropriate for both men and women. Similarly, media portrayals of people in work situations may both create and alter occupational images. Most importantly, actual changes in the sex-composition of occupations can alter occupational images, so long as these changes become public knowledge. Measures taken in the workplace, such as the removal of pin-ups, and effective outlawing of sexual and other forms of harassment of women in male-dominated occupations, can make women's experiences in such occupations more positive, and if this more positive experience is conveyed to those outside the occupation, this can then alter the image of the occupation.

The use of those in gender-atypical employment as role models in careers education and in the media not only affects occupational images, as described above, but also affect perceived accessibility. To see a woman doing a male-dominated job, is to know that it is possible for women to enter such jobs. Recruitment advertising specifically aimed at women can also increase perceptions of accessibility for women. Women-only training schemes are a further measure that may prove particularly useful. For example, women with an interest in a particular male-dominated occupation are likely to perceive a women-only training course to be highly accessible to them, whereas they may perceive the occupation itself as being somewhat inaccessible. Having completed the course the perceived accessibility of the male-dominated occupation is increased as a result of their increased skills, confidence and knowledge. Whilst

it is legal to provide training courses for women-only (or for men-only) where there is evidence of under-representation, each and every proposed course has to go through the slow and cumbersome process of seeking official dispensation under the Sex Discrimination Act. Facilitating the setting up of women-only courses and increased funding for them (as existing courses are limited in number and over-subscribed) would aid women's entry into male-dominated occupations. The final way in which social factors can influence perceived accessibility is by the introduction of measures to combat sex discrimination. This would render male-dominated occupations truly more accessible to women, and this would, in turn affect perceived accessibility and ultimately occupational choice. Such measures are discussed below.

There are two main ways in which social factors influence the specific occupation entered: firstly through direct and indirect discrimination in employment and secondly through the domestic constraints that women face which limit their ability to undertake certain types of work, at least as such work is presently constructed.

There are several different approaches which may be used to counter sex discrimination. One obvious answer is further and tighter legislation. The inadequacies of existing sex discrimination legislation and the personal costs to the complainant of sex discrimination have recently been highlighted (Taking Liberties, 1990), and there is indeed much scope for improving this legislation. However, as Sadie Robarts and her colleagues point out, giving the example of legislation pertaining to the employment of disabled people, that has largely failed to prevent discrimination, a legislative framework is not in itself enough (Robarts *et al.*, 1981). They conclude that what is also needed is some form of enforcement, if legislation is to influence practice in the workplace. This enforcement could come in the form of increasing the number of investigations undertaken by the Equal Opportunities Commission and by making the recommendations of such investigations legally enforceable. Robarts *et al.*

(1981) further suggest that the Government introduce a form of *contracts compliance* in which all companies receiving Government contracts are required to implement positive action programmes designed to improve the position of women and minority group workers. Although a substantial number of employers now call themselves *Equal Opportunities Employers*, this is often a superficial declaration (Aitkenhead & Gorman, 1988) rather than a statement based on the provision of an adequate positive action programme, such as that described in Chapter One.

As far as domestic factors are concerned there is also much scope for improving women's situation. Firstly, there is a pressing need for increased childcare provision. This provision should occur both in the workplace and in the community, and be available for school-age as well as pre-school children. These childcare facilities need to be affordable to women (and their partners), therefore measures such as childcare tax allowances and childcare vouchers are to be welcomed. A further measure to aid women's entry into employment in general, and male-dominated occupations in particular, is the provision of parental leave to enable parents to take time off when a child is ill and when childcare arrangements breakdown. There is also room for improvement in maternity leave arrangements.

In addition to extended childcare provision, employment must also be restructured to fit the needs of parents (and those caring for elderly dependents). Such measures might include shorter working hours; part-time employment with no loss of rights and benefits and with *pro rata* pay; flexi-time; career breaks with guaranteed continuity upon return to employment; the extension of job sharing; and increased opportunities for working from home. For those women (and men) who wish to remain out of the labour market for several years, the increased provision of *Return to Employment* courses would be welcomed.

It is also apparent that men's involvement in childcare and housework must be increased, as if women's domestic burden could be lessened this would enable them to be less constrained in the types of employment they could consider entering. To this end, paternity and parental leave would be welcomed. Restrictions on overtime for both men and women with compulsory time-in-lieu in place of overtime payments might also facilitate male domestic involvement.

It should be noted that, whilst the model can suggest where interventions might take place and what the nature of such interventions might be, it gives no indication of weighting, that is which type of intervention might be the most effective. Therefore, it is suggested that the implementation of interventions be carefully monitored and evaluated to provide such information.

At the time of writing, demographic changes and the anticipated imminent shortage of school leavers means that attitudes to women and employment are in a state of flux. In 1989 Norman Fowler, Secretary of State for Employment declared that "We are standing on the threshold of a new revolution... not so much about the Rights of Man as the Rights of Women", whereas just ten years earlier Patrick Jenkin, the then Secretary of State for Health and Social Security, decreed "If God had intended us to have equal rights to go out to work and to behave equally, he would not have created man and woman" (Fairweather, 1990).

However, there is a real danger that improvements in women's employment situation brought about by the shortage of school leavers will be largely cosmetic and that the position of women will remain largely static (Whitfield, 1990). Women may simply end up in low-paid, low status jobs, and occupational segregation may remain unchanged. Indeed, in the 1990 edition of *Social Trends* it is reported that the majority of men and women still believe a car mechanics job is only suitable for men, and a secretaries job is only suitable for women (Clement, B., 1990). There is also a risk that improvements may be confined



to a relatively small elite of women in managerial jobs. In addition improvements may be confined to the more prosperous South since existing evidence reveals that the increase in women's jobs in East Anglia, the South-west and South-east is more than double that in the North, North-west and Midlands (Whitfield, 1990). The same research also found that several male-dominated occupations, such as computing, are attracting relatively large numbers of women in the South, but remain male-dominated in the North. Apparent progress may also be merely a short-term response to labour shortages that will disappear once the teenage population starts to rise in 1995 and reaches its previous 1971 level by the year 2,000 (Fairweather, 1990).

What is clear, however, is that the 'nineties will be a time of change for women, and it is at such times of change when the sexual division of labour, being resilient but not unshakable, is at its weakest. It is therefore a time when women and all those interested in improving women's situation in the workplace and in dismantling occupational segregation, must strive to implement some of the measures outlined above, and to consolidate them so that advances are not lost when future demographic change renders women's labour expendable. If this optimistic scenario should materialise, it is possible that, at some point in the future, gender may lose its overarching influence on the occupational choice process.

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# Appendix A

## Definition of Terms

**Work :** In the psychological literature work is defined as "activity for a purpose beyond the pleasure of its own execution" (Jahoda, 1982). This definition of work could arguably include women's unpaid domestic work in the home. For this reason the term *paid work* is generally used in this thesis to differentiate it from women's unpaid domestic work (housework, childcare and caring for elderly or disabled relatives).

**Employment :** This term refers to paid work, including self-employment.

**Occupation :** An occupation is a particular type of work.

**Career :** A career is defined as "A profession affording opportunities for advancement" (Oxford English Dictionary). Because the work history of many women (and also that of some men) does not conform to the definition of a career outlined above, the term career is used sparingly in this thesis. It is, however, used in phrases such as *career education* and *careers counselling*, to mean education or counselling with regard to future occupation or occupational development, since these phrases are in common usage.

**Vocation :** The term *vocation* is also used sparingly because it implies a level of commitment or devotion to one's occupation which is absent for many workers. It is nevertheless used in phrases such as *vocational education* to mean education pertaining to employment.

**Job :** The term *job* is used to signify particular employment within an



occupation.

**Economic activity :** This term includes employment and official unemployment.

**Occupational preference :** This term refers to the occupation an individual desires or aspires to enter.

**Occupational entry :** *Occupational entry* refers to the occupation an individual actually enters.

**Occupational choice :** The phrase *occupational choice* is used in this thesis to refer to the whole process, from occupational preferences in early childhood through to occupational preferences and decisions made in adulthood and occupational entry. It is recognised that the term occupational choice is not uncontentious since for some individuals their occupational placement is more the result of allocation than choice. It is used here because of its common usage in the research literature.

**Occupational segregation :** Occupational segregation is the extent to which men and women do different types of paid work. Horizontal segregation is where women and men are working in different types of occupations. Vertical segregation is where one sex is generally working in higher level positions and the other sex is generally to be found in lower level positions within the same occupation.

**Male-dominated / female-dominated :** A *male-dominated* occupation is one in which there is occupational segregation such that the majority of workers in that occupation are male. A *female-dominated* occupation is one in which the majority of workers are women. Opinions vary about where the cutoff point should be above which an occupation is gender-dominated, but as far as the research presented here is concerned the crucial point above which an

occupation is designated gender-dominated is two thirds (66.7 per cent).

**Gender-typical / gender-atypical :** For women male-dominated occupations are gender-atypical occupations and female-dominated occupations are gender-typical. The reverse is true for men.

**Traditionally male / traditionally female :** A traditionally male activity is one that has been and is typically done by males. When it is possible to ascertain figures a traditionally male activity is one in which over two thirds of those who undertake it are male. Likewise, a traditionally female activity is one which is typically done by females. The terms *traditionally male* and *traditionally female* will generally be used when referring to hobbies and activities, school subjects and college courses, whilst the terms *male-dominated* and *female-dominated* will typically be used when referring to occupations.

**Pioneer / Traditional :** A *Pioneer* is a woman who is studying a traditionally male college course; who has an occupational preference for a male-dominated occupation; or who works in a male-dominated occupation. A *Traditional* is a woman who is studying a traditionally female college course; who has an occupational preference for a female-dominated occupation; or who is employed in a female-dominated occupation.

# Appendix B

## Occupational Questionnaire

Please fill in the following details :

Age (in years) \_\_\_\_\_

Course/Department \_\_\_\_\_

Sex : Male/Female (delete as appropriate)

1. **Chartered Accountant** : After doing a degree (in any subject), prospective chartered accountants enter into a three year training contract with an accountancy firm, working as trainee accountants and studying part-time (block release and in their own time) for examinations on accounting, auditing, taxation, law, statistics and computer systems. The bulk of a chartered accountant's work is auditing and taxation. Auditing means verifying and analyzing clients' books and ensuring that the annual balance sheet presents a "true and fair" picture of the clients' financial affairs. Accountants also advise their clients on personal and business financial matters.

How confident are you that you could do the job of a chartered accountant ?  
Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence											Complete
at all											confidence
0	1	2	3	4	5	6	7	8	9	10	

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a chartered accountant ?  
Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
0	1	2	3	4	5	6	7	8	9	10	

In the past few years have you ever thought about becoming a chartered accountant ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very
	0	1	2	3	4	5	6	7	8	9	seriously
											10

**2. Primary School Teacher :** Graduates wishing to become primary school teachers must take a one year postgraduate course in education which includes both academic work and practical experiences in the classroom. Primary school teachers normally teach the whole range of subjects to their own class. Subjects are integrated into "projects" and the emphasis is on keeping alive and stimulating children's natural enthusiasm for learning. Teachers must use children's curiosity and guide them effectively through planned courses which the children enjoy and in which they acquire knowledge. An understanding of children's intellectual, social and emotional development is required.

How confident are you that you could do the job of a primary school teacher? Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence											Complete
at all	0	1	2	3	4	5	6	7	8	9	confidence
											10

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a primary school teacher ? Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
	0	1	2	3	4	5	6	7	8	9	10

In the past few years have you ever thought about becoming a primary school teacher ? Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very
	0	1	2	3	4	5	6	7	8	9	seriously
											10

3. **Personnel Manager** : Graduates (in any subject) who wish to become personnel managers are required to complete three years of part-time study and examinations, whilst working in a personnel department. Personnel managers are part of the management team. Their primary aim is the efficient utilisation of human resources. Their work involves recruitment, training, management development (that is assessing individuals' potential and identifying and planning their career paths accordingly), manpower planning, wage and salary administration (this involves detailed study of the tasks that make up individual jobs within the organisation in order to establish salary gradings), industrial relations, and employee services (including safety, health, welfare and amenities).

How confident are you that you could do the job of a personnel manager ?  
Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence											Complete
at all											confidence
	0	1	2	3	4	5	6	7	8	9	10

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a personnel manager ?  
Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
	0	1	2	3	4	5	6	7	8	9	10

In the past few years have you ever thought about becoming a personnel manager ?  
Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very
	0	1	2	3	4	5	6	7	8	9	seriously
											10

4. **State Registered Nurse** : The training of a state registered nurse lasts three years (at age 18+). It takes place at a school of nursing, based in a hospital, and has a large element of on the job training, including training in the various nursing specialities - geriatric, psychiatric, obstetric, and community nursing. The work of an S.R.N. involves practical nursing (making beds, taking temperatures, making patients comfortable), administering drugs, keeping records on patients and knowing at all times what, if any, changes have occurred in the patient's

condition, discussing patients' condition with relatives, and using highly sophisticated machines on the wards and in coronary and other intensive care units.

How confident are you that you could do the job of a state registered nurse ? Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence											Complete
at all											confidence
0	1	2	3	4	5	6	7	8	9	10	

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a state registered nurse ? Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
0	1	2	3	4	5	6	7	8	9	10	

In the past few years have you ever thought about becoming a state registered nurse ? Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very
0	1	2	3	4	5	6	7	8	9	10	seriously

**5. Insurance Broker :** Potential insurance brokers must complete three years of on-the-job training (at age 18+) with an insurance company. They must also study (by day release and in their own time) for the exams set by the Chartered Insurance Institute. Insurance is a system whereby individual's pay relatively small amounts into a common fund out of which the losses they incur can be made good. Insurance brokers act as intermediaries, bringing together insurers and those who wish to be insured. They give advice to individuals and organisations about where to find the insurance policy that best suits their needs.

How confident are you that you could do the job of an insurance broker ? Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence  
at all

0    1    2    3    4    5    6    7    8    9    10

Complete confidence

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being an insurance broker ?  
Please indicate this by circling one of the numbers between 0 and 10.

Not at all

0    1    2    3    4    5    6    7    8    9    10

Very much

In the past few years have you ever thought about becoming an insurance broker ?  
Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all

0    1    2    3    4    5    6    7    8    9    10

Very seriously

**6. Air Traffic Controller :** To become an air traffic controller, it is necessary to take a three year training course (at age 18+) which covers all aspects of air traffic control and includes flying up to private pilot licence standard. Air traffic controllers spend most of their time sitting - wearing earphones - in front of a radar tube or display board which gives details of aircrafts' positions and flight paths. They regulate the flow of traffic on routes through a particular portion of airspace, ensuring the aircraft flying along the same routes at different speeds and in different directions preserve safety at all times.

How confident are you that you could do the job of an air traffic controller ?  
Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence  
at all

0    1    2    3    4    5    6    7    8    9    10

Complete confidence

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being an air traffic controller ?  
Please indicate this by circling one of the numbers between 0 and 10.

Not at all Very much  
 0 1 2 3 4 5 6 7 8 9 10

In the past few years have you ever thought about becoming an air traffic controller ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all Very seriously  
 0 1 2 3 4 5 6 7 8 9 10

**7. Dietician :** The training necessary to become a dietician is a four year degree course in dietetics or nutrition, which includes at least six months practical work and covers physiology, biochemistry, nutrition and food science, diet therapy, health education and the economics of nutrition. The work of a dietician involves advising individuals, mainly hospital in- and out-patients, on specific diets. Dieticians must use their expertise, skill and imagination to make diets that patients can "stick to", even when, for example, patients may have little understanding of the need to avoid certain ingredients in their diets and include others. They also act as consultants to catering managers in hospitals.

How confident are you that you could do the job of a dietician ?

Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence Complete confidence  
 at all  
 0 1 2 3 4 5 6 7 8 9 10

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a dietician ?

Please indicate this by circling one of the numbers between 0 and 10.

Not at all Very much  
 0 1 2 3 4 5 6 7 8 9 10

In the past few years have you ever thought about becoming a dietician ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.



Not at all											Very
	0	1	2	3	4	5	6	7	8	9	seriously
										10	

8. **Electrical Engineer** : To become an electrical engineer, it is necessary to complete a four year sandwich degree in engineering. Engineers apply scientific principles, theories and methods to practical needs. They spend most of their time at a desk or drawing board and at meetings with clients and colleagues. They work in teams with other engineers and specialists. Electrical engineering is concerned with the use and generation of electricity to produce heat, light and mechanical power. Electrical engineers may work in generating stations, distribution systems and in the manufacture of all kinds of electrical machinery, investigating, improving and adapting established products or creating new ones.

How confident are you that you could do the job of an electrical engineer ?  
Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence											Complete
at all	0	1	2	3	4	5	6	7	8	9	confidence
										10	

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being an electrical engineer ?  
Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
	0	1	2	3	4	5	6	7	8	9	10

In the past few years have you ever thought about becoming an electrical engineer ?  
Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very
	0	1	2	3	4	5	6	7	8	9	seriously
										10	

9. **Stockbroker** : At age 18+, one may train to become a stockbroker by working for a stockbroking firm and learning on the job. It is also necessary to study (usually by correspondence course) for the Stock Exchange Examination. Stockbrokers are agents who advise their clients on which securities to buy and

sell at any given time. They deal with jobbers (the wholesalers of shares) on behalf of their clients. Most stockbroking firms delegate the actual dealing on the Stock Exchange to authorised clerks. Brokers spend most of their time talking to clients and studying information provided by investment analysts.

How confident are you that you could do the job of a stockbroker ?  
Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence											Complete
at all											confidence
0	1	2	3	4	5	6	7	8	9	10	

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a stockbroker ?  
Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
0	1	2	3	4	5	6	7	8	9	10	

In the past few years have you ever thought about becoming a stockbroker ?  
Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very
0	1	2	3	4	5	6	7	8	9	10	seriously

10. **Home Economist** : It is necessary to have a degree in home economics, nutrition, or food and management science to become a home economist. Home economists working in manufacturing industry are involved in the development, quality control and marketing of food products and consumer goods. Before a new product is developed home economists discuss details of design and performance with engineers, scientists and designers. They act as a link between users and products and put forward the customers point of view. They identify demand for new products or changes in existing ones. They may also write clear and concise user-instructions for explanatory labels and leaflets and deal with enquiries and complaints correspondence.

How confident are you that you could do the job of a home economist ?  
Please indicate your degree of confidence by circling one of the numbers between 0 and 10.



Not at all Very much  
 0 1 2 3 4 5 6 7 8 9 10

In the past few years have you ever thought about becoming a physiotherapist ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all Very seriously  
 0 1 2 3 4 5 6 7 8 9 10

**12. Software Programmer :** Software programmers need a degree in computer science, mathematics, electronics or physics. Software programming may also be referred to as systems programming or software design. Software programmers design and develop the software or "controlling programme" which is incorporated into the hardware (the actual machine) during production, and which forms an essential part of the computer system. Their work is a combination of applying computer principles, creativity, high technology expertise and analytical reasoning. Software programmers work jointly with engineers, mathematicians, operational researchers and physicists, and their work is basically research and design.

How confident are you that you could do the job of a software programmer ? Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence Complete confidence  
 at all  
 0 1 2 3 4 5 6 7 8 9 10

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a software programmer ? Please indicate this by circling one of the numbers between 0 and 10.

Not at all Very much  
 0 1 2 3 4 5 6 7 8 9 10

In the past few years have you ever thought about becoming a software programmer ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all  
 0 1 2 3 4 5 6 7 8 9 10  
 Very seriously

13. **Radiographer** : A radiographer must complete a three year full-time training course (at age 18+) which covers physics, hospital practice, anatomy, physiology, radiographic photography and supervised practical work. A radiographer takes X-ray photographs to assist doctors in diagnosing diseases and injuries. They are expected to know exactly how to use the X-ray apparatus, to understand the theory behind X-ray photography, and how best to photograph the relevant part of the patient's body. They normally work in X-ray departments, but may also work on the wards using mobile equipment or may occasionally take X-rays during an operation.

How confident are you that you could do the job of a radiographer ?  
 Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence  
 at all  
 0 1 2 3 4 5 6 7 8 9 10  
 Complete confidence

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a radiographer ?  
 Please indicate this by circling one of the numbers between 0 and 10.

Not at all  
 0 1 2 3 4 5 6 7 8 9 10  
 Very much

In the past few years have you ever thought about becoming a radiographer ?  
 Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all  
 0 1 2 3 4 5 6 7 8 9 10  
 Very seriously

14. **Advertising Account Executive** : Advertising account executives are usually graduates. They are required to take the Communication Advertising and Marketing Certificate, which requires two years of part-time study (at evening classes). Account executives are in charge of several accounts, each dealing

with a different product. They must acquaint themselves thoroughly with each client's product, and, with the help of other advertising specialists, they decide on a "campaign theme", which they must then discuss with the client. The account executive coordinates the creation of the advert, watches the budget and presents progress reports to the client.

How confident are you that you could do the job of an advertising account executive ?

Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence												Complete
at all	0	1	2	3	4	5	6	7	8	9	10	confidence

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being an advertising account executive ? Please indicate this by circling one of the numbers between 0 and 10.

Not at all												Very much
	0	1	2	3	4	5	6	7	8	9	10	

In the past few years have you ever thought about becoming an advertising account executive ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all												Very
	0	1	2	3	4	5	6	7	8	9	10	seriously

15. **Speech therapist** : Potential speech therapists who have a degree (in any subject) must take a 2-3 year full-time course which covers speech pathology and therapeutics, phonetics, linguistics, anatomy, psychology and neurology. The training also includes practical work in hospital and school clinics where students observe and assist with treatments. Speech therapists treat disorders of voice, speech and language. Most patients are children, who stammer, have articulation problems or are excessively slow at learning to talk. Adult patients may have suffered brain damage or disease, or they may have had their larynx removed and need to be taught an alternative method of speech production.



Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a town and country planner ?  
Please indicate this by circling one of the numbers between 0 and 10.

Not at all Very much  
0 1 2 3 4 5 6 7 8 9 10

In the past few years have you ever thought about becoming a town and country planner ?  
Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all Very seriously  
0 1 2 3 4 5 6 7 8 9 10

**17. Bilingual Secretary :** To train as a bilingual secretary it is necessary to take a two year full-time training course (at 18+) which covers secretarial skills, language proficiency and knowledge of the economic and social situation in the relevant country. Bilingual secretaries translate incoming mail. They also compose their own letters in a foreign language from notes dictated in English. They sometimes read foreign journals, and search for and translate or summarise relevant articles. Occasionally they may act as interpreters. The extent to which they use their languages varies enormously.

How confident are you that you could do the job of a bilingual secretary ?  
Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence Complete confidence  
at all confidence  
0 1 2 3 4 5 6 7 8 9 10

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a bilingual secretary ?  
Please indicate this by circling one of the numbers between 0 and 10.

Not at all Very much  
0 1 2 3 4 5 6 7 8 9 10



In the past few years have you ever thought about becoming a bilingual secretary ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very seriously
0	1	2	3	4	5	6	7	8	9	10	

18. **Manager** : Managers have often taken a degree in business studies which provides a systematic introduction to management and the various business functions e.g. marketing, industrial relations, manpower planning, finance, export management etc., and includes practical experience in industry or commerce. Managers aim to make the best use of available resources - human, money, and equipment - in order to achieve a given objective. Management consists largely of enthusing subordinates into doing things efficiently. Communication is a major part of management - managers are said to spend between 70 and 90 per cent of their time talking to people, in conference, on the phone, and in one-to-one discussion.

How confident are you that you could do the job of a manager ?

Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence at all											Complete confidence
0	1	2	3	4	5	6	7	8	9	10	

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a manager ?

Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
0	1	2	3	4	5	6	7	8	9	10	

In the past few years have you ever thought about becoming a manager ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very seriously
	0	1	2	3	4	5	6	7	8	9	10

19. **Occupational Therapist** : To become an occupational therapist it is necessary to do 3-4 years of training (at age 18+) at an occupational therapy school. About one year is spent gaining practical experience, working in a variety of occupational therapy settings. Occupational therapists treat patients suffering from physical or mental disorders by whatever form of training or activity is likely to contribute to their recovery. Their work may involve rehabilitating the physically disabled, teaching them to use special gadgets, and to feed and dress themselves; arranging activities for bedridden or long-stay patients; organising work activities for psychiatric patients, encouraging them to socialise and become more independent.

How confident are you that you could do the job of an occupational therapist ?

Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence at all											Complete confidence
	0	1	2	3	4	5	6	7	8	9	10

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being an occupational therapist ?

Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
	0	1	2	3	4	5	6	7	8	9	10

In the past few years have you ever thought about becoming an occupational therapist ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very seriously
	0	1	2	3	4	5	6	7	8	9	10

20. **Surveyor** : Most surveyors take a full-time degree course in surveying. The job of a surveyor involves assessing the value of any type of property at any particular time. To do this it is necessary to assess the quality of the property; to know the value of property in the neighbourhood and of other similar property; to take into account possible future developments in the area (e.g. motorways), the local amenities, the proximity of schools and shops, and the type of neighbourhood. Surveyors also undertake structural surveys of property and prepare reports on its condition. They diagnose defects in buildings and make specifications for improvements and alterations.

How confident are you that you could do the job of a surveyor ?

Please indicate your degree of confidence by circling one of the numbers between 0 and 10.

No confidence at all											Complete confidence
	0	1	2	3	4	5	6	7	8	9	10

Disregarding whether or not you feel you have the necessary abilities, how much do you think you would like or enjoy being a surveyor ?

Please indicate this by circling one of the numbers between 0 and 10.

Not at all											Very much
	0	1	2	3	4	5	6	7	8	9	10

In the past few years have you ever thought about becoming a surveyor ?

Please indicate how seriously you have considered entering this occupation by circling one of the numbers between 0 and 10.

Not at all											Very seriously
	0	1	2	3	4	5	6	7	8	9	10

# Appendix C

## Statistical Appendix to Preliminary Study

	<i>Males</i>		<i>Females</i>	
	<i>mean</i>	<i>s.d.</i>	<i>mean</i>	<i>s.d.</i>
<b>AH2 scores</b>				
Verbal	27.49	3.57	27.19	5.06
Numerical	26.79	4.50	25.05	5.60
Perceptual	27.28	3.90	27.49	4.68
Overall	81.33	9.68	79.73	13.31
<b>Self-efficacy</b>				
Chartered accountant	6.02	2.90	4.56	2.84
Insurance broker	6.65	2.33	5.53	2.60
Air traffic controller	5.40	2.94	3.90	2.58
Electrical engineer	3.49	2.77	2.44	2.38
Stockbroker	5.63	2.88	3.76	2.61
Software programmer	3.65	3.14	2.63	2.39
Advertising account executive	7.00	2.54	5.83	2.54
Town and country planner	6.67	2.65	4.92	2.76
Manager	6.93	2.62	6.33	2.67
Surveyor	5.54	2.66	4.17	2.60
Primary school teacher	6.42	2.57	6.80	2.39
Personnel manager	6.65	2.51	6.46	2.54
State registered nurse	4.88	3.10	6.39	2.52
Dietician	5.16	2.71	5.54	2.64
Home economist	5.26	2.83	5.31	2.66
Physiotherapist	5.19	2.95	6.03	2.55
Radiographer	5.02	3.05	5.71	2.87
Speech therapist	4.49	2.51	5.80	2.46
Bilingual secretary	3.16	3.31	4.14	3.92
Occupational therapist	5.40	2.66	6.46	2.42
<b>Liking</b>				
Chartered accountant	2.21	2.07	2.45	2.91
Insurance broker	2.65	2.60	2.49	2.35
Air traffic controller	3.95	3.14	2.62	2.58
Electrical engineer	3.09	2.63	1.97	2.38
Stockbroker	3.05	2.65	2.63	2.84
Software programmer	2.74	2.64	2.08	2.43
Advertising account executive	6.05	2.57	5.80	3.11

	<i>Males</i>		<i>Females</i>	
	<i>mean</i>	<i>s.d.</i>	<i>mean</i>	<i>s.d.</i>
<b>Liking</b>				
Town and country planner	5.27	2.71	4.17	3.12
Manager	5.00	2.93	5.26	3.12
Surveyor	3.81	2.74	3.06	2.43
Primary school teacher	4.30	2.98	5.71	3.05
Personnel manager	4.00	3.08	5.50	2.98
State registered nurse	2.93	2.51	4.35	2.85
Dietician	3.40	2.84	4.76	2.79
Home economist	2.88	2.23	3.86	2.74
Physiotherapist	4.26	2.74	5.74	2.50
Radiographer	3.21	2.45	4.30	2.74
Speech therapist	3.67	2.56	5.56	2.96
Bilingual secretary	2.77	3.00	3.80	3.10
Occupational therapist	4.16	2.79	5.39	2.85
<b>Consideration</b>				
Chartered accountant	0.86	1.78	1.12	2.37
Insurance broker	0.91	1.94	0.55	1.49
Air traffic controller	1.05	1.90	0.30	0.94
Electrical engineer	0.61	1.56	0.56	1.47
Stockbroker	0.95	1.73	0.77	1.88
Software programmer	0.95	2.44	0.74	1.78
Advertising account executive	2.77	3.21	2.86	3.16
Town and country planner	1.63	2.39	0.87	1.86
Manager	3.30	3.15	3.32	3.34
Surveyor	1.44	1.98	0.32	1.31
Primary school teacher	1.44	2.66	4.19	3.67
Personnel manager	2.00	2.79	3.33	3.46
State registered nurse	1.12	2.50	3.13	3.33
Dietician	0.56	1.75	1.30	2.37
Home economist	0.23	0.84	0.68	1.63
Physiotherapist	0.81	1.87	2.56	2.77
Radiographer	0.61	1.79	1.17	2.12
Speech therapist	0.81	1.42	2.21	2.92
Bilingual secretary	0.49	1.52	1.67	2.73
Occupational therapist	1.44	2.78	2.71	3.09

# Appendix D

## Interview Schedule

1. Exactly what job do you do ? What is your job title ? Is that full-time or part-time ?
2. Can I ask you how old you are ?
3. Are you single, married or divorced ?
4. (If single) Are you cohabiting ?
5. (If married) How long have you been married ?
6. Have you got any children ?
7. (If so) How old are they ?
8. Have you got any brothers and sisters ?
9. (If so) How old are they ?
10. (If so) Do they work ? What jobs do they do ?
11. Were you brought up by both your parents ?  
(If no, establish who, if anyone, was the main male or female parent or parent figure, and ask parent questions with regard to this person)
12. Does your father work ? What job does he do ?
13. Does your mother work outside the home ?
14. (If so) What job does she do ? Is it full-time or part-time ?
15. (If mother is employed) How long has she been in her present job ? What did she do before that ? Was that full-time or part-time ? And before that ? When did she first start working after you were born ? (Establish mother's work history)

16. (If mother is not employed) Has she ever worked since you were born ? What job did she do ? Do you know what job she did before you were born ? (Establish mother's work history)
17. (If mother is not employed) How does your mother feel about not having a job and being a housewife ?
18. (If mother is employed part-time) How does your mother feel about working part-time as opposed to working full-time or being at home full-time ?
19. (If mother is employed full-time) How does your mother feel about working full-time as opposed to working part-time or being a housewife ?
20. (If mother is employed) How does your mother feel about her particular job ? About being a ..... ?
21. Would you say you are more similar in personality to your mother or your father ?
22. What about in your attitudes, values and opinions ? Are you more similar to you mother or father ?
23. Which parent are you closest to ? Your father or your mother ?
24. Did you grow up in a village, a town or a City ?
25. What sort of activities or hobbies did you have when you were a child ? What did you do in your spare time ? What about when you were a teenager ? What did you do in your spare time then ?
26. Were you ever a tomboy ? Did you see yourself as a tomboy or did anyone describe you as one ?
27. What sort of school did you go to after age eleven ? A comprehensive, a grammar school, an independent school ?
28. Was it mixed or girls only ?
29. Can you remember what subjects you studied in the fourth and fifth year / or for your O levels ?

30. (If not studied) What about subjects like woodwork / metalwork / technical drawing / maths / physics / chemistry / computing ? Were these subjects taught at your school / open to girls at your school ?
31. (If subjects were offered) Can you remember why you didn't take them ?
32. Did you go on to the sixth form or a sixth form college to do A levels ?
33. (If so) What subjects did you do in the sixth form ? (Establish if A levels)
34. (If did A levels) Why did you choose those A level subjects ? What appealed to you about those subjects ? Can you think of anyone or anything that might have influenced the A levels you did ? Did you parents, friends or teachers encourage or discourage you to do particular subjects ? Were there any subjects you would have liked to have done but couldn't because they weren't offered at your school/college or because they wouldn't fit in with the timetable ?
35. (If did any traditionally male subjects at O level and did A levels but no traditionally male ones) Can you remember why you didn't do maths / physics / chemistry / computing / technical drawing / woodwork / metalwork at A level ?
36. When you were at school did you ever have a job in the school holidays or in the evenings or weekends ? What jobs did you do ? What about a paper round ? Or babysitting ?
37. When you were at school did you have any careers lessons ? (If so) What can you remember about them ? Were they helpful ?
38. Did you have an interview or talk with a careers teacher or careers advisor when you were at school ? (If so) What did you talk about ? Was it helpful ?
39. Did anyone come to your school to talk about their jobs ? (If so) Who ? Was this helpful ?
40. Were you shown any films about jobs ? (If so) Which jobs ? Was this helpful ?



41. Did you go on any visits to workplaces or do any work experience ? (If so) Where did you go ? What did you do ? Was it helpful ?
42. Did your school have a careers library or somewhere where you could read up about different jobs ? (If so) Did you use it ? Was it helpful ?
43. Did you talk to your teachers about careers or college courses ? (If so) What did you talk about ? Was it helpful ?
44. Have any of these things we've been talking about, like careers lessons, had an effect on the college courses or jobs you've done ? Or the jobs and courses you've wanted to do ?
45. Would you have liked to have had more careers education or advice when you were at school ? (If so) What sort of thing would you have liked ?
46. Have you been to college, polytechnic or university ?
47. (If so) Did you use the careers service there ? (If so) Was it helpful ? Did it influence your choice of job or career ?
48. (If so) Did you talk to your lecturers about jobs or careers ? (If so) Was this helpful ? Did it influence your choice of job or career ?
49. Have you used the careers service or done any other careers advice activities since you left education ? (If so) What have you done ? Was it helpful ? Did it have an influence ?
50. Did you talk to your parents about college courses or jobs ? (If so) What did you talk about ? Was it helpful ? Did it have an influence ?
51. Is there anyone else you've talked to about college courses or jobs ? (If so) Who ? Was it helpful ? Did it have an influence ?
52. If you could do any job or be absolutely anything, what would you do ?
53. What types of work would you definitely not like to do ? Why ?

54. (Establish occupational preferences since childhood) When did you first want to become a .....(present job) ? When you were very young, say age five or six, can you remember what you wanted to be when you grew up ? What about after that ? ... (Establish rough ages and seriousness of each preference)
55. (For each occupational preference ask) What appealed to you about that job ? What might have influenced you wanting to do that job ? Why did you stop wanting to go into that job ?
56. When you were thinking about what job you'd like to do, did you consider how well the job would fit in with having children ?
57. Is there anyone who's a role model for you ? Someone you'd like to be similar to and who you model yourself on ?
58. In what ways have your mother's work experiences, the jobs she's done, how she feels about being employed or being a housewife, influenced your plans and ideas about work ?
59. What about your father ? How have his work experiences, the jobs he's done and how he feels about work influenced your plans and ideas about work ?
60. (Establish educational and work history since leaving school, with rough dates / ages. Include college course applied for and undertaken, jobs applied for and undertaken, full- or part-time, periods of unemployment, and breaks for childcare) Next I'd like to go through the things you've done since you left school ...
61. (For each course / job, establish) When did you first think of doing that course / job ? What appealed about it ? Did anything or anyone influence you ? Where did you find out about it ?
62. (If has children) How has having children affected your education and career ?
63. (If employed when children were preschool) What childcare arrangements did you use ?
64. Have any of your career or educational decisions been affected by you wanting to live in a particular area, to be near family, friends, boyfriends ? (If married) What about since you got married ?
65. If you were offered a job that you really wanted, but it was in a

different part of the country, would you be willing or able to take it ? (If no) Why not ?

66. Do you think luck or chance has played a part in your career or in the jobs you've done ? (If so) In what way ?
67. Have you ever wished you'd done different jobs or gone into a different occupation ? (If so) What would you prefer to have done ? Why ?
68. How long have you been in your present job ?
69. Could you tell me how much you earn ? (Show card with salary brackets)
70. How do you feel about your job in general ? (Show card with job satisfaction ladder) If you imagine the top rung of this ladder represents extremely happy with your job and the bottom rung represents extremely unhappy with your job, which rung would you say you are on ?
71. What things do you like about your job ?
72. What things do you dislike about it ?
73. How many people do you usually work with, in your immediate work group ? How many of these are men and how many are women ?
74. What are the men you work with like ?
75. Is your boss or supervisor a man or a woman ? What is he/she like ? Does he/she treat you differently from the way he/she treats the men in your job ?
76. How do clients/customers react to you ? Do they like dealing with a woman ?
77. Have you experienced any problems in your job due to being a woman ?
78. Have you ever experienced any sexual harassment at work ? In your present job ? In previous jobs ? (If so) Could you describe what happened ? How often did it happen ? Who was the harasser - a superior, a coworker ? How did you deal with it ?

79. In your job, does being a woman have any advantages ?
80. Have any of the people you've worked with or any of your supervisors or bosses been particularly helpful or supportive to you in your job or career ? (If so) Who was helpful ? In what way ?
81. Have you ever made out you were less able or intelligent than you are to other people ? (If so) To whom ? When ? Why ?
82. Do you ever worry about how others would react if you became extremely successful in your job or career ? Or how you yourself might feel about it ? Could you say a bit more about this ?
83. Now I'd like to ask you about your plans for the future. Obviously you can't know exactly what is going to happen to you in the future, but I'd like you to say what you realistically expect to do if things go as you hope. How long do you think you will stay in your present job ? Do you hope to get promoted ? What do you expect to do after that ? (Establish future occupational plans)
84. (Establish future domestic plans) Do you see yourself having children / more children ? When ? How many ? When would you return to work after having children ? Would you return part-time or full-time ? (If part-time) When would you envisage returning full-time ? (If envisages being employed when children are preschool) What childcare arrangements do you envisage making ?
85. Have you ever been discriminated against when you were applying for courses, jobs or promotion ? (If so) In what way ?
86. Would you advise other women to go into this job ? If you had a friend who was thinking of becoming a ....., what would you say to her ?
87. Why do you think it is mostly men / women who do your job ? Do you see this changing in the future ?
88. Would you describe yourself as a feminist ? What are your views on feminism ?

# Appendix E

## Questionnaires used in Main Study

### Work Values Questionnaire

What kind of things do you look for in a job ?

What aspects of a job are important to you ?

Please circle one of the numbers between 1 and 5 to show how important the following job characteristics are to you.

	<i>Not at all important</i>			<i>Very Important</i>	
	1	2	3	4	5
1. A job which is secure and permanent.	1	2	3	4	5
2. A job where the people you work with are friendly and likable.	1	2	3	4	5
3. A job that pays well.	1	2	3	4	5
4. A job which isn't stressful or high pressure.	1	2	3	4	5
5. A job which allows you to plan the way you do your work.	1	2	3	4	5
6. A job that benefits society.	1	2	3	4	5
7. A job which has hours that suit you.	1	2	3	4	5
8. A job with pleasant working conditions and comfortable surroundings.	1	2	3	4	5
9. A job in which you supervise other people.	1	2	3	4	5

	<i>Not at all important</i>				<i>Very Important</i>
10. A job where you don't have to do extra work in the evenings or weekends.	1	2	3	4	5
11. A job which involves helping people.	1	2	3	4	5
12. A job with good opportunities for promotion.	1	2	3	4	5
13. A job you could do part-time.	1	2	3	4	5
14. A job that people look up to and is respected.	1	2	3	4	5
15. A job close to where you live.	1	2	3	4	5
16. A job which has a lot of variety in it.	1	2	3	4	5
17. A job which is challenging and gives you a sense of achievement.	1	2	3	4	5
18. A job which would fit in well with childcare.	1	2	3	4	5
19. A job in which you can make use of your special abilities.	1	2	3	4	5
20. A job where you work closely with other people.	1	2	3	4	5
21. A job where the work itself is interesting.	1	2	3	4	5
22. A job where the boss or supervisor is likable and fair.	1	2	3	4	5

## Perceived Job Attributes Questionnaire

What is your present job like ?

Please circle one of the numbers between 1 and 5 to show how well the following statements describe your job.

	<i>Not at all true of my job</i>					<i>Very true of my job</i>
	1	2	3	4	5	
1. A job which is secure and permanent.	1	2	3	4	5	
2. A job where the people you work with are friendly and likable.	1	2	3	4	5	
3. A job that pays well.	1	2	3	4	5	
4. A job which isn't stressful or high pressure.	1	2	3	4	5	
5. A job which allows you to plan the way you do your work.	1	2	3	4	5	
6. A job that benefits society.	1	2	3	4	5	
7. A job which has hours that suit you.	1	2	3	4	5	
8. A job with pleasant working conditions and comfortable surroundings.	1	2	3	4	5	
9. A job in which you supervise other people.	1	2	3	4	5	
10. A job where you don't have to do extra work in the evenings or weekends.	1	2	3	4	5	
11. A job which involves helping people.	1	2	3	4	5	
12. A job with good opportunities for promotion.	1	2	3	4	5	

	<i>Not at all true of my job</i>				<i>Very true of my job</i>
13. A job you could do part-time.	1	2	3	4	5
14. A job that people look up to and is respected.	1	2	3	4	5
15. A job close to where you live.	1	2	3	4	5
16. A job which has a lot of variety in it.	1	2	3	4	5
17. A job which is challenging and gives you a sense of achievement.	1	2	3	4	5
18. A job which would fit in well with childcare.	1	2	3	4	5
19. A job in which you can make use of your special abilities.	1	2	3	4	5
20. A job where you work closely with other people.	1	2	3	4	5
21. A job where the work itself is interesting.	1	2	3	4	5
22. A job where the boss or supervisor is likable and fair.	1	2	3	4	5



## Manifest Needs Questionnaire

Please circle one of the numbers between 1 and 7 to show how well the sentences below describe you.

	<i>Never</i>	<i>Almost</i>	<i>Sel-</i>	<i>Some-</i>	<i>Usu-</i>	<i>Almost</i>	<i>Always</i>
		<i>never</i>	<i>dom</i>	<i>times</i>	<i>ally</i>	<i>always</i>	
1. I do my best work when my job assignments are fairly difficult.	1	2	3	4	5	6	7
2. When I have a choice, I try to work in a group instead of by myself.	1	2	3	4	5	6	7
3. In my work assignments I try to be my own boss.	1	2	3	4	5	6	7
4. I seek an active role in the leadership of a group.	1	2	3	4	5	6	7
5. I try very hard to improve on my past performance at work.	1	2	3	4	5	6	7
6. I pay a good deal of attention to the feelings of others at work.	1	2	3	4	5	6	7
7. I go my own way at work, regardless of the opinions of others.	1	2	3	4	5	6	7
8. I avoid trying to influence those around me to see things my way.	1	2	3	4	5	6	7

	<i>Never</i>	<i>Almost never</i>	<i>Sel- dom</i>	<i>Some- times</i>	<i>Usu- ally</i>	<i>Almost always</i>	<i>Always</i>
9. I take moderate risks and stick my neck out to get ahead at work.	1	2	3	4	5	6	7
10. I prefer to do my own work and let others do theirs.	1	2	3	4	5	6	7
11. I disregard rules and regulations that hamper my personal freedom.	1	2	3	4	5	6	7
12. I find myself organising and directing the activities of others.	1	2	3	4	5	6	7
13. I try to avoid any added responsibilities in my job.	1	2	3	4	5	6	7
14. I express my disagreements with others openly.	1	2	3	4	5	6	7
15. I consider myself a "team player" at work.	1	2	3	4	5	6	7
16. I strive to gain more control over the events around me at work.	1	2	3	4	5	6	7
17. I try to perform better than my coworkers.	1	2	3	4	5	6	7
18. I find myself talking to those around me about non-work related matters.	1	2	3	4	5	6	7
19. I try my best to work alone on a job.	1	2	3	4	5	6	7

	<i>Never</i>	<i>Almost</i>	<i>Sel-</i>	<i>Some-</i>	<i>Usu-</i>	<i>Almost</i>	<i>Always</i>
		<i>never</i>	<i>dom</i>	<i>times</i>	<i>ally</i>	<i>always</i>	
20. I strive to be "in command" when I'm working in a group.	1	2	3	4	5	6	7

# Appendix F

## Requests for Subjects

*Letter appearing in Working Woman (Winter Issue, December, 1985), in letters page.*

Can any WORKING WOMAN reader help me ? I am carrying out a doctoral research project on working women, looking at the factors that influence the types of occupation women enter. I am interviewing women in traditionally male occupations (e.g. engineering, stockbroking, surveying); women in traditionally female jobs (e.g. personnel, nursing, home economics); and women in occupations that used to be "male", but which women are now entering in much larger numbers (e.g. law, medicine, management). If any WW readers would like to help and are willing to be interviewed, please write to me, Sarah Clement, at the Department of Psychology, Goldsmiths College, New Cross, London SE14 6NW.

*Letter in Women and Manual Trades Newsletter (London), December 1985.*

Please can you help ? I am carrying out a research project on women in traditionally male occupations. If you would like to take part in this research and are willing to be interviewed, please contact me, Sarah Clement, at the Department of Psychology, Goldsmiths College, New Cross, London SE14 6NW.

*Classified advertisement in City Limits, Contacts section, 12th March 1987.*

**WOMEN IN TRADITIONALLY MALE MANUAL JOBS** Please can you help ? I'd like to interview you for my doctoral research project. Contact Sarah Clement, Psychology Department, Goldsmiths College, New Cross, SE14 6NW.

*Letter sent to women on the Women and Manual Trades Work Register and the Everywoman Directory of Women's Cooperatives and Other Enterprises*

Please can you help ? I am a postgraduate student and I'm carrying out a research project on women in nontraditional jobs. I'm looking at the factors that influence the types of occupation women enter e.g. family background, careers education, previous work history, experiences in present job etc. Are you interested in being interviewed as part of this research ?

I hope you don't mind me writing to you (I got your name from the Women and Manual Trades work register / the Everywoman Directory of Women's Cooperatives and other Enterprises).

The interview would, of course, be anonymous. It tends to take between one and two hours, but it varies a lot from woman to woman. We could do the interview in the daytime, evening or weekend, and at your home, my flat in Brockley SE4 or at Goldsmiths College - whatever suits you best.

If you would like to help and are willing to be interviewed please let me know. I enclose an s.a.e. Alternatively you could phone me at college on the number above or at home on \_\_\_\_\_. Then we can arrange a time and place to do the interview.

I look forward to hearing from you.

Best wishes.

# Appendix G

## Sample and Proportion of Women in Occupations in the Main Study

### Source of statistics

- (1) **1980 Census**  
Census 1981 Economic Activity in Great Britain. Office of Population Censuses and Surveys. London : HMSO. Table 3. Occupation orders, Groups and Units by Employment Status by Sex.
- (2) **Personal communication** with the relevant body.
- (3) **Miller, R. & Alston, A. (1984).** Equal Opportunities : A Careers Guide. Harmondsworth : Penguin.
- (4) **University Grants Committee**  
UGC (1984). University Statistics 1983-4, Volume 2. First Destination of University Graduates by Sex.
- (5) **University Grants Committee**  
UGC (1984). University Statistics 1983-4, Volume 1. Students and Staff. Full-time undergraduates, course studied by sex.
- (6) **Department of Education and Science**  
DES (1984). Statistics of Education : Further Education. November 1983. Table 24. Course Enrolments in Polytechnics, subject of study by sex.
- (7) **Trades Union Congress**  
TUC (1983). Women in the Labour Market. London : TUC
- (8) **Equal Opportunities Commission**  
EOC (1985). Men and Women : A Statistical Digest. Manchester : EOC

- (9) Rosser, J. & Davies, C. (1986). "What would we do without her ?" : Invisible women in National Health Service Administration. In A. Spencer & D. Podmore (Eds.). In a man's world. London : Tavistock.
- (10) Association of Graduate Careers Advisory Services (1983). Personnel work. Manchester : Central Services Unit

#### Occupations in Group One (Manual Male-Dominated)

<i>Subject number</i>	<i>Occupation</i>	<i>Proportion of women (percentages)</i>	
1.	Painter and decorator	Overall	5.7 (1)
2.	Painter and decorator	Overall	5.7 (1)
3.	Painter and decorator	Overall	5.7 (1)
4.	Painter and decorator	Overall	5.7 (1)
5.	Painter and decorator	Overall	5.7 (1)
6.	Carpenter	Overall	0.7 (1)
		TOPS students	2.0 (7)
7.	Carpenter	Overall	0.7 (1)
		TOPS students	2.0 (7)
8.	Cabinetmaker	Overall	4.9 (1)
9.	Cabinetmaker	Overall	4.9 (1)
10.	Cabinetmaker	Overall	4.9 (1)
11.	Builder	Overall	0.6 (1)
12.	Builder	Overall	0.6 (1)
13.	Gardener	Overall	3.8 (1)
14.	Car mechanic	Overall	0.9 (1)
15.	Underground train driver	Overall	0.3 (1)

16.	Bus driver	Overall	3.3 (1)
17.	Housing estate cleaner	No figures available, S is only woman in team of 13	
18.	Butcher	Overall	8.2 (1)

**Occupations in Group Two (Non-Manual Male-Dominated)**

<i>Subject number</i>	<i>Occupation</i>	<i>Proportion of women (percentages)</i>	
19.	Mechanical engineer	Overall	0.9 (1)
		Students	5.0 (5)
			2.2 (6)
20.	Mechanical engineer	Overall	0.9 (1)
		Students	5.0 (5)
			2.2 (6)
21.	Electronics engineer	Overall	2.8 (1)
		Students	5.3 (5)
			3.2 (6)
22.	Physicist	Overall (with mathematicians & geologists)	22.9 (1)
		Students	14.6 (5)
			8.5 (6)
23.	Physicist	Overall (with mathematicians & geologists)	22.9 (1)
		Students	14.6 (5)
			8.5 (6)
24.	Geophysicist	Overall (with mathematicians & physicists)	22.9 (1)
		Students (geology)	20.7 (5)
			18.1 (6)



25.	Geologist	Overall (with mathematicians & physicists) Students	22.9 (1) 20.7 (5) 18.1 (6)
26.	Chemistry researcher	Overall Students	9.0 (1) 27.8 (5) 22.9 (6)
27.	Production manager	Overall Students (management)	7.5 (1) 27.1 (6)
28.	Factory manager	Overall (management) Students (management)	5-18 (3) 27.1 (6)
29.	Chartered surveyor	Overall Students	2.2 (3) 12.9 (5) 10.0 (6)
30.	Estimator / surveyor	Overall Students	2.2 (3) 12.9 (5) 10.0 (6)
31.	Buildings maintenance manager	No figures available. S trained as an architect. Figures for architecture - overall 7.0 (3), students 25.6 (5), 20.1 (6)	
32.	Carpentry tutor	Overall (carpenter) Students (carpentry)	0.7 (1) 2.0 (7)
33.	Computer programmer	Overall (programmers & analysts) Students (computing)	19.0 (1) 19.0 (3)
34.	Computer programmer/analyst	Overall (programmers & analysts) Students (computing)	19.0 (1) 19.0 (3)
35.	Information systems manager	Overall (programmers & analysts) Students (computing)	19.0 (1) 19.0 (3)

36.	Systems analyst	Overall (programmers & analysts) Students (computing)	19.0 (1) 19.0 (3)
37.	Economist	Overall Students	10.0 (3) 28.8 (5) 23.4 (6)
38.	Stockbroker	Overall (with under-writers & investment analysts) New entrants (financial work)	13.4 (1) 32.7 (4)
39.	Investment analyst	Overall (with under-writers & brokers) New entrants (financial work)	13.4 (1) 32.7 (4)
40.	Financial director	Overall (financial managers) New entrants (financial work)	9.6 (1) 32.7 (4)
41.	Investment controller	Overall (with accountants, valuers & financial specialists) New entrants (financial work)	10.1 (1) 32.7 (4)
42.	Chartered accountant	Overall Trainees	6.5 (8) 28.0 (3)
43.	Chartered accountant	Overall Trainees	6.5 (8) 28.0 (3)
44.	Chartered accountant	Overall Trainees	6.5 (8) 28.0 (3)
45.	Management accountant	Overall Trainees	2.0 (3) 15.0 (3)

46.	Sales executive	Overall (with marketing & sales managers)	12.3 (1)
		New entrants (Institute of Sales & Marketing Management)	25.0 (2)
47.	Sales representatives	Overall	10.4 (1)
48.	Sales representatives	Overall	10.4 (1)
49.	Driving examiner	Overall	<1.0 (3)
50.	Police inspector	Overall	2.0 (2)
		New entrants	21.0 (2)

### Occupations in Group Three (Non-Manual Transitional)

<i>Subject number</i>	<i>Occupation</i>	<i>Proportion of women (percentages)</i>	
51.	Doctor (community medicine)	Overall (medical practitioners)	24.1 (1)
		Students (medicine)	42.6 (5)
52.	Doctor (psychiatrist)	Overall (medical practitioners)	24.1 (1)
		Students (medicine)	42.6 (5)
53.	Doctor (General Practice)	Overall (medical practitioners)	24.1 (1)
		Students (medicine)	42.6 (5)
54.	Doctor (paediatrician)	Overall (medical practitioners)	24.1 (1)
		Students (medicine)	42.6 (5)
55.	Dentist (orthodontics)	Overall	19.4 (1)
		Students	39.8 (5)
56.	Dentist (general practice)	Overall	19.4 (1)
		Students	39.8 (5)

57.	Ophthalmic optician	Overall (with dispensing opticians)	22.9 (1)
		Students	52.0 (3)
58.	Solicitor (matrimonial)	Overall (with judges & barristers)	15.0 (1)
		New entrants	46.8 (4)
		Students	44.6 (5)
			44.7 (6)
59.	Solicitor (commercial)	Overall (with judges & barristers)	15.0 (1)
		New entrants	46.8 (4)
		Students	44.6 (5)
			44.7 (6)
60.	Solicitor (local government)	Overall (with judges & barristers)	15.0 (1)
		New entrants	46.8 (4)
		Students	44.6 (5)
			44.7 (6)
61.	Solicitor (matrimonial)	Overall (with judges & barristers)	15.0 (1)
		New entrants	46.8 (4)
		Students	44.6 (5)
			44.7 (6)
62.	Legal executive	Overall (with judges, barristers & solicitors)	15.0 (1)
		New entrants (legal work)	46.8 (4)
63.	Retail manager	Overall	30.3 (1)
		Students	50.0 (6)
64.	Housing manager	Overall (Institute of Housing)	32.0 (2)
		Trainees (Institute of Housing)	45.0 (2)

65.	Manager in adult education	Overall (with local government officers & administrative & executive functions) New entrants (administration & operational management)	32.0 (1) 38.4 (4)
66.	Computer sales & marketing	Overall (IBM) New entrants	11.0 (2) 34.0 (2)
67.	Manager (international banking)	No figures available. When S joined bank 13 years ago around 20% of graduate management trainees were women, now its nearly 50%.	

#### Occupations in Group Four (Non-Manual Female-dominated)

<i>Subject number</i>	<i>Occupation</i>	<i>Proportion of women (percentages)</i>	
68.	Headteacher (first school)	Overall (primary teachers)	77.4 (8)
69.	Headteacher (primary school)	Overall (primary teachers)	77.4 (8)
70.	Teacher (primary school)	Overall (primary teachers)	77.4 (8)
71.	Teacher (infant school)	Overall (primary teachers)	77.4 (8)
72.	Teacher (modern languages)	Figures not available. Language degree required, French students 80.2, German students 72.0 (5).	
73.	Midwife	Overall	>99.0 (3)
74.	Midwife tutor	Overall	>99.0 (3)
75.	Health centre coordinator	Overall	"nearly all" (9)

76.	Librarian	Overall	67.5 (1)
77.	Librarian	Overall	67.5 (1)
78.	Personnel manager	Overall New entrants	39.6 (1) 72.0 (10)
79.	Personnel officer	Overall (personnel manager) New entrants	39.6 (1) 72.0 (10)
80.	Personnel officer	Overall (personnel manager) New entrants	39.6 (1) 72.0 (10)
81.	Recruitment consultant	Overall (personnel manager) New entrants	39.6 (1) 72.0 (10)
82.	Television researcher	Overall (BBC)	74.0 (2)
83.	Public relations consultant	Overall (Institute of Public Relations) New Entrants (Institute of Public Relations)	35.0 (2) 70.0 (2)
84.	Secretary	Overall	98.3 (1)
85.	Clerical worker	Overall	69.8 (1)

#### Occupations in Group Five (miscellaneous)

The women in this group were in occupations that did not fall into the above categories (e.g. probation officer); were in occupations for which no figures are available (e.g. jewellery designer); or had jobs which fell into more than one category (e.g. a secretary who had a part-time voluntary job as a motorcycle instructor and examiner).

86.	Secretary / motorcycle instructor
87.	Clerk-typist / Open University engineering student
88.	Archivist
89.	Research officer

90. Jewellery designer
91. Conference organiser
92. Pattern cutter
93. Chandler
94. Audio-visual programme maker
95. Careers teacher
96. Headteacher (secondary school)
97. Set designer
98. Technical manager
99. Probation officer
100. Interior designer

# Appendix H

## Letter to Subjects giving Written Answers to Interview Questions

Dear \_\_\_\_\_,

Thank you very much for your letter in response to my request for interviewees in Working Woman magazine. I would like to be able to come to \_\_\_\_\_ to interview you, but unfortunately the research money available to me is not enough to allow me to travel that far.

However, would you be willing to answer my questions by post ? I would appreciate it if you could find the time. Please find the questions enclosed. I'm afraid there are quite a lot of questions - this is because I think it is important that research looks at the whole person, to get an overall picture, rather than focusing on just one or two aspects.

Please feel free to write as much (or as little) as you like in response to each question. Also, do expand, elaborate or digress as you wish. Everything you write will be treated as confidential and anonymous. There are also three short questionnaires. I enclose an s.a.e..

When I have finished the research I will write a summary of the main findings which I will send to the women who took part in the research if they wish.

Thank you (in anticipation) for all your time and help.

Best wishes.

Sarah Clement



# Appendix I

## Coding Sheet

-----  
1 SUBJECT NUMBER [SUBJNO1]  
-----

2 GROUP [GROUP1]

1 = manual male job, 2 = nonmanual male job,

3 = nonmanual, transitional job, 4 = nonmanual female job  
-----

3 RECRUITMENT METHOD [RECRUIT1]

1 = Working Woman, 2 = WAMT Newsletter, 3 = City Limits,

4 = WAMT Work Register, 5 = Everywoman Directory,

6 = Friend of Interviewee, 7 = Friend of a friend  
-----

4 WHERE FROM [LIVE1]

1 = Greater London, 2 = Not in Greater London  
-----

5 WHERE INTERVIEW TOOK PLACE [WHEREINT1]

1 = S's home, 2 = S's workplace, 3 = my home, 4 = college,

5 = public place  
-----

6 WHEN INTERVIEW TOOK PLACE [WHENINT1]

1 = evening, 2 = daytime in the week, 3 = weekend  
-----

7 FORM OF DATA [FORMDATA1]

1 = tape-recorded, fully transcribed,

2 = tape-recorded, part transcribed,

3 = tape-recorded, not transcribed,

4 = not tape-recorded, notes taken,

5 = written 'interview' by post  
-----

8 NATIONALITY [NATIONAL1]

1 = British, 2 = European, 3 = North American  
-----

9 PART OR FULL TIME [FULLTIME1]

1 = full-time,

2 = >1 part-time job equivalent to full-time (35+hrs),

3 = part-time (<35hrs)  
-----

10 EMPLOYED OR SELF-EMPLOYED [SELFEMPL1]

1 = employed, 2 = self-employed, 3 = freelance,

4 = director of company, 5 = both employed and self-employed  
-----

-----  
11 AGE [AGE]

-----  
12 CURRENT MARITAL STATUS [CMARSTAT]

1 = single, 2 = cohabiting (with a man),  
3 = cohabiting (with a woman), 4 = married

-----  
13 PREVIOUS MARITAL SITUATIONS [PMARSTAT]

0 = single, 1 = widowed, 2 = divorced/separated once,  
3 = divorced/separated twice,  
4 = widowed once and divorced/separated once

-----  
14 AGE WHEN FIRST MARRIED [AGEMARR]

-----  
15 SEXUALITY [SEXUALIT]

1 = heterosexual (if currently married or living with a man  
or mentions current or recent boyfriend),  
2 = lesbian (if stated)

-----  
16 CHILDREN [CHILDREN]

0 = no kids, 1 = one child, 2 = two children,  
3 = three children, 4 = four kids,  
5 = step kids / cohabitees kids living with S,  
6 = step kids / cohabitees kids sometimes staying with S,  
7 = own kids not living with S, 8 = pregnant

-----  
17 AGE WHEN FIRST CHILD WAS BORN [AGBECMUM]

-----  
18 AGE OF YOUNGEST CHILD [AGEYGKID]

1 = preschool (0-4), 2 = primary school (5-10),  
3 = secondary school (11-16), 4 = grown up (17 plus)

-----  
19 NO. OF CHILDREN IN FAMILY OF ORIGIN [FAMSIZE]

Include S when counting number of children.  
In all variables relating to siblings include siblings who  
died if they were there for most of S's childhood, half-  
siblings and step-siblings if they lived with S during the  
majority of her childhood

-----  
20 BIRTH ORDER [BTHORDER]

S's position in family

-----  
21 SIBLING STATUS [SIBSTAT]

1 = only child, 2 = eldest, 3 = middle child, 4 = youngest

-----  
22 NUMBER OF BROTHERS [NOBROS]

-----  
23 NUMBER OF ELDER BROTHERS [NOELBROS]

-----  
24 NUMBER OF SISTERS [NOSIS]

-----  
25 NUMBER OF ELDER SISTERS [NOELSIS]

26 SIBLINGS IN SEX ATYPICAL WORK [SIBPION]

0 = no siblings in sex atypical work, 1 = sister in male job,  
2 = brother in female job,  
3 = more than one sibling in sex atypical job

---

27 BROKEN HOMES [BROKHOME]

State of family unit during S's childhood (up to age 16)  
1 = intact family, 2 = parents divorced/separated,  
3 = father died, 4 = mother died

---

28 BROUGHT UP BY MALE, FEMALE OR BOTH [SEXPAREN]

Spent majority of childhood with a female parent figure  
(mother, step mother, grandmother etc.), with a male parent  
figure, or with both  
1 = both 'parents', 2 = 'mother' only, 3 = 'father' only

---

29 FATHER'S JOB - SEX [SXDADJOB]

Sex composition of father's or father figure's present or  
last job if dead, unemployed, retired etc.  
Use two thirds as the cut-off point above which jobs are  
gendered. Base judgements on actual figures where possible.  
1 = male job, 2 = neutral job, 3 = female job

---

30 FATHER'S JOB - MANUAL OR NONMANUAL [CLDADJOB]

Father's present or most recent job  
1 = manual, 2 = nonmanual

---

31 MOTHER'S JOB - SEX [SXMUMJOB]

Calculate as in sex of father's job  
Do not code 'housewife' as a job here. Code mother's last  
job. If mother has never worked code as -1 (i.e. missing)  
1 = female job, 2 = neutral job, 3 = male job

---

32 MOTHER EVER DONE MALE JOB ? [MUMPION]

Has mother ever done a male-dominated job ?  
0 = no, 1 = yes

---

33 MOTHER'S JOB - MANUAL OR NONMANUAL [CLMUMJOB]

Mother's present or most recent job  
1 = manual, 2 = nonmanual

---

34 MOTHER'S EMPLOYMENT HISTORY [MUMWKHIS]

Mother's first return to work after birth of S  
1 = stopped work on marriage/birth of first child & never  
returned  
2 = returned part-time when youngest child was 17 plus  
3 = returned full-time when youngest child was 17 plus  
4 = returned part-time when youngest child was 11-16  
5 = returned full-time when youngest child was 11-16  
6 = returned part-time when youngest child was 5-10  
7 = returned full-time when youngest child was 5-10  
8 = returned part-time when youngest child was 0-4  
9 = returned full-time when youngest child was 0-4

---

35 MOTHER'S FEELINGS RE EMPLOYMENT [MUMLKSIIT]

- 1 = happy with work pattern,
  - 2 = neither happy nor unhappy, mixed feelings, feelings changed
  - 3 = unhappy with work pattern
- 

36 MOTHER'S FEELINGS RE PRESENT/LAST JOB [MUMLKJOB]

- 1 = happy with job,
  - 2 = neither happy nor unhappy, mixed feelings, feelings changed
  - 3 = unhappy with job
- 

37 SIMILARITY TO PARENTS IN PERSONALITY [PERSPAR]

If feelings changed a lot over time take similarity during childhood

- 1 = a lot more similar to mother
  - 2 = a bit more similar to mother
  - 3 = equally similar to both
  - 4 = a bit more similar to father
  - 5 = a lot more similar to father
- 

38 SIMILARITY TO PARENTS IN ATTITUDES [ATTSPAR]

If attitudes changed take similarity during childhood

- 1 = a lot more similar to mother
  - 2 = a bit more similar to mother
  - 3 = equally similar to both
  - 4 = a bit more similar to father
  - 5 = a lot more similar to father
- 

39 CLOSENESS TO PARENTS [CLOSEPAR]

If feelings changed take similarity during childhood

- 1 = a lot closer to mother
  - 2 = a bit closer to mother
  - 3 = equally close to both
  - 4 = a bit closer to father
  - 5 = a lot closer to father
- 

40 DIFFICULTIES/PROBLEMS WITH PARENTS [PROBPAR]

- 1 = S mentioned serious conflicts, problems, lack of similarity or closeness between self and both parents
  - 2 = S mentioned serious conflict etc between self and mother
  - 3 = S mentioned serious conflict etc between self and father
  - 4 = S didn't mention any serious conflict etc with parents
- 

41 SIZE OF HOMETOWN [HOMETOWN]

Where S lived for the majority of her childhood (up to 16)

- 1 = village
  - 2 = town
  - 3 = city
- 

42 CHILDHOOD ACTIVITIES - READING [HOBREAD]

- 0 = reading not mentioned
- 1 = reading mentioned

-----  
43 CHILDHOOD ACTIVITIES - WRITING [HOBWRIT]

0 = writing not mentioned  
1 = writing mentioned  
-----

44 CHILDHOOD ACTIVITIES - ART/DRAWING [HOBART]

0 = art not mentioned  
1 = art mentioned  
-----

45 CHILDHOOD ACTIVITIES - OUTDOOR PLAY [PLAYOUT]

0 = outdoor play not mentioned  
1 = outdoor play mentioned  
-----

46 CHILDHOOD ACTIVITIES - MUSIC [HOBMUSIC]

E.g. playing instrument, singing, not listening to records  
0 = music not mentioned  
1 = music mentioned  
-----

47 CHILDHOOD ACTIVITIES - SPORT [HOBSPORT]

0 = sport not mentioned  
1 = sport mentioned  
-----

48 CHILDHOOD ACTIVITIES - YOUTH CLUBS/BROWNIES ETC

[HOBCLUB]

0 = clubs not mentioned  
1 = clubs mentioned  
-----

49 CHILDHOOD ACTIVITIES - TRADITIONALLY MALE  
ACTIVITIES

[MALEHOB]

E.g. making things, mending things  
0 = no traditionally male activities mentioned  
1 = one traditionally male activity mentioned  
2 = two traditionally male activities mentioned  
etc.  
-----

50 CHILDHOOD ACTIVITIES - TRADITIONALLY FEMALE  
ACTIVITIES

[FEMALHOB]

E.g. sewing, cooking, ballet, riding, knitting, not including those  
mentioned above e.g. reading, writing, netball (code as sport)  
0 = no traditionally female activities mentioned  
1 = one traditionally female activity mentioned  
2 = two traditionally female activities mentioned  
etc  
-----

51 SOLITARY CHILDHOOD [SOLITKID]

0 = didn't mention that spent a lot of time alone in  
solitary pursuits as a child  
1 = mentioned spent a lot of time alone in solitary  
pursuits as a child  
-----

52 TOMBOY [TOMBOY]

0 = was not a tomboy as a child  
1 = was a tomboy in some ways but not in others, a 'sort of' or  
-----

qualified response  
2 = was definitely a tomboy

---

**53 BOYS AS FRIENDS [MALEPALS]**

0 = didn't mention that most of friends as a child were male  
1 = mentioned that most of friends as a child were male

---

**54 TYPE OF SCHOOL [SCHOOL]**

Type of school attended from age 11-16. If S attended more than one type of school, then code according to main type of schooling.

1 = secondary modern  
2 = comprehensive school  
3 = grammar school  
4 = independent school

---

**55 GIRLS ONLY OR MIXED SCHOOL [COEDSCHL]**

Type (or main type) of school attended from age 11-16

1 = girls only school  
2 = mixed school

---

**56 TRADITIONALLY MALE SUBJECTS STUDIED AT O LEVEL [MALEOLI]**

Number of traditionally male subjects (maths, physics, chemistry, general science, computing, geology, economics, technical drawing, wood/metalwork) studied at age 14-16 (not necessarily O levels).

---

**57 TRADITIONALLY MALE SUBJECTS OFFERED [MALEOLOF]**

Number of traditionally male subjects (as above) that S could have done at her school.

---

**58 SIXTH FORM EDUCATION [SIXFORM]**

Include if S did A level equivalents e.g. Scottish Highers, Baccalaureat etc.

0 = left school at 15/16 and never did any A levels  
1 = went into sixth form or to college to do A levels  
2 = did A levels at night school / as a mature student

---

**59 NUMBER OF A LEVELS [NOALEV]**

Number of A levels studied (or major subjects if did A level equivalents)

---

**60 NUMBER OF TRADITIONALLY MALE A LEVELS [NOMALEAL]**

Number of traditionally male A levels studied

---

**61 A LEVEL CHOICE - ABILITY [CHABIL]**

0 = didn't mention ability as a factor in A level choice  
1 = mentioned ability as a factor in A level choice

---

**62 A LEVEL CHOICE - ENJOYMENT [CHENJOY]**

0 = didn't mention enjoyment or interest as a factor in A level choice  
1 = mentioned enjoyment as a factor in A level choice

---

**63** A LEVEL CHOICE - CAREER [CHCAREER]

0 = didn't mention career as a factor in A level choice  
1 = mentioned career as a factor in A level choice

---

**64** A LEVEL CHOICE - WENT WELL WITH OTHER SUBJECTS [CHFIT]

0 = didn't mention going well with other subjects as a factor  
in A level choice  
1 = mentioned going well with other subjects as a factor  
in A level choice

---

**65** A LEVEL CHOICE - PARENTAL INFLUENCE [CHPAR]

0 = didn't mention parental pressure as a factor in A level  
choice  
1 = mentioned parental pressure as a factor in A level choice

---

**66** JOB WHILE AT SCHOOL [HOLIDJOB]

Ever had a job, including paper round, babysitting, in  
evening, weekends or holidays while at school ?

0 = no  
1 = yes

---

**67** TRADITIONALLY MALE JOB WHILE AT SCHOOL [MLHOLJOB]

Ever had a traditionally male job (including paper round)  
in evening, weekends or holidays while at school ?

0 = no  
1 = yes

---

**68** CAREERS EDUCATION AND ADVICE RECEIVED AT SCHOOL

[SCEREC]

Careers education is defined as discussion/help etc. relating  
to choice of future occupation, not which university to go  
to or what course to study.

0 = none  
1 = a small amount  
2 = a reasonable or large amount

---

**69** HELPFULNESS OF SCHOOL CAREERS EDUCATION AND ADVICE

[SCEHELP]

0 = not helpful  
1 = quite helpful  
2 = very helpful

---

**70** POST-SCHOOL CAREERS EDUCATION AND ADVICE  
RECEIVED/USED

[PSCEREC]

Formal advice e.g. from university careers centre, job  
centre etc., not from parents or friends

0 = none  
1 = a small amount  
2 = a reasonable or large amount

---

**71** HELPFULNESS OF POST-SCHOOL CAREERS ADVICE [PSCEHELP]

0 = not helpful

1 = quite helpful  
2 = very helpful

---

**72** INFLUENCE OF CAREERS EDUCATION AND ADVICE (SCHOOL OR POST-SCHOOL) [CAREDIRNF]

0 = no influence  
1 = slight influence  
2 = big influence

---

**73** IDEAL OCCUPATION [IDEALOCC]

1 = present job  
2 = variation on present job  
3 = other traditionally male job  
4 = other neutral job  
5 = other traditionally female job  
6 = don't know / more than one of the above

---

**74** NUMBER OF CAREER PREFERENCES AGE 0 - 12 [EARLPREF]

Number of stated career preferences from age 0 to 12

---

**75** NUMBER OF CAREER PREFERENCES AGE 13 - 18 [TEENPREF]

Number of career preferences from age 13 - 18

---

**76** NO. OF TRADITIONALLY MALE CAREER PREFERENCES AGE 0-12

[EARLMPRF]

Number of traditionally male career preferences from age 0 to 12

---

**77** NO. OF TRADITIONALLY MALE CAREER PREFERENCES AGE 13-18

[TEENMPRF]

Number of traditionally male career preferences from age 13 to 18.

---

**78** AGE WHEN FIRST DECIDED ON PRESENT CAREER [AGEDECOC]

Age when first thought of entering present occupation

---

**79** CONSIDER FITTING IN WITH KIDS [CONSIKID]

0 = didn't ever think about how well jobs would fit in with having children  
1 = only thought about it after S had children  
2 = did think about it before having own children or without yet having children

---

**80** ROLE MODEL [ROLMODEL]

0 = haven't had or got a role model  
1 = had/got role model - female, fictional/historical/famous person  
2 = had/got role model - female, real life  
3 = had/got role model - male, fictional/historical/famous person  
4 = had/got role model - male, real life  
5 = had/got role model - mixture of the above

---

**81** NUMBER OF PREVIOUS OCCUPATIONS [PREVOCC]



Number of previous occupations (not previous positions at different levels or with different employers)  
Don't include jobs while at school or university

---

82 NUMBER OF PREVIOUS FEMALE OCCUPATIONS [PREVFOCC]

---

83 NUMBER OF PREVIOUS NEUTRAL OCCUPATIONS [PREVNOCC]

---

84 NUMBER OF PREVIOUS MALE OCCUPATIONS [PREVMOCC]

---

85 HIGHER EDUCATION [HIGHERED]

Classify according to highest level of education achieved

0 = no postschool education

1 = day/block release training/study or full-time study at

less than degree level education e.g. HND, City & Guilds, TOPS

2 = started degree level studies but dropped out

3 = obtained a degree or degree equivalent

4 = postgraduate studies

---

86 UNEMPLOYMENT [UNEMPLOY]

Length of time unemployed (looking for work) in months

---

87 SPENT LONG PERIOD ABROAD [ABROAD]

Did S spend more than three months abroad on a long holiday, travelling, doing casual work etc.

0 = no

1 = yes

---

88 LENGTH OF TIME OUT OF EMPLOYMENT FOR CHILDREARING

[KIDREAR]

Length of time out of employment due to childrearing in months

---

89 LENGTH OF TIME IN PART-TIME WORK [PARTTIME]

Length of time when working part-time in months (due to child rearing only)

---

90 CHILDCARE ARRANGEMENTS [KIDARRAN]

Main type of childcare arrangements used if worked when children were pre-school

0 = only worked at times when partner could look after children

1 = nanny

2 = au pair

3 = childminder

4 = nursery

5 = relative other than partner e.g. mother

6 = mixture of the above

---

91 INFLUENCE OF CHILDREN ON WORK [INFLKIDS]

0 = having children has had no influence on work

1 = having children has had a negative influence on work

2 = having children has had a positive influence on work

3 = having children had both a positive and a negative influence

-----  
92 INFLUENCE OF MARRIAGE ON WORK [INFLMARR]

- 0 = marriage has had no influence on work
  - 1 = marriage has had a negative influence on work
  - 2 = marriage has had a positive influence on work
  - 3 = marriage has had both positive and negative influences
  - 4 = failure of marriage has had a positive influence on work
  - 5 = failure of marriage has had a negative influence on work
- 

93 INFLUENCE OF HOUSEWORK ON WORK [INFLHSWK]

- 0 = no influence
  - 1 = housework suffers
  - 2 = personal stress and tiredness
  - 3 = work is affected
  - 4 = has paid help with housework
- 

94 SHARING OF HOUSEWORK [SHHSWORK]

If married or cohabiting is housework shared ?

- 1 = S does all / large majority of housework
  - 2 = S does more housework than partner
  - 3 = Housework is shared equally
  - 4 = Partner does more housework
  - 5 = Partner does all / large majority of housework
- 

95 FOLLOWING PARTNER [FOLLPART]

Have any career decisions been influenced by moving to be near boyfriend or husband ?

- 0 = no
  - 1 = S did move to be near boyfriend/husband or restricted herself to one geographical region
- 

96 MOBILITY NOW [MOBILNOW]

- 0 = no
  - 1 = perhaps, it depends
  - 2 = yes
- 

97 INFLUENCE OF LUCK [INFLLUCK]

- 0 = luck hasn't played a part in career
  - 1 = qualified response e.g. 'You make your own luck', taking up opportunities
  - 2 = luck has played a small part
  - 3 = luck has played a large part
- 

98 REGRET OVER CHOICE OF OCCUPATION [REGRETOC]

- 0 = S didn't express any regret about choice of present occupation
  - 1 = S expressed some regret about choice of present occupation
  - 2 = S regretted not going into present occupation earlier
- 

99 LENGTH OF TIME IN PRESENT OCCUPATION [LENOCC]

Length of time in present occupation in months

-----  
100 LENGTH OF TIME WITH PRESENT EMPLOYER [LENWEMPL]

Length of time with present employer or self-employed if  
self-employed in months

-----  
101 LENGTH OF TIME IN PRESENT POSITION [LENPOSIT]

Length of time in present position in months

-----  
102 SALARY [SALARY]

Excluding perks e.g. company car. translate to full-time rate  
if S works part-time

1 = A (<£4,000)

2 = B (£4,000 - £6,000)

3 = C (£6,000 - £8,000)

4 = D (£8,000 - £10,000)

5 = E (£10,000 - £12,000)

6 = F (£12,000 - £15,000)

7 = G (£15,000 - £20,000)

8 = H (>£20,000)

-----  
103 JOB SATISFACTION [JOBSAT]

Rated on a scale from 1 to 11.

-----  
Things S likes about job  
0 = not mentioned, 1 = mentioned

-----  
104 WORKING WITH PEOPLE / MEETING PEOPLE [LKPEOPLE]

-----  
105 NICE COWORKERS / INTERPERSONAL ATMOSPHERE [LKCOWORK]

-----  
106 GOOD SUPERVISOR / BOSS / MANAGEMENT [LKGDBOSS]

-----  
107 TRAINING / ORGANISING / SUPERVISING / DIRECTING  
OTHERS [LKSUPERV]

-----  
108 HELPING PEOPLE / BENEFITING SOCIETY [LKHELP]

-----  
109 AUTONOMY / INDEPENDENCE / FREEDOM / LACK OF CLOSE  
SUPERVISION [LKAUTON]

-----  
110 RESPONSIBILITY / DECISION MAKING / HIGH POWERED JOB  
[LKRESPON]

-----  
111 CHALLENGE / SENSE OF ACHIEVEMENT [LKCHALL]

-----  
112 INTERESTING WORK, ENJOY DOING THE WORK ITSELF,  
JOB CONTENT [LKINTWK]

-----  
113 INTELLECTUAL STIMULATION / PROBLEM SOLVING /  
CREATIVITY [LKINTEL]

-----  
114 PHYSICAL / MANUAL WORK [LKPHYSIC]

-----  
115 VARIETY OF WORK [LKVARIET]  
-----

116 UNPREDICTABILITY / NOT KNOWING WHAT WILL HAPPEN NEXT  
[IKUNPRED]  
-----

117 HIGH PRESSURE / FAST PACE OF WORK [LKHIGHPR]  
-----

118 SEEING END PRODUCT / RESULTS OF WORK / COMPLETING  
A JOB [LKENDPRD]  
-----

119 GETTING OUT AND ABOUT / VARIETY OF LOCATIONS  
[LKGETOUT]  
-----

120 HIGH PAY / FINANCIAL REWARDS [LKPAY]  
-----

Things S dislikes about job  
0 = not mentioned, 1 = mentioned

121 LACK OF CONTACT WITH PEOPLE [HTNOPEOP]  
-----

122 POOR RELATIONSHIP WITH COWORKERS / UNPLEASANT  
INTERPERSONAL ATMOSPHERE / WORKPLACE POLITICS [HTCOWORK]  
-----

123 SEXISM OF PEOPLE AT WORK E.G. COWORKERS, BOSS,  
CLIENTS [HTSEXISM]  
-----

124 LACK OF OTHER WOMEN AT WORK / BEING THE ONLY WOMAN  
[HTNOWOM]  
-----

125 POOR RELATIONSHIP WITH SUPERVISOR / BOSS /  
MANAGEMENT [HTBOSS]  
-----

126 LACK OF CONFIDENCE IN OWN ABILITIES [HTNOCONF]  
-----

127 HAVING TOO MUCH TO DO AT WORK / NOT ENOUGH TIME IN  
THE DAY [HTNOTIME]  
-----

128 BORING OR DIFFICULT PARTS OF JOB E.G. PAPERWORK  
[HTBORING]  
-----

129 ORGANISATIONAL PROBLEMS E.G. LACK OF TRAINING, LACK  
OF SECRETARIAL SUPPORT, BAD MANAGEMENT OF COMPUTER  
FACILITIES ETC., LACK OF RESOURCES, UNDERSTAFFING [HTORGPRB]  
-----

130 LONG HOURS / JOB TAKES UP TOO MUCH OF S'S LIFE,  
SHIFTWORK [HTHOURS]  
-----

131 LACK OF JOB SECURITY / UNPREDICTABLE AVAILABILITY  
OF WORK [HTNOJBSC]  
-----

132 POOR PROMOTION PROSPECTS / NOWHERE TO GO FROM HERE  
[HTNOPROM]  
-----

-----  
133 LOW PAY [HTLOWPAY]

-----  
134 LONG OR AWKWARD JOURNEY TO WORK [HTJOURN]

-----  
135 WORKING OUTSIDE IN BAD WEATHER [HTWEATH]

-----  
136 PHYSICAL WORKING CONDITIONS E.G. COLD, CRAMPED OFFICE  
[HTPHWKCD]

-----  
137 WORKPLACE HAZARDS E.G. DUST, FUMES [HTHAZARD]

-----  
138 THE WORK IS PHYSICALLY HARD [HTPHYSHD]

-----  
139 SEX OF COWORKERS [SXCOWORK]

- 1 = all coworkers are male
- 2 = more of coworkers are male than female
- 3 = equal no. of male and female coworkers
- 4 = more coworkers are female than male
- 5 = all coworkers are female

-----  
140 RELATIONSHIP WITH MALE COWORKERS [MLCOWORK]

- 1 = poor
- 2 = mixed
- 3 = good

-----  
141 SEX OF BOSS (IMMEDIATE SUPERVISOR) [SXBOSS]

- 1 = male
- 2 = female

-----  
142 RELATIONSHIP WITH BOSS [RELWBOSS]

- 1 = poor
- 2 = mixed
- 3 = good

-----  
143 TREATED DIFFERENTLY BY BOSS DUE TO BEING A WOMAN ?  
[BOSSDIFF]

- 0 = no difference
- 1 = treated differently (negatively)
- 2 = treated differently (both positively and negatively)
- 3 = treated differently (positively)

-----  
144 CLIENTS REACTIONS TO DEALING WITH A WOMAN  
[CLIENTRE]

- 0 = no difference, maybe initial surprise but no problems
- 1 = poor / negative reaction
- 2 = mixed reaction
- 3 = good / positive reaction
- 4 = poor initial reaction, but after that no problems

-----  
145 SEX OF SUBORDINATES [SXSUBORD]

- 1 = all male subordinates
- 2 = more male than female subordinates

3 = equal numbers of male and female subordinates  
4 = more female than male subordinates  
5 = all female subordinates

---

146 REACTIONS OF MALE SUBORDINATES TO HAVING WOMAN BOSS  
[MSUBORRE]

1 = poor  
2 = mixed  
3 = good

---

147 REACTIONS OF FEMALE SUBORDINATES TO HAVING A WOMAN  
BOSS [FSUBORRE]

1 = poor  
2 = mixed  
3 = good

---

Sexual harassment at work  
0 = not experienced, 1 = experienced

148 EVER EXPERIENCED SEXUAL HARASSMENT [EVSXHAR]

---

149 SEXUAL HARASSMENT IN PRESENT JOB [PJSXHAR]

---

150 SEXUAL HARASSMENT IN PREVIOUS MALE JOB [PMJSXHAR]

---

151 SEXUAL HARASSMENT IN PREVIOUS NEUTRAL JOB [PNJSXHAR]

---

152 SEXUAL HARASSMENT IN PREVIOUS FEMALE JOB [PFJSXHAR]

---

Type of sexual harassment  
0 = not experienced this type, 1 = experienced

153 PATRONISING TOUCHES E.G. ARM ROUND SHOULDERS  
[PATTOUCH]

---

154 SEXUAL TOUCHES [SEXTOUCH]

---

155 SEXUAL COMMENTS [SEXCOMM]

---

156 SEXUAL 'JOKES' [SEXJOKES]

---

157 PROPOSITIONS OF SEX [SEXPROP]

---

158 OTHER PROPOSITIONS E.G. PESTERING S TO GO OUT WITH  
HIM, TO GO FOR A DRINK, TO SIT ON HIS KNEE ETC. [OTHPROP]

---

159 INDECENT EXPOSURE [INDEXPOS]

---

Type of sexual harasser  
0 = not harassed by this type of person,  
1 = harassed by this type of person

160 HARASSED BY SENIOR, SUPERVISOR OR BOSS [HARBOSS]

-----  
161 HARASSED BY COWORKER, COLLEAGUE [HARCOWOR]

-----  
162 HARASSED BY CLIENT, PATIENT, CUSTOMER, SUPPLIER,  
SALES REP [HAROLIEN]

-----  
163 HARASSED BY SUBORDINATE [HARSUBOR]

-----  
Response to sexual harassment  
0 = didn't respond this way,  
1 = responded this way

-----  
164 IGNORED SEXUAL HARASSMENT [RESIGNOR]

-----  
165 JOKE OR LAUGH OFF SEXUAL HARASSMENT [RESJOKE]

-----  
166 NONVERBAL RESPONSE E.G. STARE COLDLY AT PERSON  
[RESNONVB]

-----  
167 PHYSICAL RESPONSE E.G. REMOVING HAND FROM KNEE,  
PUSHING HIM AWAY, WALKED AWAY [RESPHYS]

-----  
168 CALM VERBAL RESPONSE [RESCALM]

-----  
169 ANGRY VERBAL RESPONSE [RESANGRY]

-----  
170 MADE A COMPLAINT E.G. TO BOSS, UNION, NOT TO  
HARASSER HIMSELF [RESCOMPL]

-----  
171 PROBLEMS OF BEING A WOMAN IN S'S JOB [PROBLEMS]  
0 = no problems mentioned,  
1 = one or more problems mentioned

-----  
Specific problems  
0 = not mentioned, 1 = mentioned

-----  
172 HAVING TO BE BETTER THAN A MAN [BETTERMN]

-----  
173 PEOPLE ARE WATCHING TO SEE IF YOU MAKE A MISTAKE  
[MAKEMIS]

-----  
174 GIVEN LESS RESPONSIBILITY, EASIER JOBS [LESSRESP]

-----  
175 MORE CLOSELY SUPERVISED, DECISIONS NOT TRUSTED ETC.,  
ASSUMED OR EXPECTED TO BE INCOMPETENT [CLOSESUP]

-----  
176 NOT OFFERED EXTRA WORK / OVERTIME [NOOVERTM]

-----  
177 MEN FEEL THREATENED OR RESENTFUL [THREATEN]

-----  
178 PEOPLE ASSUME S WILL PLAY A WIFELY OR MOTHERLY ROLE  
[WORMROLE]

-----  
179 PEOPLE ASSUME S WILL PLAY THE SECRETARIAL OR JUNIOR  
ROLE OR IS A SECRETARY/JUNIOR [SECRELE]  
-----

180 FEMALE STEREOYPES, E.G. PEOPLE ASSUME S IS WEAK,  
SUBMISSIVE, THINK THEY CAN TAKE ADVANTAGE, STUPID,  
INCOMPETENT ETC. [FSTEREOT]  
-----

181 NEGATIVE REACTION TO SUPPOSEDLY NON-FEMININE BEHAVIOR  
READILY ACCEPTED IN MEN [NFNOTACCI]  
-----

182 BEING OR FEELING EXCLUDED [EXCLUDED]  
-----

183 PROBLEMS WITH 'MALE CULTURE' (UNCARING, COMPETITIVE,  
AGGRESIVE ETC. ATMOSPHERE), SEXISM [MCULTURE]  
-----

184 PRACTICAL PROBLEMS E.G. WITH TOILETS, CLOTHING ETC.  
[PRACPROB]  
-----

185 PHYSICAL PROBLEMS E.G. LACK OF STRENGTH, TOO SHORT,  
HARD TO WORK WELL WHEN GOT PERIOD ETC. [PHYSPROB]  
-----

186 ADAVANTAGES OF BEING A WOMAN IN S'S JOB [ADVANT]  
0 = no advantages mentioned  
1 = one or more advantages mentioned  
-----

Specific advantages  
0 = not metioned, 1 = mentioned

187 GET NOTICED, REMEMBERED [NOTICED]  
-----

188 SEXUAL INTEREST [SEXINT]  
-----

189 MEN MORE WILLING TO HELP [MENHELP]  
-----

190 EASIER TO ASK FOR HELP [ASKHELP]  
-----

191 WOMEN'S SPECIAL ABILITIES, 'FEMALE CULTURE' E.G.  
BEING MORE CARING, GETTING ON WELL WITH PEOPLE, MORE  
PATIENT, MORE CAREFUL ETC. [FCULTURE]  
-----

192 DEALING WELL WITH FEMALE CLIENTS, WOMEN LIKE DEALING  
WITH WOMEN [FCLIENTS]  
-----

193 MEN ARE MORE POLITE, REFRAIN FROM SWEARING ETC.  
[POLITE]  
-----

194 PEOPLE ARE LESS TOUGH ON YOU, MORE LENIENT [LENIENT]  
-----

195 HELPFUL PEOPLE / MENTORS [MENTORS]  
In S's present occupation has anyone been particularly  
helpful or supportive ?  
0 = no one



- 1 = female colleague, coworker(s)
  - 2 = male colleague, coworker(s)
  - 3 = female superior(s)
  - 4 = male superior(s)
  - 5 = mixture of the above
- 

**196 PRETENCE OF LESSER ABILITY OR INTELLIGENCE [LESINT]**

- 0 = no
  - 1 = yes, only when young e.g. at school, not for several years
  - 2 = yes, as a conscious strategy, a means to an end
  - 3 = yes, due to a lack of confidence in own abilities
  - 4 = yes, but only in social situations, not at work
- 

**197 WORRIES ABOUT SUCCESS [SUCCESS]**

- 0 = no worries about success
  - 1 = worry about boyfriend's/husband's reaction
  - 2 = worry about male coworkers reactions
  - 3 = worry about female coworkers reactions
  - 4 = expect some negative reaction, but it doesn't worry S
  - 5 = worry about own ambivalent feelings about success
  - 6 = reject success due to the stress, responsibilities, long hours etc. inherent in it
- 

**198 FUTURE PLANS - WORK [FPWORK]**

- 1 = expects to stay in same line of work, roughly at the same level for rest of working life
  - 2 = expects to stay in same line of work but at a higher level e.g. promotion, change of employer for more responsibility, set up own company etc.
  - 3 = undecided about staying in occupation, no ideas or several vague ideas
  - 4 = undecided about staying in occupation, two or three clearly thought out plans
  - 5 = expects to leave present occupation and undecided about new occupation
  - 6 = expects to leave present occupation and go into a male new occupation
  - 7 = expects to leave present occupation and go into a neutral new occupation
  - 8 = expects to leave present occupation and go into a female new occupation
- 

**199 WOMEN WITH CHILDREN, PLANS TO EXPAND FAMILY [EXPFAM]**

- 1 = want more children
  - 2 = undecided about having more children
  - 3 = no more children
- 

**200 WOMEN WITHOUT CHILDREN - WANT CHILDREN ? [WANTKIDS]**

- 1 = definitely don't want to / or can't have any children
- 2 = probably won't have children
- 3 = undecided about having children
- 4 = probably want to have children

5 = definitely want to have children

---

201 WOMEN WITHOUT CHILDREN - EXPECTED AGE WHEN HAVE CHILDREN  
[AGEBEMUM]

- 1 = early twenties (20-24)
  - 2 = late twenties (25-29)
  - 3 = early thirties (30-34)
  - 4 = late thirties (35-39)
  - 5 = forty plus
- 

202 EXPECTED NUMBER OF CHILDREN [EXPNOKID]

Of those who see themselves having children. Include women with children already, actual number if S says family is complete, expected number if not. Round up if S said 'one or two', 'two or three' etc

---

203 EXPECTED CHILDCARE BREAK [EXPCOBRKI]

- 1 = return full-time when child is 6 months or less
  - 2 = return full-time when child is preschool
  - 3 = return part-time when child is preschool
  - 4 = return full-time when child is primary age
  - 5 = return part-time when child is primary age
  - 6 = return full-time when child is secondary age
  - 7 = return part-time when child is secondary age
  - 8 = return full-time when child is grown up
  - 9 = return part-time when child is grown up
- 

204 EXPECTED INVOLVEMENT OF PARTNER IN CHILDCARE [HUBHELP]

- 0 = didn't mention partner's possible involvement in childcare
  - 1 = hoped to share childcare with partner and both work part-time
  - 2 = hoped that partner would look after children full-time
- 

205 SEX DISCRIMINATION RE COURSES [DISCRIMC]

- 0 = not discriminated against with regard to training, courses, etc.
  - 1 = possibly discriminated against
  - 2 = probably or definitely discriminated against
- 

206 SEX DISCRIMINATION RE SELECTION [DISCRIMS]

- 0 = not discriminated against
  - 1 = possibly discriminated against
  - 2 = probably or definitely discriminated against
- 

207 SEX DISCRIMINATION RE PROMOTION [DISCRIMP]

- 0 = not discriminated against
  - 1 = possibly discriminated against
  - 2 = probably or definitely discriminated against
- 

208 SEXIST INTERVIEW QUESTIONS [SEXISTIQ]

- 0 = never been asked about boyfriends, marriage and childbearing plans and childcare arrangements at job

interviews

- 1 = been asked these questions but don't object to them
  - 2 = been asked these questions and do object to them
- 

209 WOULD YOU ADVISE OTHER WOMEN TO GO INTO S'S  
OCCUPATION ? [ADVOTHWN]

- 1 = yes, definately, if they were interested in it
  - 2 = yes if they really wanted to, but I'd point out the difficulties etc.
  - 3 = no
- 

210 SEE SELF AS A FEMINIST ? [FEMINIST]

- 1 = yes, definately a feminist
  - 2 = yes S is a feminist but not a 'militant' feminist
  - 3 = don't know, depends on the definition, in some ways yes, in some ways no
  - 4 = no, not a feminist but S is pro equal opportunities
  - 5 = no, not a feminist
- 

211 MENTAL BREAKDOWN [BREAKDOW]

Did S mention having some sort of mental breakdown at any point in her life ?

- 0 = no, 1 = yes
- 

212 HATING / STRONGLY DISLIKING SCHOOL [HTSCHOOL]

- 0 = not mentioned
  - 1 = mentioned
- 

213 MATURE STUDENT [MATUREST]

- 0 = no
  - 1 = went to college/university at age 20+ to do a full-time undergraduate degree
-

# Appendix J

## Statistical Appendix to the Main Study

### Questionnaire variables

#### Work Values Questionnaire

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
Question 1				
mean	2.8	3.5	4.0	3.7
s.d.	1.4	1.0	0.9	1.1
Question 2				
mean	4.6	4.2	4.6	4.4
s.d.	0.5	0.8	0.5	0.7
Question 3				
mean	3.8	3.7	4.2	3.6
s.d.	1.0	0.8	0.7	0.8
Question 4				
mean	3.4	1.7	2.1	2.1
s.d.	1.2	0.9	1.3	1.1
Question 5				
mean	4.3	4.1	4.1	4.2
s.d.	1.0	0.8	1.0	1.1
Question 6				
mean	3.2	2.9	3.6	3.3
s.d.	0.9	1.1	1.2	1.1
Question 7				
mean	3.9	2.9	3.4	3.3
s.d.	1.2	1.3	1.2	1.1
Question 8				
mean	2.8	3.0	3.0	3.6
s.d.	1.1	1.1	0.9	0.9
Question 9				
mean	2.1	3.1	3.1	3.3
s.d.	1.3	1.2	1.4	1.4

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
Question 10				
mean	2.6	2.3	2.6	2.3
s.d.	1.8	1.3	1.5	1.2
Question 11				
mean	3.5	3.0	3.5	3.5
s.d.	0.9	1.4	1.3	1.3
Question 12				
mean	2.6	4.1	4.2	3.8
s.d.	1.2	1.0	0.8	1.2
Question 13				
mean	3.0	1.8	2.1	1.9
s.d.	1.8	1.4	1.4	1.5
Question 14				
mean	2.4	2.9	3.6	3.5
s.d.	1.2	1.3	1.1	1.3
Question 15				
mean	3.3	2.8	3.4	3.1
s.d.	1.6	1.3	1.4	1.2
Question 16				
mean	4.2	4.3	4.5	4.4
s.d.	0.7	1.0	0.7	0.8
Question 17				
mean	4.4	4.7	4.8	4.7
s.d.	0.8	0.8	0.4	0.5
Question 18				
mean	2.2	2.2	2.5	1.8
s.d.	1.7	1.3	1.5	1.3
Question 19				
mean	3.5	4.4	4.3	4.5
s.d.	1.5	0.7	0.8	0.8
Question 20				
mean	3.2	3.1	3.7	3.9
s.d.	1.0	1.3	1.1	1.1
Question 21				
mean	4.2	4.8	4.7	4.7
s.d.	1.1	0.4	0.6	0.5
Question 22				
mean	4.2	3.7	3.9	4.4
s.d.	0.8	0.9	0.8	0.6

### Perceived Job Attributes Questionnaire

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
Question 1				
mean	3.1	4.0	4.2	4.2
s.d.	1.4	1.0	1.0	1.1
Question 2				
mean	4.4	4.2	4.1	4.4
s.d.	0.9	0.6	0.7	0.6
Question 3				
mean	3.4	3.7	4.1	2.8
s.d.	1.3	1.3	0.7	1.5
Question 4				
mean	2.6	1.8	1.9	1.9
s.d.	1.4	1.1	1.4	1.1
Question 5				
mean	3.7	3.9	3.9	3.9
s.d.	1.5	1.4	1.0	1.2
Question 6				
mean	3.4	2.7	3.8	3.7
s.d.	1.0	1.4	1.3	1.5
Question 7				
mean	4.0	3.1	3.2	3.7
s.d.	1.3	1.4	1.2	1.5
Question 8				
mean	2.7	3.3	3.4	3.9
s.d.	1.4	1.1	1.1	1.1
Question 9				
mean	2.5	3.6	3.7	3.4
s.d.	1.6	1.5	1.4	1.8
Question 10				
mean	2.7	2.0	2.5	2.1
s.d.	1.8	1.3	1.7	1.3
Question 11				
mean	3.6	2.6	4.1	3.8
s.d.	1.2	1.4	1.1	1.5
Question 12				
mean	2.6	3.0	3.5	2.7
s.d.	1.1	1.5	1.3	1.2
Question 13				
mean	3.5	1.8	2.7	1.9
s.d.	1.8	1.4	1.6	1.4
Question 14				
mean	2.8	3.5	4.2	3.1
s.d.	1.3	1.0	0.8	1.1

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
Question 15				
mean	3.5	3.3	3.8	3.4
s.d.	1.5	1.4	1.3	1.2
Question 16				
mean	4.1	4.3	4.1	4.3
s.d.	0.8	1.0	1.0	1.0
Question 17				
mean	4.1	4.3	4.2	4.2
s.d.	1.1	1.2	1.1	0,9
Question 18				
mean	2.6	2.1	2.4	2.4
s.d.	1.6	1.5	1.4	1.6
Question 19				
mean	3.5	3.9	3.7	3.9
s.d.	1.7	1.2	0.9	1.4
Question 20				
mean	3.7	3.6	4.1	4.4
s.d.	1.1	1.1	1.0	1.2
Question 21				
mean	3.9	4.4	4.0	4.3
s.d.	1.1	0.7	1.2	1.0
Question 22				
mean	3.8	4.0	3.9	4.3
s.d.	1.5	0.8	1.0	0.9

### **Manifest Needs Questionnaire**

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
Need for achievement				
mean	4.6	5.4	5.0	5.1
s.d.	0.8	0.5	0.9	0.8
Need for affiliation				
mean	4.2	3.9	3.8	3.9
s.d.	0.5	0.7	0.4	0.6
Need for autonomy				
mean	4.2	4.0	4.3	4.3
s.d.	1.1	0.8	0.9	0.8
Need for dominance				
mean	3.8	4.9	4.9	5.0
s.d.	1.2	0.7	0.9	0.9

## Interview variables

For explanations of the variables names and values, refer to Appendix I.

The figures shown are frequency counts unless stated otherwise.

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
<b>RECRUIT</b>				
1	0	28	16	13
2	2	1	0	0
3	5	0	0	0
4	2	0	0	0
5	3	0	0	0
6	2	2	1	1
7	4	1	0	4
<b>LIVE</b>				
1	16	12	7	4
2	2	20	10	14
<b>WHEREINT</b>				
1	7	14	11	11
2	3	6	2	0
3	1	2	1	0
4	3	0	1	0
5	0	1	0	1
<b>WHENINT</b>				
1	9	13	7	7
2	5	5	7	4
3	0	5	1	1
<b>FORMDATA</b>				
1	6	8	5	1
2	5	13	3	7
3	2	0	7	3
4	1	2	0	1
5	4	9	2	6
<b>NATIONAL</b>				
1	15	28	17	17
2	2	0	0	1
3	1	4	0	0
<b>FULLTIME</b>				
1	13	30	17	17
2	1	0	0	0
3	4	2	0	1



<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
<b>SELFEMPL</b>				
1	9	29	17	16
2	6	0	0	0
3	0	1	0	1
4	2	2	0	1
5	1	0	0	0
<b>AGE</b>				
mean	32.6	32.4	33.1	33.2
s.d.	9.1	8.2	6.9	9.6
<b>CMARSTAT</b>				
1	13	18	10	8
2	2	3	1	3
3	1	0	0	0
4	2	11	6	7
<b>PMARSTAT</b>				
0	15	25	14	16
1	0	1	0	0
2	1	3	3	2
3	1	3	0	0
4	1	0	0	0
<b>AGEMARR</b>				
mean	22.6	24.3	24.8	24.8
s.d.	4.0	6.3	5.0	3.7
<b>SEXUALIT</b>				
1	5	27	11	12
2	2	0	0	0
3	11	5	6	6
<b>CHILDREN</b>				
0	14	23	10	14
1	1	4	1	0
2	3	3	3	2
3	0	0	1	1
4	0	1	0	0
5	0	0	0	0
6	0	0	1	1
7	0	1	0	0
8	0	0	1	0
<b>AGBECMUM</b>				
mean	28.8	27.2	23.6	25.3
s.d.	4.6	3.4	4.4	5.5

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
<b>AGEYGTKID</b>				
1	1	1	0	0
2	2	7	1	0
3	0	0	4	0
4	1	1	0	3
<b>FAMISZE</b>				
mean	2.9	2.5	2.4	2.9
s.d.	1.3	1.2	1.1	1.2
<b>BTHORDER</b>				
1	7	17	10	12
2	6	6	4	4
3	1	8	1	2
4	2	0	1	0
5	0	1	0	0
<b>SIBSTAT</b>				
1	2	6	3	1
2	5	11	7	11
3	4	4	2	3
4	5	11	4	3
<b>NOBROS</b>				
0	5	14	6	6
1	11	13	9	8
2	0	5	1	2
3	1	0	0	1
4	0	0	1	1
<b>NOELBROS</b>				
0	11	19	12	15
1	5	10	3	3
2	0	3	0	0
3	0	0	1	0
<b>NOSIS</b>				
0	6	16	10	6
1	5	9	6	10
2	4	4	1	1
3	2	3	0	1
<b>NOELISIS</b>				
0	10	25	14	14
1	4	5	3	3
2	1	1	0	1
3	1	1	0	0

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
SIBPION				
0	12	22	13	17
1	2	5	1	0
2	1	0	0	0
3	0	0	0	0
BROKHOME				
1	17	27	11	16
2	0	1	3	1
3	0	4	2	1
4	1	0	1	0
SEXPAREN				
1	18	30	14	17
2	0	2	3	1
3	0	0	0	0
SXDADJOB				
1	12	21	11	13
2	5	9	3	3
3	1	1	1	0
CLDADJOB				
1	5	5	3	3
2	13	26	12	13
SXMUMJOB				
1	11	24	11	16
2	4	5	2	1
3	1	1	0	1
MUMPION				
0	17	31	17	17
1	1	1	0	1
CLMUMJOB				
1	4	5	1	3
2	12	25	12	15
MUMWKHIS				
1	3	7	5	3
2	1	0	0	1
3	1	0	1	0
4	0	5	1	1
5	0	4	2	1
6	4	8	2	7
7	3	4	0	1
8	4	2	3	4
9	2	2	3	0

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
MUMUKSIT				
1	13	23	9	8
2	2	3	2	8
3	2	4	5	1
MUMUKJOB				
1	9	16	9	5
2	4	2	2	6
3	2	2	0	0
PERSPAR				
1	4	5	4	5
2	1	5	1	2
3	5	11	4	2
4	6	5	3	4
5	2	6	2	4
ATTSPAR				
1	1	4	3	4
2	4	8	4	3
3	11	14	6	7
4	1	3	1	0
5	1	1	0	3
CLOSEPAR				
1	6	5	6	6
2	2	8	3	6
3	7	9	3	2
4	2	5	2	2
5	1	4	0	1
PROBPAR				
1	4	3	2	1
2	0	5	1	0
3	4	1	2	1
4	10	23	12	16
HOMETOWN				
1	3	10	6	2
2	3	9	4	10
3	10	12	7	3
HOBREAD				
0	7	11	4	5
1	11	21	13	13
HOBWRIT				
0	17	31	15	17
1	1	1	2	1
HOBART				
0	9	30	15	15
1	9	2	2	3

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
PLAYOUT				
0	8	18	12	7
1	10	14	5	11
HOBMUSIC				
0	13	19	7	13
1	5	13	10	5
HOBSPORT				
0	7	14	12	8
1	11	18	5	10
HOBCLUB				
0	11	21	8	10
1	7	11	9	8
MALEHOB				
0	10	22	14	16
1	5	6	3	1
2	2	2	0	1
3	1	2	0	0
FEMALHOB				
0	14	12	6	10
1	4	12	6	6
2	0	6	4	1
3	0	2	0	1
4	0	0	1	0
SOLITKID				
0	16	28	14	16
1	2	4	3	2
TOMBOY				
0	4	11	6	6
1	3	7	5	4
2	11	13	6	7
MALEPALS				
0	16	30	12	16
1	2	2	5	2
SCHOOL				
1	4	2	0	0
2	7	7	4	4
3	4	10	4	14
4	3	13	9	0
COEDSCHL				
1	10	20	12	11
2	8	12	5	7
MALEOL				
mean	2.0	2.7	2.2	1.8
s.d.	1.0	1.2	1.3	1.1

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
MALEOLOF				
mean	3.2	3.5	3.1	3.6
s.d.	1.7	1.5	1.3	1.5
SIXFORM				
0	5	2	0	2
1	12	26	17	14
2	1	4	0	2
NOALEV				
mean	2.8	3.2	3.0	2.8
s.d.	1.0	0.6	0.9	1.2
NOMALEAL				
0	5	4	7	12
1	6	4	2	3
2	0	5	5	1
3	1	12	1	0
4	0	0	1	0
CHABIL				
0	7	15	9	4
1	5	10	8	9
CHENJOY				
0	5	7	4	3
1	7	18	13	10
CHCAREER				
0	10	17	8	9
1	2	8	9	5
CHFIT				
0	12	20	15	12
1	0	5	2	3
CHPAR				
0	12	20	15	12
1	0	5	2	3
HOLIDJOB				
0	5	4	5	5
1	12	28	12	13
MLHOLJOB				
0	12	28	14	15
1	5	4	3	3
SCEREC				
0	7	10	5	5
1	11	14	10	9
2	0	8	2	4

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
SCEHELP				
0	10	17	8	7
1	0	4	4	5
2	0	1	0	1
PSCEREC				
0	13	10	10	7
1	4	8	6	4
2	0	14	1	7
PSCEHELP				
0	3	6	3	8
1	0	4	4	3
2	1	11	1	3
CAREDINF				
0	14	20	15	17
1	1	4	0	1
2	0	3	2	0
IDEALOCC				
1	1	8	2	1
2	5	11	6	2
3	6	7	2	1
4	6	3	6	8
5	0	2	0	3
6	0	1	1	3
EARLPREF				
0	6	6	3	2
1	6	12	8	5
2	2	8	3	6
3	2	4	2	5
4	2	1	1	0
5	0	0	0	0
6	0	0	0	0
7	0	1	0	0
TEENPREF				
0	5	4	0	2
1	6	11	5	7
2	4	7	6	3
3	2	6	3	0
4	0	0	3	3
5	0	1	0	2
6	1	3	0	1
EARLMPRFF				
0	9	15	11	13
1	7	13	5	5
2	2	4	1	0

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
TEENMPRF				
0	10	9	6	9
1	6	9	6	7
2	2	11	5	2
3	0	2	0	0
4	0	0	0	0
5	0	1	0	0
AGEDECOC				
mean	27.9	22.7	16.5	22.0
s.d.	10.0	6.5	6.4	8.8
CONSIKID				
0	8	24	11	14
1	2	1	2	1
2	1	5	4	2
ROLMODEL				
0	13	21	9	11
1	0	0	0	1
2	2	4	3	4
3	0	0	1	0
4	0	3	3	1
5	0	4	1	1
PREVOCC				
0	1	11	11	9
1	4	9	2	3
2	3	4	1	2
3	3	6	2	1
4	3	0	1	3
5	1	1	0	0
6	2	0	0	0
7	0	0	0	0
8	1	1	0	0
PREVFOCC				
0	5	21	13	11
1	5	4	2	2
2	4	5	1	3
3	2	1	1	2
4	1	0	0	0
5	0	1	0	0
6	1	0	0	0



<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
PREVNOCC				
0	7	20	12	13
1	6	8	3	3
2	3	4	2	1
3	1	0	0	1
4	0	0	0	0
5	1	0	0	0
PREVMOCC				
0	14	24	17	18
1	3	5	0	0
2	0	3	0	0
3	0	0	0	0
4	1	0	0	0
HIGHERED				
0	3	1	0	0
1	3	5	1	5
2	3	3	0	0
3	8	17	10	7
4	1	6	6	6
UNEMPLOY				
mean	13.3	1.9	1.2	0.9
s.d.	20.7	4.4	4.4	2.0
ABROAD				
0	11	24	11	15
1	7	8	6	3
KIDREAR				
mean	21.0	25.8	15.0	57.3
s.d.	21.2	30.0	11.6	65.2
PARTTIME				
mean	6.0	13.9	40.8	86.0
s.d.	8.5	14.0	32.4	61.3
KIDARRAN				
0	0	0	1	0
1	0	2	0	0
2	0	1	0	0
3	2	3	2	2
4	0	2	0	0
5	0	0	0	0
6	1	0	0	0
7	0	0	2	0

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
<b>INFLKIDS</b>				
0	1	6	0	0
1	2	0	2	3
2	0	1	1	0
3	0	1	2	0
<b>INFLMARR</b>				
0	1	7	1	1
1	1	5	5	4
2	0	3	1	2
3	0	1	1	2
4	2	2	1	0
5	1	0	0	0
<b>INFLHSWK</b>				
0	3	11	8	9
1	5	6	3	2
2	2	1	1	1
3	0	0	0	0
4	0	5	3	5
<b>SHHSWORK</b>				
1	0	1	2	2
2	0	1	2	2
3	0	5	2	1
4	0	2	0	0
5	0	0	0	1
<b>FOLLPART</b>				
0	13	14	7	11
1	3	17	10	7
<b>MOBILNOW</b>				
0	4	10	7	5
1	2	9	6	7
2	11	13	4	6
<b>INFLLUCK</b>				
0	3	9	2	3
1	4	3	2	2
2	2	12	9	7
3	8	8	4	5
<b>REGRETOC</b>				
0	8	18	9	8
1	3	6	6	9
2	4	1	1	1
<b>LENOCC</b>				
mean	33.8	80.7	98.8	92.4
s.d.	32.6	93.8	78.7	95.1

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
LENWEMPL				
mean	25.1	38.3	43.4	39.5
s.d.	24.7	42.2	48.3	41.2
LENPOSIT				
mean	21.5	24.2	28.6	32.1
s.d.	23.4	36.5	36.3	40.5
SALARY				
1	0	0	0	0
2	6	0	1	1
3	5	2	0	4
4	1	8	2	5
5	2	6	1	2
6	3	5	4	3
7	0	8	6	2
8	0	3	3	1
JOBSAT				
mean	7.8	8.6	8.3	8.2
s.d.	2.5	1.4	1.8	2.1
LKPEOPLE				
0	14	15	9	7
1	4	17	8	11
LKCOWORK				
0	13	18	11	12
1	5	14	6	6
LKGDBOSS				
0	18	27	17	18
1	0	5	0	0
LKSUPERV				
0	17	26	15	16
1	1	6	2	2
LKHELP				
0	17	27	11	14
1	1	5	6	4
LKAUTON				
0	7	22	13	11
1	11	10	4	7
LKRESPON				
0	16	27	13	11
1	2	5	4	7
LKCHALL				
0	13	20	10	17
1	5	12	7	1

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
LKINTWK				
0	12	24	14	12
1	6	8	3	6
LKLIKINTEL				
0	14	24	14	17
1	4	8	3	1
LKPHYSIC				
0	16	32	17	18
1	2	0	0	0
LKVARIET				
0	17	21	14	11
1	1	11	3	7
LKUNPRED				
0	17	30	17	18
1	1	2	0	0
LKHIGHPR				
0	18	28	16	18
1	0	4	1	0
LKENDPRD				
0	13	31	16	16
1	5	1	1	2
LKGETOUT				
0	13	24	17	15
1	5	8	0	3
LKPAY				
0	14	26	17	16
1	4	6	0	2
HTNOPEOP				
0	17	28	17	17
1	1	4	0	1
HTCOWORK				
0	16	27	14	16
1	2	5	3	2
HTSEXISM				
0	16	28	17	18
1	2	4	0	0
HTNOWOM				
0	16	31	17	18
1	2	1	0	0
HTBOSS				
0	15	27	14	16
1	3	5	3	2

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
HTNOCONF				
0	16	30	17	18
1	2	2	0	0
HTNOTIME				
0	16	29	14	16
1	2	3	3	2
HTBORING				
0	12	25	10	11
1	6	7	7	7
HTORGPRB				
0	17	27	11	13
1	1	5	6	5
HTHOURS				
0	15	28	14	15
1	3	4	3	3
HTNOJBSC				
0	15	32	17	18
1	3	0	0	0
HTNPPROM				
0	18	31	16	16
1	0	1	1	2
HTLOWPAY				
0	15	30	15	13
1	3	2	2	5
HTJOURN				
0	16	29	16	18
1	2	3	1	0
HTWAETH				
0	15	31	17	18
1	3	1	0	0
HTPHWKCD				
0	18	31	16	17
1	0	1	1	1
HTHAZARD				
0	15	32	17	18
1	3	0	0	0
HTPHYSHD				
0	11	32	17	18
1	7	0	0	0

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
SXCOWORK				
1	6	0	2	3
2	2	2	1	13
3	1	3	2	0
4	2	10	7	2
5	7	17	4	0
MLCOWORK				
1	4	3	4	0
2	2	9	3	2
3	5	13	6	11
SXBOSS				
1	9	28	13	10
2	0	0	1	5
RELWBOSS				
1	3	2	1	2
2	1	7	3	4
3	4	17	8	10
BOSSDIFF				
0	2	16	8	6
1	4	5	2	1
2	1	1	1	0
3	0	5	1	3
CLIENTRE				
0	0	10	1	3
1	0	0	1	1
2	4	5	5	1
3	8	6	5	4
4	2	3	2	2
SXSUBORD				
1	1	2	4	2
2	0	3	3	7
3	0	3	2	0
4	0	7	1	0
5	3	5	2	1
MSUBORRE				
1	0	1	0	0
2	0	6	3	0
3	3	10	4	5
FSUBORRE				
1	0	2	0	0
2	0	2	0	0
3	0	12	7	6

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
EVSXHAR				
0	9	13	6	8
1	9	19	11	9
PJSXHAR				
0	14	18	7	11
1	4	13	9	6
PMSXHAR				
0	15	25	16	17
1	2	6	0	0
PNSXHAR				
0	15	29	15	15
1	3	2	1	2
PFSXHAR				
0	14	30	16	13
1	3	1	0	4
PATTOUCH				
0	8	18	9	8
1	0	1	0	1
SEXTOUCH				
0	7	10	7	3
1	1	9	2	6
SEXCOMM				
0	2	10	4	2
1	6	9	5	7
SEXJOKES				
0	8	16	9	9
1	0	3	0	0
SEXPROP				
0	8	15	7	7
1	0	4	2	2
OTHPROP				
0	7	13	5	6
1	1	6	4	3
INDEXPOS				
0	8	18	9	9
1	0	1	0	0
HARBOSS				
0	5	4	5	3
1	4	12	5	6
HARCOWOR				
0	6	8	7	6
1	3	7	3	3

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
HARCLIEN				
0	5	12	8	6
1	4	3	2	3
HARSUBOR				
0	9	12	7	8
1	0	3	3	1
RESIGNOR				
0	3	13	5	4
1	1	5	4	4
RESJOKE				
0	2	8	9	7
1	2	10	0	1
RESNONVB				
0	3	17	9	5
1	1	1	0	3
RESPHYS				
0	3	16	9	5
1	1	2	0	3
RESCALM				
0	2	12	5	6
1	2	6	4	2
RESANGRY				
0	4	16	7	7
1	0	2	2	1
RESCOMPL				
0	4	16	9	8
1	0	2	0	0
PROBLEMS				
0	4	6	2	N/A
1	14	26	15	N/A
BETTERMN				
0	18	23	15	N/A
1	0	9	2	N/A
MAKEMIS				
0	18	29	17	N/A
1	0	3	0	N/A
LESSRESP				
0	17	32	16	N/A
1	1	0	1	N/A
CLOSESUP				
0	15	29	14	N/A
1	3	3	3	N/A



<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
NOOVERTM				
0	16	31	17	N/A
1	2	1	0	N/A
THREATEN				
0	16	25	16	N/A
1	2	7	1	N/A
WORMROLE				
0	18	32	17	N/A
1	0	0	0	N/A
SECROLE				
0	18	26	10	N/A
1	0	6	7	N/A
FSTEREOT				
0	11	27	14	N/A
1	7	5	3	N/A
NFNOTACC				
0	17	28	17	N/A
1	1	4	0	N/A
EXCLUDED				
0	17	27	15	N/A
1	1	5	2	N/A
MCULTURE				
0	12	21	15	N/A
1	6	11	2	N/A
PRACPROB				
0	16	28	17	N/A
1	2	4	0	N/A
PHYSPROB				
0	16	30	17	N/A
1	2	2	0	N/A
ADVANT				
0	6	11	3	N/A
1	12	21	12	N/A
NOTICED				
0	18	23	13	N/A
1	0	9	2	N/A
SEXINT				
0	18	25	14	N/A
1	0	7	1	N/A
MENHELP				
0	13	27	11	N/A
1	5	5	4	N/A

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
ASKHELP				
0	18	30	15	N/A
1	0	2	0	N/A
FCULTURE				
0	12	29	9	N/A
1	6	3	6	N/A
FCLIENTS				
0	10	29	10	N/A
1	8	3	5	N/A
POLITE				
0	15	30	14	N/A
1	3	2	1	N/A
LENIENT				
0	18	30	13	N/A
1	0	2	2	N/A
MENTORS				
0	5	8	4	6
1	2	0	1	1
2	1	1	0	0
3	1	0	1	3
4	2	21	8	7
5	1	2	3	0
LESINT				
0	8	11	7	9
1	0	4	1	0
2	1	8	2	6
3	2	3	2	2
4	0	5	5	1
SUCCESS				
0	9	17	10	13
1	0	0	2	1
2	1	2	0	0
3	0	0	0	2
4	0	6	2	0
5	5	3	1	1
6	0	3	2	1

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
<b>FPWORK</b>				
1	3	0	3	3
2	9	24	6	5
3	3	1	2	3
4	1	4	2	1
5	2	2	1	2
6	0	1	2	2
7	0	0	1	0
8	0	0	0	1
<b>EXPFAM</b>				
1	0	1	1	1
2	2	1	1	0
3	2	7	3	3
<b>WANTKIDS</b>				
1	5	7	3	4
2	4	2	2	3
3	1	4	1	1
4	1	3	1	0
5	2	7	5	6
<b>AGEBEMUM</b>				
1	1	0	0	0
2	2	3	3	2
3	1	7	2	3
4	2	4	1	2
5	0	0	1	0
<b>EXPNOKID</b>				
1	0	5	0	0
2	6	8	6	3
3	0	4	3	3
4	0	2	0	1
<b>EXPCCBRK</b>				
1	1	6	4	2
2	1	1	1	2
3	3	6	3	2
4	0	0	0	0
5	0	0	1	1
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0

<i>Variable</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
HUBHELP				
0	5	13	8	8
1	0	2	0	1
2	0	2	1	0
DISCRIMC				
0	16	31	16	18
1	1	0	0	0
2	0	1	1	0
DISCRIMS				
0	9	19	12	15
1	3	7	3	2
2	5	6	2	1
DISCRIMP				
0	14	22	14	16
1	2	6	1	0
2	1	4	2	2
SEXISTIQ				
0	5	6	6	8
1	1	8	1	0
2	4	15	6	6
ADVOTHWN				
1	11	24	12	10
2	5	4	3	5
3	2	2	2	2
FEMINIST				
1	1	4	3	1
2	2	4	4	6
3	0	6	1	2
4	1	7	5	5
5	14	10	4	4
BREAKDOW				
0	13	31	17	16
1	5	1	0	2
HTSCHOOL				
0	10	30	14	16
1	8	2	3	2
MATUREST				
0	16	28	14	17
1	2	4	3	1