Nature of the relationship between individual learning styles of female police officers and their career aspirations and experiences

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A thesis submitted in partial fulfilment of the University's requirements for the Degree of Master of Philosophy

May 2011

Coventry University in collaboration with the University of Worcester

ABSTRACT

This research was undertaken by a serving female police officer, within a British police force. It builds upon the existing literature concerning the career aspirations and experiences of female police officers on the one hand, and learning styles theory on the other. It uses the Honey and Mumford (1992) Learning Styles Questionnaire (LSQ) widely used within police training.

It examines whether any relationship can be demonstrated between learning styles theory (and in particular the LSQ) and female police officer career aspirations. The methodology is qualitative, starting with creating an introductory baseline drawn from 286 qualitative questionnaires completed by new recruits during their training, (74 female). These clarified issues about learning styles with both sexes, against which the female perspective could be better understood. The main research was based on semi-structured interviews which were conducted with female officers with a range of policing experience and service, from constable to chief constable rank.

Officers were found to uniformly have a moderate preference for the Activist, Reflector and Theorist learning styles, with a low preference for Pragmatist. New recruits average on Reflector style was found to be higher than other groups which could reflect some bias in the selection process. Learning styles were found to be not static but malleable, and not a central factor in career aspiration and decisions. During the interviews, the most popular career aspirations for women were community/family support duties, C.I.D. and firearms. There was no evidence found to indicate that females are more undecided in their career aspirations than men. Female officers rated highly the need to undertake challenging work, including the opportunity to specialize, calling into question the decrease of the availability of such roles for police officers. The findings reveal a gap in the way in which the police gather deployment data, and interviewees claimed that officers of ACPO rank were reported as interfering with the career choices of subordinates. No strong relationship was found between learning styles and career aspirations, albeit some weak relationships were found between learning style preferences and career experiences.

This study is a contribution to knowledge through its emphasis on the experiences of individual officers and their preferred learning styles. Findings contribute to existing

knowledge by developing a conceptual framework identifying the combination of attributes exhibited by successful officers.

Acknowledgements

I would like to express my thanks to those police officers who gave so generously of their time to assist me in this research. Without their help and involvement this research would not have been possible.

To my supervisor Dr Stephen Bigger I should like to extend my thanks for his valued guidance.

Last but not least, I should like to express heartfelt thanks to my husband David for his extensive support and encouragement.

Glossary

A.C.C. Assistant Chief Constable

A.C.P.O. Association of Chief Police Officers - comprising of Assistant

Chief Constables and above

Bramshill Location of Police College

C.C. Chief Constable

D.C.C. Deputy Chief Constable

D.I. Detective Inspector

D.C.I. Detective Chief Inspector

COMPSTAT Organizational Management Tool

Insp. Police Inspector

Learning Strategy The approach that an individual adopts to overcome the

limits of their thinking style

P.C. Police Constable

P.S. Police Sergeant

Supt. Police Superintendent

Thinking Style An automatic way of organising and processing

information during learning

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CHAPTER ONE

Introduction

"My top priority will always be my Husband and children ... it never hit home to me until my eldest daughter was about 6 and I'd sustained a black eye and she sort of said 'Mum', 'Yeah', 'Could you sort of not work in the Police any more, I'd like you to become a Dinner Lady in school.' ... some of the kids' mothers used to go in and help out as Teacher Aids ... She said 'You know you can ladle out the custard or something' and I thought oh I can't do that, I'd rather get a black eye." (Kathleen/Int 8/26/DS)

1.0

Kathleen (all names are fictionalised) is a Detective Sergeant with twenty six years service as a police officer. Her comments reflect the attitude of many female officers towards what they would refer to as their profession and its attendant risks. This research was born from a desire to discover what influences female officers in making their career decisions.

1.1 Rationale

The majority of the existing literature on the Police service focuses on the male perspective but work on the female perspective is growing. In the main this literature is concentrated on issues of discrimination and harassment (Anderson, Brown and Campbell, 1993; Heidensohn, 1994). My thesis asks whether learning style preferences (an under-researched area in the literature) affects career choices and aspirations. Learning style questionnaires have a routine place in police training, so their appropriateness is an issue. In examining the driving forces which dictate the career choices of women within the police, I will examine the extent to which learning style influences choices, if at all.

Few in-depth studies of the police have been undertaken by 'insiders' who are themselves Police Officers. The police organisational culture can be a difficult one to penetrate even when part of it. Holdaway (1983) suggests that "Any effective research strategy would have to pierce their protective shield if it was to be successful" (p.4). Hofstede (1994) refers to organisational culture as "wholes ... their flavour can only be fully appreciated by insiders" (p.197). I undertook this research using in-depth

interviews as an insider. Having served in a variety of roles, this provided a unique 'insider' perspective and position within the research.

1.2 Research Question

Following previous research (Parker, 2000) of the career choices of female colleagues and perceived influences, a research question was formulated:

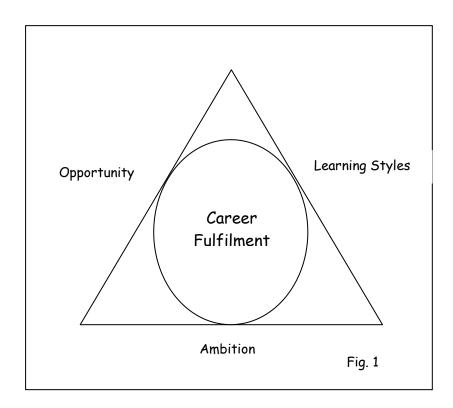
Is there a relationship between the career aspirations of female police officers and their individual learning style(s)?

The Learning Style Questionnaire (LSQ) is widely used in police training, and I felt that interesting insights might result into career choices. If no relationship was found, this would eliminate one explanation as to the differences observed between individuals and their job roles. It was also expected that the interviews would throw some light on career choice motivations and issues.

The research objectives were to:

- Determine the learning styles of a sample of female police officers within the selected British Police Force region, with comparative data from male police officers.
- 2. Analyse their early career aspirations.
- 3. Discover patterns in staff deployment of female officers to see if there is a match or mismatch of aspiration to reality.

These objectives were informed by an initial conceptual framework (see Fig. 1). This framework developed from my observations of the deployment of female officers, and my wish to understand the influences that resulted in how officers progressed within the service. Police officers often refer to the need to feel happy and fulfilled within their duties, and habitually refer to particular departments or roles where they had felt that fulfilment. Often female officers would refer to a desire to work in a particular role, and would mention luck or opportunity as playing a pivotal part in their success or otherwise. From this I developed my initial conceptual framework:



The Study was conducted in my British Police Force region (anonymised). As a police trainer I regularly used the Honey and Mumford (1992) Learning Style Questionnaire with police students, and started to consider whether there may be a correlation between learning styles, ambition and opportunity to achieving the desired career fulfilment (Fig. 1). My contribution to knowledge is to track the information drawn from the LSQ through the aspirations and career choices of a sample of female police officers as a means of evaluating the use of this instrument as a predictor of and contributor to career choices. In theorising this process, I will draw upon learning theory (including learning styles), and feminist theory (including life narrative research).

1.3 Organisation of the Chapters

- This first chapter will provide the contextual setting and history of women's introduction into the police service. It examines the deployment statistics of female officers using records held by the force in which the research was undertaken and from the Home Office. It provides the rationale for the research, together with the aim and objectives for the study.
- Chapter Two explores the literature in relation to the background and current understanding of learning styles, the educational theory upon which it is based and how learning style can be measured. It reviews the literature relating to

some of the better known learning style instruments, reviewing the strengths and weaknesses of each and the context in which they have been used or reviewed.

- Chapter Three examines the current literature relating to female police officers' in today's modern police service, looking at the progress and difficulties experienced by females within the service. It explores aspects of the police organisational culture and reviews the literature relating to the deployment, career aspirations, choices and motivation of females.
- Chapter Four describes the research design and data collection methods which were utilised during the research, including the methods employed for the recording, presentation and analysis of the data.
- Chapter Five discusses a range of methodology issues pertinent to the study.
- Chapter Six describes the analysis of the data obtained from questionnaires and interviews and where appropriate making links to the themes emergent from the interviews. This examines the influence of Learning Style on career choices, and looks at the aspirations of new recruits and junior officers.
- Chapter Seven contains the conclusions from this research, recommendations for the police service, practitioners and suggestions for further research to be undertaken.

1.4 Historical Perspective

Women police emerged in politically ambiguous ways which had a lasting legacy of prejudice. Women were first introduced into policing after the first world war, replacing men who were on active service in the military (Carrier, 1988). The first 100 official posts were created for females in 1919, primarily to deal with women and children, but they did not have any legislative authority (Carrier, 1988; Heidensohn, 1992). The investigation of crime remained the domain of the men.

In 1922 females were given legislative powers equal to male officers, they were not expected to carry out any duty which they might be "physically unfitted to carry out" (Carrier, 1988, p.142). The Children and Young Persons Act of 1933 required that

'specialist' women officers dealt with children and young persons. This sexual division of labour officially continued for over 40 years until the implementation of the Equal Pay Act (1970) and the Sex Discrimination Act of 1975 (Lock, 1978; Jones, 1987). The success of formal equal opportunity policy and legislation has however been called into question (Jones, 1986, Beck, 2002). As a legacy of this, debate still revolves around the physicality of the role and suitability of women for some duties

Over the last three decades the police, has been seen "as under-representative in terms of race, gender and culture." (Reiner, 1992, p.90). The number of female officers is increasing but as Hofstede (1994) notes:

"Simply having women work in the same numbers and jobs as men does not necessarily represent their liberation." (p.103).

In 1919 there were approximately 150 policewomen in England and Wales (Critchley, 1978). In 2009, 36,187 female officers serve in England, Wales and within Central Service, representing 25.1% of overall police officer strength (Home Office, 2009).

1.5 Documentation - Home Office and Police Statistics on Deployment

In order to gain contextual data providing the gender and distribution of officers by rank, details of the formal returns to the Inspectorate of Constabulary at the Home Office were obtained. This was done prior to commencing the research, and any statistics included are intended descriptively only and no statistical significance claimed. It was established that as at 31.3.2002 the Force in question employed 534 female officers, of which 11% were of Sergeant rank or above (Home Office, 2002). As at 31.3.2009 the figures had increased to 753 female officers, of which 15% were of the rank of Sergeant and above (Home Office, 2009). This represented a 40% increase in female officers during that period.

At the start of the research the Personnel Department of the force in question provided statistics regarding the deployment of female officers within the organisation. This originated from Home Office Statistical Returns; Her Majesty's Inspector of Constabulary Form (HMIC1 Form). This provided current and historical data on the force in question as to the gender and deployment of all officers, providing a context for the research, and data for Objective 3. It had been hoped to be able to obtain information concerning the 'career tracking' of individual female officers, but this was felt to breach the Data

Protection Act. It was therefore decided to interview experienced officers about their career choices. Later in the study further data were obtained from both the force and the Home Office, and this was used contextually. The NPIA (National Police Improvement Agency) national police library facilities were also utilized.

This research is predominantly about women, but some comparative data is offered about male police officers in equivalent positions. As Holdaway and Parker (1998) pointed out: "To understand images of women is at the same time to learn about images of men" (p.42).

1.6 Deployment Statistics

The force where the study was conducted provided data relating to the rank and deployment of male and female officers. Table 1 provides the data for the force showing the percentage of female officers at the various ranks (Home Office, 2009). As can be seen nearly 24% of the entire force is female.

Table 1

Force Statistics by Rank			
Rank	Percentage of		
	which female		
Constable	26.7%		
Sergeant	16.1%		
Inspector	11.7%		
Chief Inspector	15.6%		
Superintendent and above	15.0%		
All ranks inclusive	23.9%		

There is a high concentration of females at the Constable rank. The lowest representation of females appears at Inspector level, with an increase in the higher ranks. All police officers upon joining the force must enter at the rank of Constable. The distribution of officers across the ranks illustrates the increased

intake of female officers who are then concentrated at the Constable rank. There is a dip in representation of females at Inspector level. The numbers of female officers in this force have almost reached the critical mass of 25% of the workforce (the point at which Kanter (1977) postulated that any minority group in an organisation would be able to effect change); but the majority of women officers are concentrated at the lower, less influential ranks. Silvestri (2003) argues that numbers alone may not effect change, and that a small number of strategically placed women possessing what she describes as "gender consciousness" (p.138) could exert more influence. This view would certainly

seem to be borne out as can be observed within forces with female champions for the furtherance of women within the service.

1.6.2 Records held by Forces

The case-study force kept no records of what type of duties female staff performed. This made it impossible to establish how many women worked within all the various specialist departments. One Basic Command Unit (B.C.U.) incorporated the Mounted, Firearms, Dog and Air Support Sections and when approached it provided details of how their officers were deployed as at 31.3.2008. The names of the sections have been changed to protect anonymity, and the data from this is shown in Table 2 below:

Table 2

Deployment - Dog, Mounted, Firearms, Air Support Sections			
Unit	Total number of Officers	Males	Females
Dog	51	48 (94%)	3 (6%)
Mounted	9	2 (22%)	7 (78%)
Firearms	63	61 (97%)	2 (3%)
Air Support	3	3 (100%)	0 (0%)

These findings are supported by Boni (1998) who also found under-representation of women within specialist departments such as Dog handling, Traffic and Criminal Investigation (C.I.D.). Brown (1998a) also had similar findings. Some practices which had contributed to this low representation have now ceased such as the requirement to be able to carry a police dog, and firearm weapons being too large for smaller hands. There are still some issues relating to other more suitable equipment (Bebbington, 2008). Despite some of these obstacles being removed the overall representation has altered little. This is also the case in relation to authorised firearms officers. Brown and Sargent (1995) found that nationally only 2.6% of firearms officers were female, and this study found the situation in the force in question to have altered little at 3%.

My review of the literature to date has not revealed any previous work of a similar nature to this study. It therefore fills a gap discussing whether learning styles relate to career choices, and what other mechanisms may be at work. This research will be a precursor to further work in this area as to how and why learning styles change, and whether learning styles can be predictors of particular roles or professions. Learning styles and their claimed effects will be problematized to establish how reliable and influential they are in police career planning. It is therefore to the literature review in relation to learning theory and styles that I now turn.

CHAPTER TWO

Review of Literature: Learning Theory and Styles

2.1

The literature on learning styles is "extensive, opaque, contradictory and controversial" (Coffield et al., 2004, p.2), spanning over at least four decades (Cassidy, 2004) therefore presenting a daunting task for researchers. Due to the variety of disciplines in which research has been undertaken, it has become "fragmented and disparate" (Cassidy, 2004, p.419), and research into learning styles has been described as "a continuing story of work in progress" (Rayner, 2007). It was therefore decided at an early stage that the approach to a literature review on learning styles must commence with an understanding of learning theory. Behaviourist, humanist and cognitivist traditions are discussed, together with research on 'cognition' and educational theory pertinent to the research (Bruner, Goodnow and Austin, 1956; Gardner, 1993; Riding and Rayner, 1998). David Kolb's model of experiential learning (Kolb, 1984) is discussed, which was a precursor to Honey and Mumford's Learning Styles Questionnaire (L.S.Q.) the instrument selected for this research. Kolb worked in the humanist tradition, but located the origins of his theories in the work of Dewey (a humanist), Piaget (a cognitivist) and Lewin's theories of change management (Kolb, 1984).

2.2

The three main theories or schools of thought provide different approaches to learning: Behaviourist, Humanist and Cognitivist. I will examine each, whilst acknowledging that the learning styles theory utilized in the LSQ is based on humanist and cognitivist concepts. I will commence with Behaviourism as this was the approach adopted with most police training that future respondents would most readily recognise, and which could potentially impact on their style of learning.

2.2.1 Behaviourist

This theory suggests that we respond to stimuli from our environment, referred to as the Stimulus-Response (S-R) model. Pavlov taught dogs to salivate at the sound of a bell (Reece and Walker, 1997). Behaviourists believe that behaviour can be altered by reinforcement. Positive behaviour is reinforced by reward, whilst unwanted behaviour is

treated with negative reinforcement, named by Thorndike as the law of effects (Richardson, 1998). Behaviourists need to maintain control over the learning, and create a structure for learning. Skinner developed this theory further, as 'operant conditioning' based on a sequence of learning, where each new step builds upon the one before (Ashman and Conway, 1997). He also argued that behaviour is shaped by appropriate reinforcement (Curzon, 1997).

Robert M. Gagné (1985 [1965]) a neo-behaviourist, concentrated on the theory of instruction, developing a model that highlighted eight classes of hierarchically related learning skills. These he described as:

- 1. Signal Learning Learn a standard response to a simple stimulus or signal. Also known as classical conditioning.
- 2. Stimulus-Response Learning Learn to change our response by discriminating between stimuli (unlike signal learning the reward being presented *after* the response).
- 3. Chaining Connecting of a sequence of two or more stimulus-response connections (e.g. learning to ride a bike).
- 4. Verbal Association The learning of verbal chains (e.g. the times table).
- 5. Discrimination Learning Making different responses to similar stimuli.
- 6. Concept Learning The ability to classify and link together similar phenomena or occurrences.
- 7. Rule Learning The relationship between concepts in different situations (e.g. if A then B).
- 8. Problem Solving Re-combining old rules into new ones.

They gradually develop more complex problem solving abilities (Curzon, 1997).

The behaviourist school of thought assumes heteronomy, i.e. reliance upon others (accepting their rules) or external influences to learn. Learning could take place more from fear of the consequences of failing to learn than for any intrinsic value linked to the autonomous approach favoured by humanism. It is acknowledged that some learning does fall within this category, but it is problematic whether deeper more meaningful learning occurs as a resulting outcome of conditioning. Within policing circles the concept of behaviourist reward and punishment methods are familiar.

2.2.2 Humanist

The most notable humanist theorist was John Dewey (Dewey, 1998 [1938]). Other humanist education theorists include Carl Rogers (1990) and Abraham Maslow (1970). These argued that people learn by making their own discoveries, at their own pace and direction, with appropriate support. They envision teachers as facilitators of student-centred learning. It is based on the Socratic discursive approach where teachers discuss, thereby assisting the development of critical thinking. Learning is viewed as coming from experience and self-discovery, which is followed by some form of reflection on that experience with students at the centre of the learning experience. Autonomous learning is advocated, that is the student taking ownership of the new insights.

Dewey, a pragmatist in the United States (Hildebrand, 2008) described learning as learning to think. He advocated the benefits of having an experience and then reflecting on it, the only true test of learning being its practical result. He viewed education as being linked to social growth and contributions to society in general (Dewey, 1998). Dewey rejected authoritarian teaching methods, and regarded effective education as the ability to solve problems. He indicated how philosophical ideas can work in everyday life. He believed that educational principles should be emphasised by learning through activities and experience. He placed emphasis on the role of the teacher, and reflective practice, adopting a pragmatic approach to education (Knowles, Holton and Swanson, 1998).

Abraham Maslow's (1970) theory of motivation revolves around the assumption that there are 'levels' that a learner must progress through in order to reach a state of actualisation. This 'hierarchy of needs' model has been enormously influential. Carl Rogers' psychotherapy practices were client-centred, generally called 'talking therapy'. He argued that deep self-discovery significantly influences behaviour and attitudes. (Rogers, 1990; Rogers, 1996, Rogers and Freiberg, 1994). Eric Berne's Transactional Analysis places people one of three ego states: Parent, Adult or Child: he argued that communication between people can go seriously amiss if attitudes become confused or lines become crossed (Berne, 1964). This theory of transaction relates to how people interact, and is commonly referred to within police training. If a police officer adopts the authoritative or 'critical parent' ego state in difficult situations it can be a source of conflict in dealing with the community. Officers are encouraged to stay in the adult state when communicating with members of the public.

Kolb (1984) the originator of Experiential Learning Theory (E.L.T) and fully discussed below (see section 2.4 relating to learning styles), relates his work's "intellectual origins" (p.20) as the work of Dewey, Lewin and Piaget. It is upon Kolb's work that Honey and Mumford (1992) based their LSQ which is utilized in this research. Kolb worked in the humanist tradition.

2.2.3 Cognitivist

Cognitivists focus on the way we obtain and organise knowledge; it is an academic approach hinging on logically presented information. It examines how we create our own patterns of meaning, fitting new information into our existing patterns of knowledge. Notable cognitivists include Piaget, Bruner and Vygotsky. Piaget explored the changes in internal cognitive structure conducted a study using children. identified four set natural stages of mental growth (defined as sensorimotor, preoperational, concrete operational and formal operational), these stages were, he claimed unaffected by teaching (Brainerd, 1978). Bruner (1960) advocated 'inquiry' learning, he posited that students must be taught how to analyse problems and how to "learn how to learn" (1960, p.6), or think for themselves in order to become independent learners. This ability to monitor one's own thought and learning processes, is better explained as being aware of how you problem solve and make decisions. It is also referred to as meta-cognition (Coffield et al., 2004). Vygotsky focused on the relationship between thought and language. His Zone of Proximal Development theory (ZPD Theory) was based upon the importance of gradual conceptual building, with expert guidance, providing a foundation for hastened cognitive development (Biggs and Moore, 1993).

Curry (1991) supports this approach together with learning styles for researchers interested in improved prediction of career choice. Cassidy (2006) from his study of the relationship between learning style and student self-assessment skills suggests that learning style may be "legitimately bracketed with metacognative skills" (p.174), which would appear to suggest that learning styles can themselves be learnt or modified.

Bruner (1960) was an advocate of intuitive thinking supported by using a heuristic method such as experimentation - a system of education under which pupils are trained to discover solutions for themselves. He considered the acquisition of knowledge as the first step of a process in which checks are made against existing knowledge, and the

new knowledge is evaluated in the light of a new situation. He explored how mental processes and gaining understanding of the structure of a subject could be linked to teaching. He sees the teachers' role as that of a facilitator aiding the students own discovery known as 'inquiry training'. He posited the concept that no subject is too difficult to teach if started at the appropriate level, discussing the advantages of the 'spiral curriculum' (Bruner, 1960, p.52) a method that turns back on itself on higher levels and in greater depth (Riding, 2002), encouraging the development of the learner.

He disagreed with rigid interpretations of Piaget stating that the "intellectual development of the child is no clockwork sequence of events; it also responds to influences from the environment" (Bruner, 1960, p.39) (see also Bruner et al., 1956; Gagné, 1985). Bruner (in Bruner and Sherwood, 1976) referred to the concept of providing a "scaffold" (p.58) for learning where there is a process of building up learning to facilitate cognitive progress, where the teacher enhances learning by providing structure. Scaffolding, or embedded teaching refers to a process of one to one teaching (Wood, Bruner and Ross, 1976; Biggs and Moore, 1993) and similarities to Bruner's spiral curriculum can be seen.

Ausubel described effective learning as the link between new learning to existing cognitive structures. He advocates the use of bridges or links between old and new information. He outlines the importance of the existing hierarchical structures, which enable further structures to be built onto those existing, thus enhancing meaningful learning (Gagné, 1985). This could be an explanation of how new learning fits into existing knowledge, and would appear to agree with the stance taken by Bruner.

These theories concentrate on the process of learning as opposed to the responses as highlighted in Behaviourism. Cognitivists look at the structure of how new information is fitted into existing structures and assimilated as new understanding. Whilst Behaviourists looked to the environment, Cognitivists adopt a more holistic approach.

2.3 Development of Learning Styles Theory

Leaning styles theory was developed out of these three schools of thought, by focusing on how we learn. Kramlinger and Huberty (1990) makes links between Cognitivists who are interested in how the brain works as answering the WHAT questions, humanists the WHY, and behaviourists as answering the HOW questions. Humanists are interested in

how people can be motivated to learn, and how learning can be made relevant to life's situations and circumstances, both Kolb and Honey and Mumford could therefore be described as humanists.

Links can be seen to Kolb's experiential learning cycle (ELC). Honey and Mumford (1992) identify four learning styles which they also link to the ELC (see Fig. 2). Both these models are discussed later.

2.3.1 Cognition

The word cognition is derived from the Greek word for knowing, with concepts being units of cognition (Richardson, 1998). "What you know and think (cognition) obviously interacts in a very substantial and significant way with the type of person you are (personality)" argues Flavell, Miller and Miller (1993, p.3). Kayes adds:

"Cognitive learning focuses on individual and group thinking processes such as memory, perception, mental models, schemas, and representations" (2002, p.138).

Gagné described schemas as a

"collection of ideas and the relationships among them that form a category that the learner "understands"... schemata represent the way people's knowledge is organised in long-term memory" (1985, p.167).

Argyris linked schemas into what he referred to as single loop and double loop learning (Argyris, 1976). Single loop learning is where new information fits neatly into an existing schema allowing the learner to respond quickly; double loop learning occurs where the new information does not fit the existing schema and changes to the schema are necessary. Kurt Lewin describes change processes referred to as unfreezing, changing and freezing (or refreezing) which must occur for learning to take place. This position would support Argyris theory of double loop learning being possible only by reviewing or unfreezing previous schema.

Are Learning Styles really Cognitive Styles?

The initial focus of the literature review was learning styles. It was soon discovered that

"One of the problems with the field of 'learning styles' has been the multiplicity of terms and definitions used by researchers from different disciplines." (Sadler-Smith, Allinson and Hayes, 2000, p.243)

This manifested itself within the literature, providing confusing and at times conflicting sets of terminology. After thirty years of research in this area there is still no consensus regarding the vocabulary (Rayner, 2007). In an attempt to clarify, brief explanations will be provided where necessary.

Styles, is synonymous to both Cognitive Style, and Learning Style. Knowles et al. point out that "The terms learning style and cognitive style are often erroneously used interchangeably" (1998, p.161, original emphasis), describing learning style as a separate concept, broader than just cognitive functioning embracing general preferences for types of learning situations. Riding and Rayner (1998) define Cognitive Style as "an individual's preferred and habitual approach to organising and representing information" (p.15; Riding, 2002, p.22), as being the way a person thinks, and describe it as relatively fixed. They found over 30 different cognitive style constructs, from a variety of researchers apparently working in isolation. They then proceeded to classify them into two main cognitive style dimensions: the wholist-analytic and the verbal-imagery. Wholist-analytic style determines whether information is processed as a whole or in parts; the verbal-imager style dictates whether information is represented during verbal thought or via mental images. They concluded that cognitive style is unrelated to intelligence, personality or gender (Riding and Wigley, 1997; Riding, 2002). discuss learning strategy as processes used by the learner in response to a task, and can be both learned and developed. They refer to the use of the term *learning style* as being synonymous with *learning strategy*.

"Cognitive style refers to individual difference in information processing. It is concerned with the form rather than the content of activity and related to how people think, solve problems, learn and relate to others" (Hayes and Allinson, 1996).

They present Learning Style as a subset of Cognitive Style. They refer to the pioneering work of Witkin on cognitive/learning style field-dependence/ interdependence. Field-dependent individuals have difficulty in identifying relevant from irrelevant cues, such as judging vertically when seated on a tilted chair. Field-independent individuals are more able to distinguish the relevant details irrespective of the context. They also refer to the

work of Bruner et al. (1956) who found that people sometimes modify the strategies they use to suit the particular requirements of the external situation. They highlighted the difference between cognitive style and cognitive strategies.

Cognitive Strategies represent the sorts of conscious decisions made when tackling a cognitive task. Cognitive style is to produce consistent behaviours across a wide variety of situations, and could be described as consistent individual differences in preferred ways of organising and processing information. Sadler-Smith et al. (2000) also found that the relationship between cognitive style and preference did appear to be mediated by gender, and called for it to be further researched, suggesting that "style and gender exert a combined effect" (Sadler-Smith and Riding, 1999, p.367).

Sadler-Smith (1999) discusses Curry's 'onion' model, in which she represented the various styles into three main layers (Curry, 1991). The core represents the personality dimension or cognitive personality style; the next information processing style – measured by instruments such as Kolb's LSI (Murray-Harvey, 1994), and therefore it could be logically concluded that would also include the Honey and Mumford LSQ. The outer layer represents the behavioural aspects of interaction between the inner layers and the external environment, or "instructional-preference models of learning style" (Rayner and Riding, 1997, p.22). From this description it would therefore be expected that the Honey and Mumford model would also fit into the outer layer of Curry's model. Cassidy (2004) makes reference to an additional fourth layer to the onion model as being social interaction.

Sadler-Smith (1999) compares the onion model with Riding's (1997) cognitive control model. The Cognitive Control Model is based on Curry's model, and previous work undertaken by Riding. In contrast to Curry's three levels, it displays four levels: primary sources, cognitive control, cognitive input and output, and external world. Primary sources, the most basic level includes such influences as knowledge and cognitive history, together with personality and gender. Riding and Rayner fit learning strategies (learning styles) into the 3rd level of Cognitive output (Riding and Rayner, 1998, p.114), whereas Sadler-Smith and Riding (1999) link cognitive style to the instructional preference layer of Curry's model. Reporting on a study of business students they found a surprising general preference for dependent methods of learning, calling for a "longitudinal or comparative study of learning preferences" (p.363). This appears to be

in conflict to the findings of Riding and Watts (1997) who found children selected instructional material according to their cognitive style e.g. pictorial or otherwise. This clearly needs clarification, but it is not within the remit of this research to address. There does however emerge a 'blurring' of the demarcation between cognitive styles and learning styles, and an anomaly would appear to exist between these contrasting schools of thought. Hayes and Allinson (1996) and Riding, (1997) proffered cognitive style as the antecedent of learning style; but Sadler-Smith however disagreed, stating that learning style and cognitive style are independent, and that "cognitive style is not the synonymous predecessor of learning style" (2001, p.301).

Review of Arguments

It is difficult to disagree with Rayner and Riding who state "It is arguably useful to think in terms of cognitive style representing the core of an individual's learning style" (1997, p.23). They discuss the possibility that both motivational elements and the affective aspects of learning are reflected in learning styles. Presland (1994) cites Doyle and Rutherford finding positive effects on self esteem and motivation linked to learning style.

Links have been made between Learning Style, Cognitive Style and Personality (Messick, 1976; Furnham, 1992). Eysenck and Eysenck (1995) refer to the multitude of personality testing instruments, reflecting that all rely on observable behaviour as their measure, thereby allowing only certain aspects of personality to be measured. Jackson and Lawty-Jones (1996) support the view expressed by Furnham (1992, 1992a) that learning styles are a subset of personality, and do not need to be measured separately unless the learning style is of interest in its own right. As the question of personality type is raised in relation to learning styles these two themes will be explored within the literature as to their relevance to this research. Burbeck and Furnham (1984) concluded that it is not useful to rely on personality testing in police recruitment, a view which I support.

2.4 Learning Styles

The term 'Learning Style' has attracted much speculation as to its meaning within the sphere of management training and education. There are several different interpretations of the term. First it is important to commence by reviewing some of the debates and definitions relating to this theory.

Riding and Rayner (1998) in an attempt to clarify the multitude of terms relating to learning style outline their belief that learning styles fall into four groups. Learning processes, orientation to study, instructional preferences and cognitive skills. Both Kolb's and Honey and Mumford models fall into the *learning processes* group (p.78). They further argue that "strategies can be learned and modified while style is a relatively fixed core characteristic of an individual" (1998, p.79), and that those models of learning style that belong to a learning-centred approach are *learning strategies* rather than *learning styles*. This description would include both Kolb's and Honey and Mumford's models, which if their argument is to hold water would mean the concept of the 'strategic learner'. It would in all probability find support from both Kolb and Honey and Mumford who uphold the developmental elements of their models. Despite the confusion over the terminology, Schmeck (1988) argued for the retention of the term learning styles.

One of the most commonly used models to explain learning styles is Kolb's Experiential Learning Theory (ELT). It is based on the problem solving model of action research of Kurt Lewin. Kolb (1984) refers to Lewin's pioneering work which resulted in T-groups. It was found that by including students into the 'experience', more in depth learning took place. The Lewinian model of Action Research and Laboratory Training, related to a four stage experiential learning cycle. Kolb (1984) identified "Dewey, Lewin and Piaget ... as the foremost intellectual ancestors of experiential learning theory" (p.15).

Swailes and Senior (1999) argue that the concept of learning style theory, based on an experience which is later reflected upon is in contrast to Schön's theory of reflection in action. This interpretation is questionable: learning style theory relies upon progression around the experiential learning cycle, but does not necessarily mean that by taking a backward step you would be unable to proceed around the cycle. In my view it does not conflict with Schön's theory.

Multiple Intelligence Theory

Howard Gardner (1993) acknowledges some "overlap" (p.xxv) in dimensions to those considered under the heading of 'learning styles', pointing out aspects relating to his Multiple Intelligence Theory. He refers to his own definition of intelligence as being "the ability to solve problems ... that are valued within one or more cultural settings" (p. xiv). His definition encompasses not just the accepted meaning of the word as being something which can be tested by such measures as I.Q. tests, but also "knowledge of

the human brain and sensitivity to the diversity of human cultures" (p. xiii). The term 'multiple intelligence' suggests varied and different 'intelligences'. Initially seven core intelligences were identified: linguistic (word smart); logical-mathematical (number/reasoning smart); spatial (picture smart): body-kinaesthetic (body smart); musical (music smart): interpersonal (people smart); and intrapersonal (self smart). He later added naturalistic (nature smart) with notice of a possible existential intelligence (Gardner, 1993; Gardner, 2000). Geake (2008) challenges the originality of the multiple intelligence theory claiming that "Gardner has just recycled Plato" (p.126). Both advocate individual differences and the ability of learners to excel within an endless variety of combinations of 'intelligences'. Learning style theory has to cope with this variety. It provokes the question, if multiple intelligence are linked to life experience and early cognitive experience, should learning styles also do this? If this were to be so, individual learning style preferences should be considered as being used by individuals 'intelligently'.

Serialists and Holists

Serialists and Holists have substantial differences in approaches to problem solving. Serialists like to build arguments on the basis of accumulated data, and to see it as a step-by-step approach. Holists like to see the task as a whole, making interconnections between ideas and concepts (Kolb, 1984; Riding and Rayner, 1998; Reynolds, 1997; Coffield et al., 2004). The label was introduced by Pask and Scott (Pask, 1976); describing a learning strategy - it reflected a tendency to respond to learning tasks from either a hypothesis-led or focused strategy. Pask believed that to employ both approaches led to more meaningful learning (Pask, 1976; Rayner and Riding, 1997; Riding and Rayner, 1998).

2.5 Learning Style Instruments

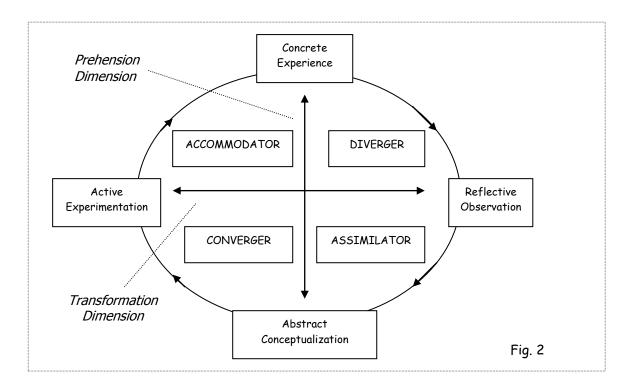
There are numerous learning style instruments, which vary in length, format and complexity. They "describe similar phenomena observed from different vantage points" (Hwang, 2005). Coffield et al. (2004) highlight the conceptual and empirical issues encountered within the field due to the large number of over 71 Learning Style instruments available. The study of each does not fall within the remit of this research. The better known instruments will be reviewed, concentrating primarily on David Kolb's Learning Style Inventory (LSI), and Honey and Mumford's Learning LSQ which have received the most attention within Police training and within the Management literature.

2.5.1 Experiential Learning Theory (ELT)

The experiential learning theory is one of the U.K.'s most influential models of learning style, developed by David Kolb in the 1970's (Coffield et al., 2004). Prior to discussing instruments used to assess Learning Style, the theory upon which both the Learning Styles Inventory and Honey and Mumford's LSQ are based must be explored. Experiential Learning Theory emanates from diverse educational and psychological theories, including Dewey's pragmatism, Lewin's social psychology, Piaget's cognitive-development, Rogers' client-centred therapy, Maslow's humanistic approach, and the Gestalt theory of Fritz Perls (Kolb, 1984). Kayes (2002) proffers the idea that "ELT proposes a comprehensive theory grounded in the humanist concept" (p.139).

Kolb (1981) refers to the theory of experiential learning as being the resolution of conflict between opposing modes of dealing with the world: between action and reflection, and concreteness and abstraction. Learning styles represent preferences for one style over another. He emphasises that they can vary in accordance with circumstance, warning against their use to pigeon hole or stereotype (p.290). This finds support by Hayes and Allinson (1996). They outline that empirical evidence for the proposition that learning style may be malleable is provided by Hadden and Lytton (1968). This makes any learning style instrument unsuitable for use in selection procedures.

Kolb's learning cycle (fig. 2) relates to four learning styles: Concrete Experience - *feeling* (CE); Reflective Observation - *watching* (RO); Abstract Conceptualization - *thinking* (AC) and Active Experimentation - *doing* (AE). Kolb proposes two preferred ways of learning: the first a preference for learning by thinking versus a preference for feeling. The second involves a preference for learning by doing as opposed a preference for observing. This is demonstrated by the use of 2 bipolar continuums: AC to CE on one and AE to RO on the other. The continuums range from Active–Reflective on the one, and Abstract- Concrete dimensions on the other. The first ranges from direct participation to detached observation, whilst the second ranges from dealing with tangible objects to dealing with theoretical concepts (Kolb, 1981; Allinson and Hayes, 1988). The classification of scores on the two continuums classifies individuals into one of the orthogonal (made up of a right angle) learning styles, reflecting the dominant orientation.



- Converger learning style relies on abstract conceptualization and active experimentation abilities. It is a problem solving, decision making style, preferring technical tasks.
- Diverger is the opposite of converger, preferring to learn through concrete experience and reflective observation. Their imagination is their greatest strength. The diverger tends to be more oriented towards feelings and people (Hunsaker, 1981).
- Assimilators dominant abilities are abstract conceptualization and reflective observation, greatest strength being their ability to utilize inductive reasoning, and ability to create theoretical models. Similarly to convergence they are less focused on people. Assimilators excel at the use of inductive reasoning to sort many perspectives into a theoretical model.
- Accommodator is the opposite of Assimilator. Strength being in concrete experience and active experimentation, in carrying out plans and tasks, becoming involved in new experiences, and can sometimes be seen as impatient.

- Prehension Dimension includes two dialectically, or opposing modes of grasping experience. One through direct concrete experience (CE), the other through indirect or abstract conceptualisation (AC).
- Transformation Dimension again includes two dialectically opposing modes of transforming experience. One through active experimentation (AE), the other through reflective observation (RO).

(Kolb, 1984)

2.5.2 Learning Styles Inventory (LSI) - David Kolb

The LSI has been translated into several languages (Coffield et al., 2004). Kolb's original LSI had nine self-reporting items. The questionnaire asked respondents to prioritize or 'rank order four words in a way that best describes his or her learning style' (Kolb, 1981, p.290). Hunsaker (1981) reported that the predictive validity of the original LSI had not been confirmed, and that the support from Plovnick (1975) had been found to contain serious failings. Plovnick's findings suggested that "students with different learning styles seemed to be influenced by different aspects of their environment in making career choices" (1975, p.852). This could include the influence of role models and actual work experience.

I personally found the Learning Styles Inventory questionnaire difficult to complete as some of the words were too similar to allow me to arrive at a decision between them. Hunsaker (1981) also referred to this confusion, attributing it to the instrument using four dependent scores to assess two independent dimensions. This results in two of the four words within each question being very similar.

The revised edition (1985, 1999) had twelve items aimed at improving reliability and construct validity. Metallidou and Platsidou (2008) found the construct validity to be "rather problematic" (p.117). Construct validity refers to the categories or types of measure being appropriate to the subject group and what is being measured (Cohen, Manion and Morrison, 2000). Participants are asked to rank order four sentence endings, which correspond to the four learning styles (Kayes, 2002). For example they would have a sentence commencing 'I learn best when' this is followed by four alternative endings to the sentence representing the four dimensions of Kolb's theory. A

total score is then calculated for each dimension (Cornwell and Manfredo, 1994). In reviewing empirical research of Willcoxson and Prosser (1996); Yahya (1998) challenged their treatment of the data finding the revised (1985) instrument to have high construct validity in addition to reliability, supporting the two bipolar dimensions. A bipolar system of measurement effectively makes it impossible for an individual to obtain a high score in both learning styles on the same continuum. Kolb's notion was that an individual ultimately learns to use each learning style, or combination of learning styles to facilitate the task of learning. These styles can change over time, as a result of personal growth and experience thereby becoming an integral part of ongoing development.

Garner (2000) discusses what he describes as the limitations of Kolb's learning style theory, referring to the difficulty in assessing its validity and reliability being as a result of poor theoretical foundations. He acknowledges the strong face validity of the LSI. He is dubious of Kolb's claim that his learning styles (personality types) are similar to the types of Jung, referring to Kolb's comparison of the Myers-Briggs Personality Type Inventory (MBTI) with his own LSI. He highlights what he refers to as confusion as to whether the LSI measures "learning styles as 'traits' (and so stable) or states (and so flexible)" (p.347). Kolb (1984) judges his learning styles to be stable yet influenced by the environment and life experiences.

Freedman and Stumpf (1980) also acknowledge the high face validity of the LSI, but they complain that the empirical evidence to support learning style theory originates from one piece of unpublished research. They go on to outline empirical evidence of the low reliability of the LSI. Kolb (1981) responded to this outlining a number of studies and research on the LSI, going on to state that "the inventory is only a starting point for understanding one's approach to learning" (p.290). It must however be recognised that this debate revolved around the original shorter version of the LSI. Kolb disputed the findings of Freedman and Stumpf which were based on research conducted using a modified version of the LSI using a Likert scale, thereby allowing the respondent to indicate the level to which they agree with a statement. He argued that it is theoretically unsound to base findings on a modified instrument.

Knowles et al. (1998) support Cornwell and Manfredo (1994) in disputing the findings of Freedman and Stumpf. They claimed that the constructs in Kolb's theory may be valid, but that they are not measured correctly by the LSI. In contrast, Allinson and Hayes

(1988) cite studies which call the face validity of the LSI into question, although arguing that the learning cycle theory would seem to be acceptable. They propose the Honey and Mumford Learning Styles Questionnaire (LSQ) as a "more promising alternative" (p.271). Jones, Reichard and Mokhtari (2003) conducted an empirical study of 105 college students using a modified version of Kolb's Learning Styles Inventory. They found significant differences in students' learning styles preferences across disciplines. This is important and can be linked to adapting strategies to working in specific job roles whereby persons adapt their learning style to suit the job. Brew (2002) found that for a cohort of female Australian students the LSI was gender sensitive, albeit the results for males were consistent with previous studies. Philbin, Meier, Huffman and Boverie (1995) conducted empirical research using the 1985 version of the LSI. They found a significant difference in learning style due to gender, finding that the learning style that least suits women is Assimilator. The issue of gender is not therefore satisfactorily resolved with respect to the LSI, but raises questions with regard to this issue for this research.

Concerns over the reliability and validity of the LSI have in the main revolved around the fact that the instrument uses an ipsative measure. A measure is ipsative if it allows a high score on one dimension resulting in a correspondingly low score on another creating a statistical limitation. However more recent work indicates this can be overcome by statistical procedures (Kayes, 2002). The bipolar structure of the LSI makes it ipsative. The LSI's bipolar structure found support from Loo (1999), albeit he did not support the claim of increased validity for the revised instrument. Duff (2001) in a study using the Learning Styles Questionnaire on accounting students disputed the existence of two bipolar style dimensions, as used in the LSI. Knowles et al. (1998, p.165) argue that just because the LSI has been criticized for validity issues does not mean that the underpinning theory is invalid.

A theme emerges from the literature reviewed relating the LSI. The consensus of opinion backs the underlying Experiential Learning Theory, but raises concerns over the LSI instrument itself. The main criticisms revolving around the bipolar nature of the instrument relate to the manner in which it forces the respondents to make a choice between two options. The Honey and Mumford Learning Styles Questionnaire is based upon Kolb's theory, which has gained widespread support, providing a theoretically sound basis from which to proceed.

2.5.3 Learning Styles Questionnaire (LSQ) - Honey and Mumford

"Honey and Mumford followed Kolb who followed Lewin in presenting the idea of learning as expressed through a four stage learning cycle" (Mumford, 1995, p.5). Honey and Mumford (1992) explain that their LSQ was mainly based on Kolb's Experiential Learning Theory (ELT), using the same stages of the cycle and similar learning styles. They identify the biggest difference as being the terminology used, and the LSQ instrument itself. When devising it they deliberately avoided using questions relating to how individuals learn, the approach which had been adopted by Kolb.

They based their LSQ on "what managers and professional people do" (p.5). They based it on behavioural tendencies instead of on how people learn in order to aid completion by managers. They reiterate that the similarities between the LSQ and Kolb's work are greater than the differences. Kolb's work can be traced back to its origins: Jungian psychological types (Kolb, 1984; Sadler-Smith, 1999). Whilst they concurred with Kolb's experiential learning theory, Honey and Mumford questioned the use of one word descriptors and decided to concentrate on observable behaviour (Allinson and Hayes, 1988).

Honey and Mumford also based their model on four learning styles which operated in a mutually exclusive manner. Mumford (1994) stated that the LSQ is quite different in form from the LSI, and that it starts in terms of explanation from a different position. The four styles identified by Honey and Mumford are Activist, Reflector, Theorist and Pragmatist. The following are Honey and Mumford's (1992) descriptors of each style (Fig. 3).

Activists involve themselves fully and without bias in new experiences. They enjoy the here and now and are happy to be dominated by immediate experiences. They are open-minded, not sceptical, and this tends to make them enthusiastic about anything new. Their philosophy is: 'I'll try anything once'. They tend to act first and consider the consequences afterwards. Their days are filled with activity. They tackle problems by brainstorming. As soon as the excitement from one activity has died down they are busy looking for the next. They tend to thrive on the challenge of new experiences but are bored with implementation and longer term consolidation. They are gregarious people constantly involving themselves with others but, in doing so, they seek to centre all activities around themselves.

Reflectors like to stand back to ponder experiences and observe them from many different perspectives. They collect data, both first hand and from others, and prefer to think about it thoroughly before coming to any conclusion. The thorough collection and analysis of data about experiences and events is what counts so they tend to postpone reaching definitive conclusions for as long as possible. Their philosophy is to be cautious. They are thoughtful people who like to consider all possible angles and implications before making a move. They prefer to take a back seat in meetings and discussions. They enjoy observing other people in action. They listen to others and get the drift of the discussion before making their own points. They tend to adopt a low profile and have a slightly distant, tolerant, unruffled air about them. When they act it is part of a wide picture which includes the past as well as the present and others' observations as well as their own.

Theorists adapt and integrate observations into complex but logically sound theories. They think problems through in a vertical, step-by-step logical way. They assimilate disparate facts into coherent theories. They tend to be perfectionists who won't rest easy until things are tidy and fit into a rational scheme. They like to analyze and synthesize. They are keen on basic assumptions, principles, theories, models and systems thinking. Their philosophy prizes rationality and logic. 'If it's logical it's good'. Questions they frequently ask are: 'Does it make sense?' 'How does this fit with that?' 'What are the basic assumptions?' They tend to be detached, analytical and dedicated to rational objectivity rather than anything subjective or ambiguous. Their approach to problems is consistently logical. This is their 'mental set' and they rigidly reject anything that doesn't fit with it. They prefer to maximize certainty and feel uncomfortable with subjective judgements, lateral thinking and anything flippant.

Pragmatists are keen on trying out ideas, theories and techniques to see if they work in practice. They positively search out new ideas and take the first opportunity to experiment with applications. They are the sort of people who return from management courses brimming with new ideas that they want to try out in practice. They like to get on with things and act quickly and confidently on ideas that attract them. They tend to be impatient with ruminating and open-ended discussions. They are essentially practical, down to earth people who like making practical decisions and solving problems. They respond to problems and opportunities 'as a challenge'. Their philosophy is: 'There is always a better way' and 'If it *works* it's good'.

Fig. 3

Kramlinger and Huberty (1990) link the Activist style with humanism and behaviourism, the Reflector style with humanism, the Theorist style with cognitivism and the Pragmatist style with behaviourism and humanism. My view however is that cognitivism links with both the Reflector and Theorist styles as they are more linked to the process of learning. Humanism clearly links to the Reflector style, but could also link to the Activist style considering the activity and experience approach advocated by Dewey (1998). Behaviourism has links to the Reflector learning style which collects information and data from others, but would appear to describe the Pragmatist learning style as being keen to take on ideas from others (see Fig. 4).

Learning Style and Educational Theory	
Honey & Mumford	Educational Theory
Learning Style	
Activist	Humanist
Reflector	Humanist – Cognitivism - Behaviourist
Theorist	Cognitivism
Pragmatist	Behaviourist - Humanist
	Fig. 4

Further links are proposed, some of which have already been outlined. Some further questions need to be posed. Whose theory is this based on, what influence has it had on the development of the instruments, and is any one theory dominant?

As previously discussed Kolb cited Dewey, Lewin and Piaget as the foremost ancestors of Experiential Learning Theory. If this is the case then it is worthy of considering the influence they had upon the theory which forms the basis of this research. Honey and Mumford four learning styles show clear links between Dewey's learning by doing and the Pragmatist learning style.

Activists could be described as 'hands on' learners, preferring to have a go – learning as they proceed. Reflectors prefer to be thoroughly briefed before proceeding. Donald Schön, although not mentioned by Kolb as a main contributor is widely acknowledged as one of the main theorists for his work on reflection (Schön, 1983). It would also have to be acknowledged that this stems from the work of Plato and links with the Humanist approach. Theorists have to be sure that the issue makes sense before proceeding. As

discussed earlier, Pask and Scott introduced the concept of Serialists and Holists, (Pask, 1976; Rayner and Riding, 1997; Riding and Rayner, 1998). Serialists being hypothesis led: suggesting that there are clear and unequivocal links to the Theorist learning style, whereas the Holist would link to the more pragmatic approach. Pragmatists prefer to see that something actually works in practice. As previously discussed Dewey is recognised as one of the fathers of pragmatism, and is acknowledged as a major influence by Kolb, and again links to the Humanist approach.

The original Learning Styles Questionnaire had 63 self-reporting items; this was later expanded to 80 items using a single forced response pattern. The revised version consisted of a four scale inventory, of a symmetrical design having 20 questions for each of the four learning styles. It also removed British colloquialisms to enable more widespread use (Mumford and Honey, 1992). The LSQ uses statements of observable behaviour rather than one-word descriptors as used in the LSI. Respondents are invited to agree or disagree with each statement. The statements below have been sorted into those that apply for each learning style, thereby allowing an overview of the statements relevant to each (Fig. 5):

Activist

- I often act without considering the possible consequences.
- I believe that formal procedures and policies restrict people.
- I often find that actions based on feelings are as sound as those based on careful thought and analysis.
- I actively seek out new experiences.
- I'm attracted more to novel, unusual ideas than to practical ones.
- I thrive on the challenge of tackling something new and different.
- I enjoy fun-loving spontaneous people.
- I tend to be open about how I'm feeling.
- I prefer to respond to events on a spontaneous, flexible basis rather than plan.
- Quiet, thoughtful people tend to make me feel uneasy.
- It is more important to enjoy the present moment than to think about the past or future.
- In discussions I usually produce lots of spontaneous ideas.
- More often than not, rules are there to be broken.
- On balance I talk more than I listen.
- I enjoy being the one that talks a lot.
- When things go wrong I am happy to shrug it off and "put it down to experience."
 - I find the formality of having specific objectives and plans stifling.
- I'm usually one of the people who puts life into the party.
- I quickly get bored with methodical, detailed work.
- I enjoy the drama and excitement of a crisis situation.

Fig. 5

Reflector

- I like the sort of work where I have time for thorough preparation and implementation.
- I take pride in doing a thorough job.
- I take care over the interpretation of data available to me and avoid jumping to conclusions.
- I pay meticulous attention to detail before coming to a conclusion.
- I like to reach a decision carefully after weighing up many alternatives .
- I am careful not to jump to conclusions too quickly.
- I prefer to have as many sources of information as possible- the more data to think over, the better.
- I listen to other people's point of view before putting my own forward.
- In discussions I enjoy watching the manoeuvrings of the other participants.
- It worries me if I have to rush out a piece of work to meet a tight deadline.
- I often get irritated by people who want to rush things.
- I think that decisions based on thorough analysis of all the information are sounder than those based on intuition.
- I prefer to stand back from a situation and consider all the perspectives.
- I tend to discuss specific things with people rather than engaging in social discussions.
- If I have a report to write, I tend to produce lots of drafts before settling on the final version.
- I like to ponder many alternatives before making up my mind.
- In discussions I'm more likely to adopt a "low profile" than to take the lead and do most of the talking.
- It's best to think carefully before taking action.
- On balance I do the listening rather than the talking.
- I am always interested to find out what people think.

Theorist

- I have strong beliefs about what is right and wrong, good and bad.
- I tend to solve problems using a step-by-step approach.
- I regularly question people about their basic assumptions.
- I am keen on self-discipline such as watching my diet, taking regular exercise, sticking to a fixed routine etc.
- I get on best with logical, analytical people and less well with spontaneous, "irrational" people.
- I don't like disorganised things and prefer to fit things into a coherent pattern.
- I like to relate my actions to a general principle.
- I tend to have distant, rather formal relationships with people at work.
- I find it difficult to produce ideas on impulse.
- Flippant people who don't take things seriously enough usually irritate me.
- I tend to be a perfectionist.
- I can often see inconsistencies and weaknesses in other peoples arguments.
- I believe that rational, logical thinking should win the day.
- I am keen to reach answers via a logical approach.
- In discussions with people I often find I am the most dispassionate and objective.
- I like to be able to relate current actions to a longer term bigger picture.
- I tend to be tough on people who find it difficult to adopt a logical approach.
- I am keen on exploring the basic assumptions, principles and theories underpinning things and events.
- I like meetings to be run on methodical lines, sticking to laid down agenda, etc.
- I steer clear of subjective or ambiguous topics.

Pragmatist

- I have a reputation for saying what I think, simply and directly.
- What matters most is whether something works in practice.
- When I hear a new idea or approach I immediately start working out how to apply it in practice.
- I accept and stick to laid down procedures and policies so long as I regard them as an efficient way of getting the job done.
- In discussions I like to get straight to the point.
- I believe in coming to the point immediately.
- I tend to be attracted to techniques such as network analysis, flow charts, branching programmes, contingency planning etc.
- I tend to judge people's ideas on their practical merits.
- In meetings I put forward practical realistic ideas.
- I can often see better, more practical ways to get things done.
- I think written reports should be short and to the point.
- I like people who approach things realistically rather than theoretically.
- In discussions I get impatient with irrelevancies and digressions.
- I am keen to try things out to see if they work in practice.
- In discussions I often find I am the realist, keeping people to the point and avoiding wild speculations.
- I tend to reject wild, spontaneous ideas as being impractical.
- Most times I believe the end justifies the means.
- I don't mind hurting people's feelings so long as the job gets done.
- I do whatever is expedient to get the job done.
- People often find me insensitive to their feelings.

Fig. 5

The items are scored dichotomously (agree/disagree) by awarding a point for every item which is agreed, and no points for items that are disagreed with. As in the case of the LSI this can prove problematic for someone to choose between responses. They may feel that they only partially agree with a statement.

The maximum score for each style is 20 (Sadler-Smith, 2001a). The LSQ was initially administered to 1,302 people in UK industry. Norms were produced from the scores, the top 10% - very strong preference; next 20% strong preference; middle 40% moderate preference; next 20% low preference; bottom 10% very low preference (Honey and Mumford, 1992; Rae, 1986).

I would concur with Swailes and Senior (1999) that the four learning styles used by Honey and Mumford would seem to directly link to the four learning styles of Kolb: Activist = Concrete Experience (CE); Reflector = Reflective Observation (RO); Theorist = Abstract Conceptualization; Pragmatist = Active Experimentation (AE) (Tepper et al., 1993). Goldstein and Bokoros (1992) reported a moderate but significant correlation between the original and revised LSI (1976 and 1985 versions) and the LSQ. They

concluded that "the three scales do classify individuals into equivalent learning style categories" (p.707). Sims, Veres and Shake (1989) also conducted empirical research looking for convergence between the LSI and the LSQ II. They did not find significant convergence between the two instruments. It is however unclear whether they used the original LSQ or the revised 1986 version.

Allinson and Hayes (1988, 1990) postulate that the LSQ is preferable to the LSI in that it accurately identifies two related dimensions of cognitive style: analysis and action. They do not however support the LSQ to be accepted without critical assessment. Duff (1997) conducted empirical research into the LSQ and found inter-correlations between the four LSQ scales. Activist was found to be significantly negatively correlated with Reflector, and Theorist was found to be significantly positively correlated with Pragmatist and Reflector. This was supported by Allinson and Hayes (1988, 1990) who also found Activist to be significantly negatively correlated with Reflector. He did not find evidence to support the construct validity of the LSQ.

Caple and Martin (1994) dispute the definition of an experience as outlined by Honey and Mumford, stating that Kolb's description is clearer. Mumford (1994) concurs with this view, further outlining the meaning of an experience as encompassing a broad range including activities such as reading.

Caple and Martin (1994) also query the meaning of the term learning style stating that Honey and Mumford have not made it clear. They go on to say that they "observe that their means of identifying individual styles may be flawed" (p.20). Mumford (1994) responded to these observations by pointing out that Caple and Martin appeared to be using the 1st edition of the Manual of Learning Styles, and not the revised LSQ published in 1986. Mumford (1994) goes on to dispute their interpretation of the LSQ being attributable to personality rather than behavioural tendencies. Rae (1986) went further in proposing that the LSQ is not only a measure of Learning Style, but can "also be used as an indicator of life styles" (p.11). Curry (1991) categorised the LSQ as being within the information processing cadre.

Reliability of the Learning Styles Questionnaire

Allinson and Hayes (1990) proffered the argument that the reliability of the LSQ was "a little better than that of the Learning Style Inventory" (p.860). Von Zwanenberg,

Wilkinson and Anderson (2000) concluded from their study of 182 management students that the LSQ failed to display a significant correlation between learning style and achievement, albeit they did find a correlation between Activist and failing student modules. "The Learning Style Questionnaire appears to be a more robust instrument with higher internal reliability" (p.379) than the Index of Learning Styles (ILS) developed by Solomon and Felder. They go on to state that the LSQ had been found to have insufficient reliability. Duff (2001) in a review of previous psychometric evidence of the LSQ, reported a finding of 'moderate to satisfactory' internal consistency reliability. This was supported empirically by a finding of 'moderate' using a sample of 127 undergraduate accounting students. Honey and Mumford (2000) have provided some data of the test-retest reliability of the LSQ based on a study of 50 people within a two week interval.

Validity of the Learning Styles Questionnaire

Mumford (1994) refers to having found "a very high validity in the sense that participants ... accept the results of the LSQ" (p.22). Rae (1986) supports the view that the LSQ does indeed have face validity based on empirical evidence of his own smaller sample. Endorsing the view that even if the results are initially disputed they are invariably accepted once the subject has sought feedback from others. This is attributed to the fact that the LSQ measures attitudes and behaviour. This is also supported by Allinson and Hayes (1988), who found it to have better face validity than the Learning Styles Indicator.

Mumford and Honey (1992) justify their approach explaining that to ask a person to explain how they learn holds its own problems. Rather the questions in the LSQ requires them to consider more "indirectly indicative of their preferred learning style" (p.11), arguing this provides greater face validity. Allinson and Hayes (1988) postulate the most important measure of any learning style is its ability to predict educational attainment, albeit they believe it would be unwise to discount the predictive validity of the LSQ. Price (2004) also cautions against the use of the LSQ "as a measure of preference for instruction and as a predictor of academic performance" (p.695). This argument assumes that it would be used in an academic context, which is not the purpose for which the LSQ will be used in this current study.

A later study by Allinson and Hayes (1990) of MBA students found limited evidence of validity, albeit construct validity was suggested from the results of industrial managers' scores. They also found "no significant differences between the scores of male and female subjects" (p.863). Using a group of 21 students no difference was found between those who expressed a preference for either lectures or simulation, thus refuting the hypothesis that students preferring lectures would score higher than their colleagues on the Analysis dimension. They do however acknowledge the limitations of this study which "may have moderated the hypothesized relationship between learning style and preferred teaching method" (p.865). They go on to suggest the relationship between more general cognitive ability and career potential. This went some way to support their earlier findings (1988) where they had summed the Theorist and Pragmatist scores as an Analysis dimension, and the Activist and Reflector score for the Action dimension, finding some evidence of construct validity. This would appear to contradict their earlier assessment of the most important measure of any learning style being its ability to predict educational attainment (1988).

Swailes and Senior (1999) also aimed to examine the construct validity of the LSQ in an empirical study. They concluded that it did not discriminate sufficiently between the Theorist and Reflector styles.

They argued that the structure of the LSQ with four styles fits well with the learning cycle, as opposed to mutually exclusive polar categories (e.g. the LSI). They also went on to conclude that if the underpinning learning cycle is valid, that the LSQ as an instrument does not capture it, and called for rationalization to enable it to capture a three, rather than a four-stage learning cycle. Tepper et al. (1993) also questioned the validity of the Reflector scale, calling for further refinement of the LSQ. Sadler-Smith (2001a) responded: he disputed their findings regarding a three-stage model, providing evidence supporting the four-stage model posited by Honey and Mumford.

Fung, Ho and Kwan (1993) conducted research using students at Hong Kong Polytechnic. They used a shortened version of the LSQ, with 40 rather than 80 self reporting questions on a Likert scale. They found significant but weak correlation for each of the four learning styles: Activist = concrete experience; Reflector = reflective learning; Theorist = abstract conceptual learning; Pragmatist = preferences for practice and application, providing support for the predictive validity of the LSQ. Albeit, its

construct validity was not established. This is in conflict with the findings of Swailes and Senior (1999). Both Sadler-Smith (1997) and Swannell (1992) found a correlation between the Theorist learning style and student performance, although Swannell (1992) found no relationship between the four learning styles, supporting the premise that each style measures an independent characteristic of the learner. No evidence of the predictive validity of the LSQ was found by Allinson and Hayes (1990), or Kappe, Boekhold, Rooyen and Van der Flier (2009). Sims et al. (1989) concluded that the construct of learning styles is safe, but further work is necessary to assess the way it is operationalized.

Brain Dominance

Mumford and Honey (1992) refer to the work on brain dominance which tends to the view that there are two types of style: right brain or cerebral hemisphere function (intuitive, spontaneous and qualitative) which they relate to the Activist and Pragmatist style, and left brain (factual, analytical and quantitative) to the Theorist and Reflector. They also draw attention to the fact that the distinction between upper and lower brain function also point towards four rather than two styles. Left brain style is characterised by information processing in an analytic way, whereas right brain style is characterised by information processing in a direct or synthesist way. This has been linked to *thinking style theory*, albeit that there would not appear to be any empirical evidence to link the division of the hemispheres of the brain and neural activity to thinking styles (Cano-Garcia and Hughes, 2000). There is no evidence to suggest how the two hemispheres work in unison.

Continuing along the right brain, left brain debate, Eysenck and Eysenck (1995) refer to empirical evidence of the ability of each hemisphere to operate independently of the other. The right side of the brain showed more electrical activity known as evoked potentials when dealing with a psychomotor task, whereas the left side showed more activity when dealing with a verbal task. The commonly held assumption that women are better at verbal tasks and men at physical tasks is to some extent endorsed by Eysenck and Eysenck (1995). If this is the case, it should be expected that more of the female respondents are likely to show the learning styles of Theorist or Reflector if the argument of Honey and Mumford (1992) is to hold water.

The literature reviewed tends to support the Honey and Mumford theory of four mutually independent learning styles, albeit the concerns regarding its reliability and validity abound. Coffield et al. (2004) concluded that there would have to be a revision of the LSQ to counter the criticisms made of it, although highlighting its value for use in a workplace setting.

Recently some of the assumptions regarding the functionality of the hemispheres of the brain have been called into question. Howard-Jones (2007) urges caution about attributing any one part of the brain to individual functions. He draws attention to the early stages of brain research using functional Magnetic Resonance Imaging, (fMRI a type of specialized MRI scan) which is ongoing with neuroscientists and educationalists.

Geake (2008) also cautions against the popular literature linking the left and right hemispheres of the brain to explicit learning style or function as being what he describes as "the most troubling of several neuromyths" (p.128). He emphasizes the importance of not rushing to assumptions or conclusions, pointing out that the original sample used in the research were all right-handed which would most certainly have influenced the results of which side of the brain was utilized for different tasks.

This calls into question much of the literature which links the left and right brain to specific learning styles, so will not be considered further within this study.

2.5.4 Study Process Questionnaire (SPQ)

Biggs expanded on the work of Entwistle by discovering three second-order motivational factors to develop new measure of learning strategy. He was interested in interaction between motivation and cognitive processes. He labelled it 'Intrinsic, Extrinsic, and Achievement Orientation'. Originally the SPQ was a 42 item, self-report questionnaire utilizing a Likert Scale. It aims to identify students' motivation and strategy towards study. Riding and Rayner (1998) cite studies which both support and criticise the validity and reliability of the instrument. It was later reduced to 20 items (Cassidy, 2004).

2.5.5 Myers - Briggs Type Inventory (MBTI)

The MBTI first published in 1962 was designed by Katherine Cook Briggs and her daughter Isabel Briggs Myers. It was developed from the ideas of Swiss psychiatrist Carl G. Jung using eight mental functions, and is one of the most widely used instruments to

understand personality differences being available in over thirty languages. It measures where energy is drawn from, how information is absorbed, how decisions are made, and how an individual deals with the outer world (Myers, 1998). It is a measure of Jungian types albeit that they use "Americanised definitions that do differ from Jung's own" (Garner, 2000, p.342). It is also a personality measure designed to measure a specific theory of psychological types, rather than to measure learning style, and is widely used for counselling and research, self understanding, conflict management and team building. It is designed to be used by a qualified practitioner with participants (Kolb, 1981; Myers, 1998; Cano-Garcia and Hughes, 2000; Myers, McCaulley, Quenk and Hammer, 2003; Coffield et al., 2004). Schmeck, Geisler-Brenstein and Cery (1991) concluded that "it seems clear that an individual's personality is inextricable linked with that person's learning style" (p.360). Various versions of the instrument are available consisting of between 50 and 126 items (Coffield et al., 2004). Allinson and Hayes (1988) and De Vita (2001) cite Sugarman's argument that the MBTI is too long and complex for use in situations where learning styles are of concern.

2.5.6 Inventory of Learning Processes (ILP)

Schmeck's Inventory of Learning Processes (ILP) was originally a 62 item inventory. Its four categories relate to 'Deep Processing', Elaborative Processing, Fact Retention, and Methodic Study (Duff, 1997). Duff discusses ambiguities in predictive validity, and describes its construct validity as "questionable" (p.270). Riding and Rayner (1998) however cite Curry as reporting strong reliability and validity. The ILP-R has however come under heavy criticism (Cassidy, 2004).

The ILP was later revised to the ILP-R in 1991 and became a 160 item questionnaire relating to school behaviour, motivation, attitude and opinions, using a six point Likert scale. It was intended for use with students, and for use in learning research (Schmeck et al., 1991). This instrument would not have been suitable for use in this research due to its length, the time required to complete, and because it was designed for use in schools rather than a work place setting.

2.5.7 Index of Learning Styles (ILS)

Developed by Solomon and Felder specifically for use with engineering students the Index of Learning Styles consists of 44 two-part items, equating to 11 items for each of its four scales. In a study of 284 students it was found to have low internal reliability

(Van Zwanenberg et al., 2000). This instrument was designed specifically for use with students it was not deemed an appropriate instrument for use with police officers in this research.

2.5.8 Approaches and Study Skills Inventory for Students (ASSIST)

ASSIST is a 38 item inventory which was developed by Entwistle and Tait (1996). It aims to identify students with weak study strategies. It measures academic self-confidence, and approaches to study. The four approaches are deep, surface, strategic and apathetic. It uses a five point Likert scale (Cassidy and Eachus, 2000). This model seeks to examine the links between motivation, study methods and academic performance (Coffield et al., 2004). As this research does not involve these areas it was also deemed as not suitable for use in this study.

2.5.9 Cognitive Style Index (CSI) – Allinson and Hayes

The Cognitive Style Index is a 38 item self report questionnaire. The CSI was found to be the most robust of the thirteen Learning Styles instruments evaluated by Coffield et al. (2004), with the best evidence of validity and reliability (Stringer, 2005). However this instrument was not included in the early stages of this research when deciding on which instrument was to be used.

2.5.10 Other Instruments

As discussed by Curry (1991) the majority of learning style research and literature describes students between the ages of six and eighteen years, which is inappropriate for this study. There are other instruments specifically designed to measure cognitive style, rather than Learning Style, for example the computer presented Cognitive Styles Analysis (Riding, 2002). It would be impracticable to use an instrument which required computer access.

2.6 Change of Learning Style

Allinson and Hayes (1988) posited the idea that "people in different occupations would develop different learning styles as a result of differences in tasks to be learned" (p.276). This was partially supported in their study where industrial managers recorded higher Action scores than did civil servants. Curry (1991) also found "significant learning style differences" (p.267) between medical practitioners in teaching roles, or those practising within the community. Kolb (1981) too called for further research on the effect of

"situational variability in response to environmental demands" (p.295), reflecting on the influence of outside forces on learning style preferences. Honey (1998) espouses that "There is no one right way to learn since a match is needed between diverse opportunities and learning style preferences" (p.7). This echoes Kolb's (1981) assertion that learning style can vary due to circumstance, which is supported by Marriott (2002) using the LSI in her longitudinal study of accounting students showing a change in learning style during their time at University.

Mumford and Honey (1992) expand on this stating their belief that learning styles are "modifiable either at will or by a change of circumstances." (p.11), and go on to expound the effect of occupational working environment on individual learning style. This is supported by Smith (2002) who reports on a study of 51 university students. The majority of the students were found to have moderate to strong preference for Activist learning style. This was "more marked among the students who had followed a vocational than an academic curriculum prior to university entry" (p.67). Terrell (2002) used the LSI to conduct an empirical study of doctoral students. It was found that students were able to adapt their personal learning styles in order to succeed in a webbased learning environment.

2.7 Gender and Age

Duff (1997) in a study of financial management students found that there was no statistically significant difference on either the Learning Styles Questionnaire or Schmeck's Inventory of Learning Processes (ILP) due to gender. In a study of 233 business and management undergraduates Sadler-Smith (2001a) found that gender did have an effect upon the Reflector and Pragmatist scales. Males had higher Pragmatist scores, while females were more Reflective. A low but significant correlation between age and the Theorist scale was also found. Curry (1991) using nine different learning style instruments (including the LSI but not the LSQ) did find "observable differences in learning style by gender" (p.271).

Purpose

"The possibility is that individuals with different learning styles will bring out different responses, perceive different opportunities, use opportunities for learning differently." (Mumford, 1995, p.6).

"Learning style could become a key variable in any conceptual framework for the design of employee training" (Hayes and Allinson, 1996, p.71). Sims et al. (1989) expounds the view that "learning style is a valid psychological construct, and useful in explaining a variety of phenomenon" (p.228).

"There can be little question that the research support for learning styles is mixed at best. One key reason is that there is no unifying theory or generally accepted approach to learning style research and practice". (Knowles et al., 1998, p.164).

As a result of this review of the literature the rationale for the choice of the LSQ for this study is discussed later.

2.8 Personality and Learning

In discussing the role of policing it is important to remember that the police service is also an organization. As such the same issues and concerns that are raised within any organization apply. When examining the topic of career choice and progression the influence of organisational behaviour, although not central to this research must be touched upon.

As discussed earlier (see section 2.2.1) if learning styles are indeed a sub-set of personality (Furnham, 1992; Furnham, 1992a; Jackson and Lawty-Jones, 1996) then the relevance of some literature on personality at work becomes relevant to this research. Furnham (1992a) laments the absence of collaboration between the literature on personality and organisational psychology/organisational behaviour, and the lack of literature on personality at work (p.2). He refers to the concept of 'fit' and 'misfit' at work, whereby some jobs are seen to be more suitable for some than others (see his Chapter 3, describing it as a promising area of research).

In discussing personality in an organisational setting, Furnham (1992a) argued that extroverts are more likely than introverts to choose occupations that involve social contact. He cites Eysenck and Eysenck's work of 1975 where they argue that preferences for different occupations can also be linked to personality, a view also supported by Myers (1998). Eysenck argued that personality is an "inherited, genetic endowment" a psychological stance (Buchanan and Huczynski, 1985) which will not be addressed here. Furnham (1992a) goes on to posit that a person's job environment can

affect aspects of personality, which could therefore also influence their preferred Learning Style(s).

Extraversion however is only one of the 'big five' personality categories which have been identified as a conceptual organising framework relating to personality traits. It is not supported by theory, but has been generally agreed upon within the field. The big five categories are: Openness to Experience (imaginative, experimenting, inquiring intellect, independent minded), Conscientiousness (orderly, responsible, dependable), Extraversion (talkative, assertive, energetic), Agreeableness (good-natured, cooperative, trustful), and Neuroticism/stability (calm, not neurotic, not easily upset) (John and Srivastava, 1999).

It could be argued that a negative personality type, one which is closed to experience, neurotic, disagreeable, introverted and not conscientious would have difficulty in identifying a particular learning style preference, as they would have no tendency towards learning. The opposite, someone who is open to experience, stable, agreeable, extroverted (to some degree) and conscientious would be ready learners. It would be expected that someone falling into those personality categories would also find that they would relate to some degree to the four learning styles identified by Honey and Mumford (1992). There would appear to be some similarities, for example: Openness to experience – activist /pragmatist; Conscientious – reflector /theorist; Stable – theorist; Extroverted – Activist. Ideally someone is well balanced across the five personality categories, and is also well balanced across the four learning styles.

A further variation on this viewpoint viewed from within the context of personality and learning styles. Eysenck and Eysenck (1995) cite large scale experiments conducted into the influence of family and genetics on personality. They concluded that

"the environmental factors which contribute to personality development are not connected with the family, the type of upbringing we receive, or any of the other environmental conditions determined by the family!" (p.209).

This is of course to some extent contradictory to the socialisation model discussed earlier relating to feminine patterns of behaviour (Rees, 1992; Crompton, Gallie and Purcell, 1996). If, as previously discussed learning style is a subset of personality, and

personality is not determined by family upbringing then learning styles should develop independently of family socialisation, rather than being malleable. Eysenck and Eysenck (1995) also point out that extroversion and introversion are linked to levels of arousal. Could this mean that officers dealing with potentially violent situations on a regular basis are more likely to notice a change in their own preferred learning style?

It is not the intention of this research to investigate personality rather than learning styles, and is referred to only to provide a context from which to proceed. Having reviewed the literature in relation to learning styles in this chapter, the next chapter will review the literature relating to women within the police service.

CHAPTER THREE

Review of Literature: Police Culture and Women Officers

3.0

Women Police Officers career aspirations and realities take place within organisational constraints, the literature concerning which is reviewed here. Evidence will be presented from the literature highlighting the historical extent of gender inequality within the service. It will examine drivers for change, and the effectiveness of policy and legislation. Learning styles have been shown to be malleable, affected by confidence, and can develop as a result of external influences such as exposure to life's experiences. Research suggests that the confidence of women police officers is often undermined, and their experience restricted. Organisations develop over time cultures of operating and relating which new recruits have to internalise. Handy (1985, p.142) comments:

"Strong organizations tend to have strong cultures which dominate and permeate the structure and the systems. To work in them you have to join them, psychologically as well as physically."

Research about changing organisational cultures suggests that this is difficult, and police culture is no exception (Young, 1991; Chan, 1997). This chapter examines some of the current issues relating to female police officers' in today's modern police service. It highlights the slow progress of females within the service and in achieving the highest rank. It explores the documented masculine organisational culture in which police officers currently work, which still debates the suitability of the feminine physique to the role of a police officer. It examines the literature relating to the deployment, career aspirations, choices and motivation of females, and how this links to officers' development having the potential to influence learning styles. It focuses on issues relating to career aspirations and deployment which are two of the objectives of this research.

3.1 Police Organisational Culture

Organisational culture exerts considerable influence within any institution or profession. The police have a well-documented culture that expands across geographical boundaries

and indeed to some degree across international boundaries (Holdaway, 1983; Young, 1991; Reiner, 1992; Anderson et al., 1993; Waddington, 1999; Westmarland, 2001; Silvestri, 2003; Rabe-Hemp, 2008), and has been described as "impenetrable (sic)" (Noaks and Wincup, 2004, p.108) to outsiders.

The strength of the police culture influences those within it, and attitudes can be formed by the values of the society or culture in which we find ourselves. Organisational culture may also influence attitudes, values and norms. A value is "a persons belief about what is good or desirable in life (sic)" (Arnold, Silvester, Patterson, Robertson, Cooper, and Burnes, 2005, p.242). Furnham (1992a) explains how values influence moral judgements:

"A value is considered an enduring belief that a specific instrumental model of conduct and/or a terminal end state of existence is preferable. It is argued that once a value is internalized, it consciously or unconsciously becomes: a standard criterion for guiding action ... for morally judging self and others; and for comparing oneself with others." (p.142)

If action is guided by the values of an organization, it is to be expected that it may also have an influence on learning style since an individual's learning styles can change due to external influences.

Organisational culture may affect attitudes and values of the individuals within it. Reiner (1992) graphically describes the police culture:

"Cop culture has developed as a patterned set of understandings which help to cope with and adjust to the pressures and tensions which confront the police. Successive generations are socialised into it, but not as passive or manipulated learners. The culture survives because of its 'elective affinity', its psychological fit, with the demands of the rank-and-file cop condition." (p.109)

From personal experience as a police officer I would endorse this statement. Police culture is the network of values that officers consider to be important. Neyroud and Beckley (1981) refer to elements of the masculine policing culture as including a sense of mission, solidarity and loyalty to colleagues. Burbeck and Furnham (1985) cite Teahan's 1975 findings of the general change in the values of police officers over time from affective to cognitive, but they doubted whether a "distinct police personality" (p.68)

exists. Prince (1993) conducted empirical research within three police forces using the Myers-Briggs Personality Type Indicator (MBTI) and presents evidence to support a "policewoman personality" (p.122) which she summarises as a "desire for facts, objectivity and order" (p.114) but which is distinct from male counterparts. These attributes could clearly link to one's learning style. This is however separate and distinct from female 'cop culture' of which Heidensohn (1992) found no evidence, her sample consisting of 50 female officers from both Britain and the United States (Heidensohn, 1998a). Acceptance into the masculine police culture can be difficult and stressful for female officers. Rabe-Hemp (2008) found that typically females who achieved success did so in one of three ways: "achieving rank, through completing some tough, manful act, or through being different or unique to the typical male police role" (p.264).

The assumption of a changing, rather than static police culture is supported by Chan (1997), although she highlights the propensity within the police literature to group together indiscriminately various values, beliefs and attitudes as representing police culture. She argues for a broader model including axiomatic knowledge (policy), combined with social influences and learned behaviours (Chan, 1996). This model of police culture could therefore be potentially influenced by officers learning styles.

Dick and Jankowicz (2001) found no difference in values between male and female constables, concluding that the only significant difference was to be found due to rank. I would posit that this supports the view that values relate more to the organisational culture than to gender. This view is also supported by empirical evidence from Holdaway and Parker (1998) who found that female officers displayed a strong commitment to organizational values, and Heidensohn (1992) who also found females showing allegiance to police values and culture. Waddington (1999) argues that the police 'canteen culture' does not predict the behaviour of officers when exercising their legislative powers in the public domain. This may indeed be the case, but it is posited that it can influence the working experiences of officers and how they view their place within the organisation.

The HMIC (1996) thematic report refers to the dominant group within the police service as being white males. The Morris Inquiry (Morris, Burden and Weekes, 2004) into the Metropolitan Police concluded that "issues of gender have been somewhat neglected"

(5.28) when considered in relation to other areas such as race, a view to which I would subscribe.

3.1.2 Masculine Culture

Several authors refer to the cult of masculinity within the police (Coffey, Brown and Savage, 1992; Fielding and Fielding, 1992; Reiner, 1992; Waddington, 1999; Beck, 2002; Silvestri, 2003; Brown, 2005; Silvestri and Crowther-Dowey, 2008). Silvestri (2003) sums this up:

"[that] the nature and substance of police work and identity are characterised by a cult of masculinity remains uncontested within the police literature" (p.27).

Silvestri (2005; 2007) refers to 'smart macho' police managers who are valued for their commitment and ability to put in the time for early breakfast meetings and the long hours demanded to prove commitment to the service. Brown (2007; 2007a) also refers to the 'smart macho' which has emerged where a new breed of manager is driven by performance indicators. Weekly 'Compstat' meetings hold managers accountable, creating a "competitive masculinity" (Brown, 2007, p.209). Young (1991), an ex-Police Superintendent describes the police service as:

"...a primarily masculine domain where metaphors of hunting and warfare predominate. Categories of prestige, power, and status are allocated to tough, manful acts of crime-fighting and thief-taking" (p.191)

These hegemony of male attitudes in the police culture put females within the organisation at a disadvantage, and they may feel under pressure to conform to a masculine approach.

Westmarland (2001) refers to the personal and professional status of police officers as being determined by the necessity of "showing bottle" (p.1) as part of the culture. This would appear to be at odds with the findings of Rabe-Hemp (2008a) who found female officers were less likely to change their behaviour towards the public when other officers were present, than were their male counterparts. Daum and Johns (1994) suggest that there is a considerable challenge facing women attempting to be socialised into the organisation. Heidensohn (1998) argued that females need tenacity to continue within their role. The literature agrees that females need to be adaptable to fit in. This very

adaptability would help female officers adapt their preferred learning styles to suit their role. The well documented culture taken together with the debate regarding the physicality of the role provides further hurdles for females to overcome.

3.2 Physicality of the role from a Historical Perspective

Traditionally police work has always been perceived as being physically demanding. It is therefore important to examine how vital physical strength is to effectively carry out the role of a police officer. The office of Constable confers considerable legislative powers, including the power of arrest. Since the inception of women within policing, debates have abounded about the physical suitability and desirability of women for this task (Rabe-Hemp, 2008). Women are seen as less capable of dealing with the more physically strenuous or dangerous aspects of policing, which could deter females from joining the service. Arguments continue regarding the necessity of physical strength in policing, and whether the passage of time has impacted on this as a perceived essential requirement for the role. Rogers, Brocklebank and Martin (2009) argue that only a small part of police work require physical strength and that lack of physical strength "cannot be the main reason for the lack of female progression" (p.11).

Holdaway (1983) referred to a sustaining of the perception of danger being ever present during police work as part of the culture. Coffey, Brown and Savage (1992) cite the Audit Commission of 1990 as evidence of the diverse nature of police duties which does not reflect this perception, and challenge the assumption that an officer must display physical strength to be an effective 'street officer'. This is supported by empirical evidence, which is discussed later (Heidensohn, 1994; Chan, Devery and Doran, 2003). Fielding and Fielding (1992) also concluded that "incidents involving physical force are rare" (p.213), and that the necessity to use any kind of brute force is also rare (Fielding, 1999). This is supported by Westmarland (2001) who refers to data showing women achieving the same level of arrests as men. Santos, Leather, Dunn and Zarola, (2009) found that the level of violence experienced by male and female officers were comparable.

The Home Office was not able to supply any data regarding the number of calls attended by police officers which involved dealing with violence; nor are there locally kept records in the case-study force. From personal experience in that force the overall number of such incidents are small, albeit the potential to experience violence is higher. Some such incidents can be averted by skilful handling of the situation by experienced officers. Schuck and Rabe-Hemp (2005) suggest that women officers in the U.S.A. use less force than their male counterparts; and Rabe-Hemp and Shuck (2007) found that violence is no more likely to be used against female officers than their male colleagues. Contrary to public perception, only a small part of the duties of a police officer actually require the use of physical strength. As physical strength would not appear to be a prerequisite, it is possible to consider other attributes such as learning styles being important to officers' progression.

3.3 Suitability of Females as Police Officers

The issue of the necessity for the use of force was to play an important part in the argument not to employ females as police officers. In the early days it was entirely at the discretion of individual Local Authorities as to the sanctioning of using women to perform police duties. An ongoing argument as to the appropriateness of conferring powers of arrest revolved around the reluctance to acknowledge that women may have to use force to perform their duties. The belief that women police should not be exposed to physical danger was expressed in the national press several times in 1927, albeit their supporters presented evidence to show women were able to successfully arrest both men and women (Carrier, 1988).

The view of the public also would seem to indicate a perception of female police using the softer skills rather than utilizing their statutory powers. Walklate (1992) reported on references written by members of the public in support of persons applying for appointment as Police Officers. She found that suppliers of references used phrases such as 'good moral values, dedicated and reliable' (p.228), but these qualities were only attributed to female applicants. This would tend to indicate that those persons supplying references saw those attributes as particularly relevant to females, supporting to some degree the observations of Coffey et al. (1992) who cited ACPO (1990) police policy documents (the strategic policy document setting the standards for policing meeting the community expectation – Metropolitan Police) highlighting the need for officers to be compassionate, courteous and patient. They go on to say that these qualities are particularly attributable to female police officers, but this observation is not qualified. Images portrayed as cartoons of policewomen (Brown and Heidensohn, 2000), describe this view of female officers as typical of the patriarchal approach of the service itself towards women.

3.4 Career Aspirations

Jones (1986) refers to the practice in the force she researched, of selecting women for appointment as police officers who showed a commitment to the service as a "life career" (p.82). I joined the police service in 1978, and was aware of this practice, and had been cautioned that women who were married or engaged to be married were unlikely to be appointed, despite the introduction of the Sex Discrimination Act (1975) which would make this unlawful. I was closely questioned by the all male interview panel as to my 'single' status. Coffey et al. (1992) conducted an empirical study on the career aspirations of female police officers using a large non-metropolitan force. They concluded that females aspire to specialist duties but are inhibited from applying, or they believe they would be thwarted in their attempt. Although not specified, the data and analysis would suggest that data were obtained by quantitative rather than qualitative methods. The sample frame comprised only of female constables, those female officers of a senior rank were excluded. The study referred to the career aspirations of female officers, therefore valuable data may have been lost by not including a representation of all ranks within the sample. The emphasis would appear to have been on cultural factors determining deployment patterns rather than internalised factors. The contribution of this study to this current area of research is therefore limited. Alexander (1995) concluded that more females than males were undecided as to their career aspirations, linking this to the possible effects of stereotyping. Holdaway and Parker (1995) however in a survey within South Yorkshire Police found that "women rated the opportunity for advancement and challenging work more highly than men" (p.7).

Westmarland (2001) discusses the way in which the police service complies with equal opportunity policies. She discusses what she refers to as "gendered assumptions" (p.18) of the type of posts males and females would be interested in applying for. She cites examples relating to the manner of advertising posts such as family protection officers, which are considered as a female province. The policy and procedures demonstrated a fair and impartial selection process, for which it is still predominantly women who put themselves forward. This suggests that having satisfied their legal responsibilities the service does not attempt to discover why this is the case, content in the knowledge that they cannot be challenged. She also found that the reasons for women working within roles or departments considered such as Family Protection Unit (traditionally associated with women) were accounted for by a variety of reasons. It is hoped that this research

will establish whether learning styles influence some women to apply for what could be considered as stereo-typical roles within the service.

3.5 Gender

Acker (1990) posits the argument that any organisational structure is not gender neutral, that masculine values pervade processes thereby contributing to gendered segregation Oakley (1974) argues that "Not only is the division of labour by sex not universal, but there is no reason why it should be" (p.530-1). She argues that gender roles are culturally rather than biologically produced, being a feature of social organisation (West and Zimmerman, 1987; Hofstede, 1994). Cockburn (1991) suggests that women deliberately choose an occupation which appeals to and reinforces their sense of identity, developed within a patriarchal society, described by Acker (1989) as "a system organized around gender difference and male dominance" (p.15), being socialised into "feminine patterns of behaviour" (Crompton et al., 1996, p.261). This stance is supported by Rees (1992). I would support both points, and have witnessed roles traditionally performed by one sex more than adequately performed by the other. Experience has shown that there are still officers, both male and female who believe some roles should be gender specific. Westmarland (1999) proposed that female officers have had a 'feminising influence' on the police service, colonising their own areas of expertise. Whilst it is not debated that there are some duties which have a higher than average percentage of females, this would appear to be at odds with the literature (Brown, 1997).

The acceptance of gendered roles is supported by the findings of Chan et al. (2003) from a longitudinal study of Australian police recruits who found that as the females became more experienced in policing, physical constraints became less significant to them. I have been witness to this change of perspective in female colleagues. As learning styles can change over time, it is possible this could also be an influence. The cultural pressures might suggest that the confidence levels of female officers would therefore be lower than their male colleagues. Love and Singer (1998) found no significant differences in self-efficacy ratings between male and female officers, indicating no difference in confidence of their ability to carry out their policing duties. This can be measured in some part by reflecting on the lack of any Equal Opportunities Policies within the police service following the introduction of the Sex Discrimination Act of 1975. Sandra Jones (1986) contextualized the effects of the implementation of this Act, and

the length of time before this piece of legislation made an impact on force policy. Eighteen years later Anderson et al. (1993) found that all forces eventually had policies in place. It is to be wondered whether the introduction of equal opportunities policies only materialized following the Home Office (1989) circular 87/1989 *Equal Opportunities Policies in the Police Service* which laid out the responsibilities of Chief Constables to implement such a policy.

Initially male and female officers officially performed different duties. Those first women officers were severely in the minority, and in no position of authority. At the Police Federation (a representative body for police officers) conference of 1976, (the year following the introduction of the Sex Discrimination Act) one representative was quoted as saying:

"Let us keep the ladies in their proper place. Pay them the same and give them the same conditions but let them do the women's work and relieve us of it." (Matthias, 1998, p.3)

The lack of support by the representatives of the Police Federation was not new and is well documented as "hostile" (Carrier, 1988, p.255). In 1977 at a meeting of senior police officers, one delegate voiced the view that;

"it is grossly unfair to encourage young slips of girls to join the police force and expect them to deal with the public disorder we find today." (Edwards, 1990, p.642)

It is likely that the low esteem in which women police were held by their male colleagues was so socially acceptable at that time as to be freely and openly expressed in the public domain. Dunhill (1989) goes further in suggesting that policewomen are never fully accepted, and are "under pressure to knuckle down to feminization or to assert themselves within a male-defined profession" (p.113). Reiner (1992) supports this view, stating that female officers have always struggled to "gain acceptance" (p.125). Foster, Newburn and Souhami (2005) found in their empirical study of four forces that

"It was clear that sexism and homophobia were not subject to the same scrutiny or disapproval as racism by supervisors and managers" (p.48)

Miller (2007) also found female officers still encountered "negative attitudes" (p.184).

3.6 Rank Structure

The police service is a hierarchical organization organized and governed on a paramilitary structure of rank. All officers enter as a Constable and must pass various exams and processes to become promoted in rank. The first line supervisor is at the rank of Sergeant, followed by:

- Inspector
- Chief Inspector
- Superintendent
- Chief Superintendent
- Assistant Chief Constable
- Deputy Chief Constable
- Chief Constable

The rank of Chief Constable is the equivalent to Commissioner in the London Metropolitan Police.

3.6.1 Attaining the Highest Rank

Silvestri and Crowther-Dowey (2008) refer to the concept of 'time' as it applies within the service of an officer, particularly as it affects promotion. There is a usual upper limit an officer can serve of thirty years. This linear constraint they suggest adversely influences the chances of promotion:

"the police career structure itself acts as an inhibitor to women's progression" (p.165)

This is a potential barrier for both male and female officers, but is amplified when consideration is given to any career breaks, for example maternity leave.

The appointment in Britain of the first female Chief Constable Pauline Clare in 1996 signalled the end of the male dominance of the highest Police rank. This highlighted the almost eighty year gap between the appointment of the first women officers and the appointment of the first female Chief Constable (Gillick, 1996). By 2001 this had risen to four out of fifty one Chief Constables being female (Walklate, 2004), and by 2004 the number had risen to five (Jackson, 2006) the figure at which it remains in 2009 (derived from Mulchandani and Sigurdsson, 2009).

The attainment of high office within the Police Service had not been without its set-backs. Assistant Chief Constable Alison Halford, who in 1990 was the most senior female police officer in the country, brought a case of discrimination against Merseyside Police. After suspension, the case was finally settled out of court in 1992, effectively ending her police career. She won an undertaking that the Equal Opportunities Commission, would thereafter participate in selection procedures for senior officers (Halford, 1993). The recent findings of the Equality and Human Rights Commission (2008) were that there had actually been a recent drop in women in senior positions in policing.

This must be set against the changing face of today's modern police force, as Silvestri (1998) suggests, the women in high management positions are seen as a symbol and measure of change. The difficulties encountered by women within the service are magnified should she also be black or Asian (Holder, Nee and Ellis, 1999). It is worthy of note that the percentage of women in supervisory ranks was lower in 2005 than prior to the introduction of the Sex Discrimination Act 1975 (Brown, 2007). According to Home Office figures for 2009 the total number of females at the rank of Chief Inspector and above stands at 13% nationally within England and Wales (Mulchandani and Sigurdsson, 2009).

3.7 Motivation

In 1993 Anderson et al. found that female officers still reported being deployed on 'safer' duties than their male counterparts, who were more likely to be deployed to violent situations, this resulted in one in every seven female officers considering leaving the service. This is despite the findings of research that has shown that the perceived physicality of the role of the police is not supported by empirical evidence, comprising of only a small part of police duties (Heidensohn, 1994; Chan et al., 2003).

Herzberg's motivation theory categorised what he referred to as either 'hygiene factors' (or demotivators) and 'motivators' (Argyle, 1972; Rogers, 1996). 'Hygiene factors' were found to be linked to bad experiences or poor relationships with supervisors and colleagues, company policies and working conditions, all of which ultimately lead to dissatisfaction. Motivators were found to be linked to achievement, recognition, responsibility, personal growth and advancement. It is therefore easy to see the demotivating effect that being deployed on 'safer duties' had on those females, a contributory factor in them considering leaving the service. It could be argued that this

would impact on people with particular preferred learning styles, such as Activist more than on their colleagues.

Bjork (2008) in his empirical research in Sweden suggests that motivation can be upheld by using a series of "perseverance strategies" (p.93) including redeployment. Wexler and Logan (1983) reported finding that the most often mentioned source of stress for female officers were the negative attitudes of male officers. Eysenck and Eysenck (1995) reported finding that lowering stress levels has a direct positive effect on prejudice (p.391), and raises the question whether reducing overall stress levels would impact on this negative behaviour. He, Zhao and Ren (2005) found that stress levels were higher in female officers than their male counterparts within a large urban United States police department, linking their findings to tokenism. Holdaway and Parker (1998) also reported that women officers reported "significantly less encouragement than men from their immediate supervisor, senior officers and colleagues" (p.54). This is a further example of a 'hygiene factor' having a negative motivational effect.

The numbers of female police officers has been steadily increasing albeit female officers still represent only 25% of today's British Police establishment within England and Wales (Mulchandani and Sigurdsson, 2009). Research has continued to confirm discriminatory treatment, sexual harassment and points to different duties for women (Jones, 1986; Brown and Campbell, 1993; Brown, Maidment and Bull, 1993; Brown, 1998; Brown and Heidensohn, 2000; Silvestri, 2003; Foster et al., 2005), intensified if also from an ethnic minority (Brown and Harleston, 2003). This has produced calls for further research into both individual and organizational motivations (Nicholl and Robinson, 2004). It also raises the question whether these factors influence certain learning styles more than others.

3.8 Drivers for Change

Hunt (1990) describes a new breed of policewomen who defy traditional gendered stereotypes, operating as professional women whilst maintaining their feminism, creating a new culture. Police organisational culture is certainly changing, influenced by the increasing numbers of females within its ranks. The impact of a new management style for senior officers also must be taken into consideration. Over the last decade there has been a noticeable attempt to influence with the use of web-sites which publish the strategic aims and objectives of the force. Johnson and Scholes (1997) caution against

the assumption that such declarations are true reflections of an organisation's intent, albeit not meant to deliberately mislead, reflecting instead perhaps a strategic intent. The real culture being recognised by the way the organisation is run. However, as Noaks and Wincup (2004) point out, reports and documentation can "provide an important perspective on how the organisation chooses to manage its public representation" (p.108).

The Police Service is currently going through some of the most significant changes since its inception. Moves have been made towards more community orientated policing, indicating a proactive rather than reactive method of policing. This steers away from the more macho image of police culture, focusing on the more people orientated skills. This modernisation of the approach to policing is reflected in the demand for a higher percentage of police officers to be women. Brown (1997) cites Ott's 1989 assertion that the 'take off' point for minority groups is when they reach critical mass or 25% of the workforce (Kanter, 1977; Brown, 1998a), when the minority group are then regarded as a normal part of the workforce. There is however a debate around the importance of numerical representation. Beck (2002) questions whether numerical representation alone is a sufficient precondition for equality. This stance is also supported by Silvestri (2003) who urges consideration "beyond the numerical" (p.184), arguing that a small number of strategically placed gender conscious females can effect change, and considers the effectiveness of numbers alone to be "debatable" (Silvestri, 2007, p.54).

Despite the Home Office focus upon recruiting more ethnic minority groups, there is little evidence of the same vigour being applied to the serious gender imbalance. Beck (2002) cites the Home Office Report (HMIC, 1996) which refers to the lack of recruitment from ethnic minorities. She emphasises the disparity in the level of commitment by the service to encourage women to join the police, in contrast to that of encouraging members of the ethnic minorities. It would seem that the Home Office do not class the lack of females as of equal concern to the lack of members of ethnic minorities. British policewomen currently represent approximately one in four of the total number of Police Officers within England and Wales. Murphy (2008) describes the police as recognising that leadership is not necessarily linked to rank, he found that there was an emotional aspect to what was considered to be a good leader. This could augment well for women as leaders within the police culture who could be seen as more aware of the affective elements associated with transformational leadership.

Silvestri (2003) refers to the strength of the police culture being routinely blamed for failure in police reform, and more generally that "organisations are a key site where gender divisions are routinely created, exploited, perpetuated, and preserved" (p.5). She also makes reference to reports on the Australian police which point to a link between increased numbers of female officers and reducing numbers of complaints against the police. She discusses the high profile investigations into the British Police: the MacPherson Inquiry (1999) into the death of black teenager Stephen Lawrence; the Scarman Report (1982) into the Brixton Riots and Lord Laming's Report (2003) into the murder of eight year old Victoria Climbié which have become milestones in policing history highlighting the mainly white male heterosexual culture of the organisation. These reports "emphasised the need for further attention to be given to the recruitment, retention and career progression of women" (Silvestri, 2003, p.6). From the perspective of a serving police officer I have witnessed that these reports had a twofold effect. They heightened awareness within the service of poor practice, but also had a detrimental effect on morale. Officers perceived the criticism to be unfounded in relation to the majority of rank and file officers. Dick and Jankowicz (2001) describe the literature into the police as vilifying the culture, with an implicit assumption of "malign intentionality" (p.183). Waddington (1999) questions the almost universal assumption that the police culture is malign in nature, finding little evidence for its translation into practice.

3.9 Deployment

Research indicates that women still tend to perform different duties from their male colleagues (Jones, 1986; Brown et al., 1993; Brown and Campbell, 1991; Brown, 1998; Brown and Heidensohn, 2000; Silvestri, 2003). Described by Walklate (2004) as

"vertically segregated, that is, the higher one moves up the organisation the less women are found; and horizontally segregated, that is, certain tasks are seen to be female tasks and others are seen to be male." (p.147).

If females are performing different duties, they may not be gaining the same experience as men. Gaston and Alexander (1997) examined the deployment patterns of male and female officers within an unnamed British Police Force. They found that females were over-represented in Family Support, but under-represented in areas such as Traffic, and Operational Support functions. Only in Uniform Patrol and Community Relations was

there found to be parity with male officers, with equal interest shown in the C.I.D. by both male and female officers. Coffey et al. (1992) found that female officers showed particular interest in both the C.I.D. and Traffic Department. Brown et al. (1993) reported differential deployment of men and women officers whereby women were more likely to be deployed in dealing with sexual offences than violent offences or disorder. This was also found to be the case where there was a perception that female officers were better suited to the 'emotional labour' and administrative aspects of police work (Fielding and Fielding, 1992). These findings are also supported by Brown and Campbell (1991) and Anderson et al. (1993). The literature leads to the conclusion that female officers are predominately to be found in stereotypical feminine roles, excluded from roles such as Traffic, Firearms, Drugs, Dog Handling and CID (Jones, 1986; HMIC, 1996; Pettman, 1996; Holdaway and Parker, 1998; Beck, 2002).

Differential deployment could potentially have a detrimental effect on the range and scope of experience gained by female officers. Brown and Neville (1996) refer to the possibility of this undermining women officers' perceived contribution to policing, but this also could have a de-motivating effect on women's desire relating to progression. Learning style preferences can be malleable, and may change due to experience gained within the workplace or elsewhere (Hadden and Lytton, 1968; Kolb, 1981; Hayes and Allinson, 1996. Differential deployment, and hence experience gained therefore has the potential to effect the learning styles of female officers over their male colleagues, which may influence career decisions. Pedler, Burgoyne and Boydell (1996) describe a learning organisation as "an organization that facilitates the learning of all its members and consciously transforms itself and its context" (p.3), and it would seem vital to the service to embrace this approach if it is to successfully utilize all staff effectively.

Walklate (2004) refers to the effects of 'cop culture' and how that may dissuade males from applying for posts in units such as Family Support which are not perceived as 'real police work'. This is discussed in relation to the lack of consideration from the Service as to the over-representation of women within these units, thereby re-enforcing its gendered image. As it is standard practice for posts such as these to be advertised she argues that more women apply and ultimately gain these posts. The argument has value, but begs the question as to a fair and unbiased alternative. Should officers have the right to choose which posts to apply for, or be ordered to perform those duties? Does the public want a keen and enthusiastic officer who is happy in their work, or

someone who has been forced into a role they do not wish to perform? The basis for these assumptions lies partially with socialisation, or learned behaviour, whereby practically any activity can be assessed as being more suitable to a particular gender (West and Zimmerman, 1987; Silvestri, 2003). Beck (2002) refers to the lack of application of the theoretical concepts of social and gendered power as applied to policewomen, referring to its prevalent use within the spheres of criminology in the context of female victims and offenders.

Despite the low numbers of female officers the majority of research on the police service does not take gender as a main focus (Heidensohn, 1992; Martin, 1996; Brown and Heidensohn, 2000; Beck, 2002; Silvestri, 2003; Schuck and Rabe-Hemp, 2005). Although as asserted by Thacker (1995) the message given out by any organisation can relay its values, he found that significantly fewer women than men applied to join the police. Kay (1994) called for the image of the police service to be portrayed differently if it is to attract more women. There is a body of thought that the increase of visible role models such as senior ranking female officers could have a positive effect on recruitment of females (Silvestri, 1998).

Research has found a consensus from both men and women of their motivation for joining the police service. The reasons predominantly consist of; helping people, job security, fighting crime, job excitement, and prestige (Meagher and Yentes, 1986; Chan et al., 2003; Seklecki and Paynich, 2007). This being said, the literature on policing contains a noticeable absence of emphasis upon female officers. This is stressed by Silvestri:

"The absence of enquiry into the significance of gender for policing is evident within police literature, with only a handful of researchers taking gender as their main focus" (2003, p.21).

In examining the careers of female officers and linking it to learning styles, it is hoped to provide a new context from which to view the existing literature.

3.10 Career choices

Holdaway and Parker (1998) found that men and women were equally likely to be interested in the same type of work. This is supported by Heidensohn (1992) who also

disputes the commonly held assumption that gender is equated with sex-role stereotypes. However, Brown and Heidensohn (2000) identify that

"there are relatively few studies that look at the preferences police officers exercise in terms of the area of policing they wish to work in" (p.89).

Again, this research seeks to address this imbalance. Powell and Mainiero (1992) suggest that women measure career success not by position or promotion, but by satisfaction levels. Holdaway and Parker's (1998) findings identified that women rated the opportunity for challenging work more highly than men. Wertsch (1998) found a propensity of women officers to "self position" (p.55) themselves into roles which reduced stress levels whilst performing their desired career choice. Martin (1996) reported that few of her respondents held the view that gender determined a particular career path. Silvestri suggests that "the gendered significance of tasks hold serious implications for the career progression of ... women officers" (2003, p.33). This is supported by Chan et al. (2003) defining management or non street cop duties as being considered less masculine, and therefore not considered to be *real* police work.

Therein lays the accepted view of the research to date. Some agreement with this interpretation has been found, but I will be examining the possible links between learning style and career choice. It may be that this also influences the choices made.

"Hunsaker ... suggests that the decision-making and problem solving processes which characterize one part of an organization will require, from those working within it, different learning styles to those required in other parts of the organization with consequent implication for career choices." (Swailes and Senior, 1999, p.2).

I will explore this suggestion that different learning styles suit different parts of the organisation, and its implications for female officers. The review of the literature as it applies to this research has been laid out, and the next two chapters will outline the methodology employed, and design issues encountered.

CHAPTER FOUR

Methodology, Research Design and Data Collection Methods

4.1 Research Design

This chapter describes the research design and data collection methods which were adopted during the research, the processes, procedures and rationale employed including the recording of data. The sceptical reader needs to be reassured that conclusions are securely based on relevant data which has been reliably and ethically collected. My research question 'is there a link/relationship between learning style and career choices?' dictated the design of the research tools. I have chosen a qualitative research paradigm, using one police region as a case study for surveying recruits, drawing data from a qualitative survey which accompanied trainees' completion of the Honey and Mumford LSQ during a routine training programme; and using semistructured interviews of more experienced officers. The results of this are expected to have consequences for the continued use and utilisation of the LSQ (that is, whether it continues to be used, and how), how learning can be better scaffolded, and how learning and career choice can be brought into closer relationship. It is not possible to follow these trainees through their 30 years of service, so a purposive sample representative of different stages of career trajectory were selected, and interviewed about their careers in the light of their learning styles.

4.2 Questionnaires

In order to start gathering data for the first two objectives it was decided that the most appropriate method would be to use qualitative questionnaires. This allowed a large number of officers to be included in the survey which would capture details of the respondents preferred learning styles.

Cohen et al. (2000) discuss the benefits of surveys, referring to their use in obtaining mainly large amounts of data which could be generalized "at a specific point in time" (Denscombe, 1998, p.6), for example test results. The respondents would be completing the LSQ prior to also completing a separate questionnaire, some similarities could therefore be seen in this approach in the initial stages. Denscombe (1998) also

emphasises that the survey is a strategy rather than a method, this methodology although similar was not a survey.

4.2.1 Advantages and Disadvantages of using questionnaires

When deciding to use questionnaires for the early part of the study, I also felt that it was appropriate to devote time to consideration of my own objectivity. The benefits in using questionnaires for the initial part of my research included the following points:

- Suited to obtaining straightforward information. The data collected at the start of the research was of a more simplistic nature, albeit requiring standardised data from identical questions.
- Suitable for large numbers of respondents. It was decided to obtain data of learning styles from as many junior officers as possible within the time frame.
- Resources and time. As a serving police officer I had to consider the most effective
 use of time for myself and the officers to be surveyed. Questionnaires were the most
 efficient method.
- Easier to maintain objectivity. New recruits and junior officers were used as the sample. Although primarily interested in female officers, there was potentially a possibility of a lack of detachment from the process. Care was taken not to influence the respondents in their responses. It was decided to ask officers open ended questions regarding their career aspirations, ensuring that they were not unduly influenced.
- Inhibitions may be diminished. There was a possibility that to ask a new recruit or
 junior officer what their career aspirations are could be perceived as quite
 intimidating. It was felt that officers young in service may feel this to be a sensitive
 area. The use of questionnaires provided them the opportunity to supply the
 information anonymously if they wished.
- Provides direct comparison between sample groups. The questionnaire circulated to
 the new recruits was the same as the one used for the junior officers. This afforded
 the opportunity to compare responses at the analysis stage, looking for trends within
 the data. It was intended to look for trends relating to gender, age, length of
 service, previous occupations, managerial experience, career aspirations and learning
 style.
- Response Rates. The sample groups were from officers attending training courses; it
 was probable that response rates would be good. Initially it had been a

- consideration to use the internal mail system to distribute the questionnaires, but this was discounted as this approach may have achieved a low response rate.
- Analysing the data from questionnaires would be straightforward. The information could be input straight onto a database.

The disadvantages of using questionnaires were also deliberated upon:-

- Ill considered or deceitful responses would be more difficult to detect using questionnaires. This would be easier to discover if face to face with the respondent, where it would be more feasible to check for incongruity of information provided. There is little that could be done to address ill-considered responses, but by including an introduction seeking the help of the respondents, outlining the purpose of the research, it was hoped that would limit this possibility.
- There is also a danger of respondents supplying sparse details, thereby affecting the
 quality of the data. To try and combat this, the questionnaire was kept as short as
 possible.
- Poor response rates. By asking police trainers to distribute and collect the questionnaires during training courses, it was believed that the potential for this was minimized, although perhaps not eliminated.

4.2.2 Questionnaire Design

Oppenheim (1994) points out that the completion of questionnaires can be "extremely time-consuming; for this reason researchers have to curb their desire to have too many open questions" (p.113). Consideration was given to the effect on the respondents of completing both the LSQ and a questionnaire. Respondents may be influenced by the appearance and layout of a questionnaire. Therefore every effort was made to make it as user-friendly and short as possible. Johnson (1994) explains that "The task required of respondents must appear to be easy and attractive" (p.43). In creating the questionnaire there was careful monitoring of the wording and ordering of all questions. Initially the questionnaire only asked for gender, length of service, learning style preferences and two questions relating to skills and aptitudes and to elicit career aspirations. The piloting process of the questionnaires also helped to clarify the wording of the questions. This also helped to maintain objectivity (Denscombe, 1998).

4.2.3 Group Interview for Questionnaire

Initially a group interview was conducted as part of the pilot study in the hope of identifying additional themes or lines of inquiry for the subsequent research (Cohen et al., 2000, p.288). There was also a need to test the questions that were intended to be included in the questionnaires to be used as the research instrument. To this end, a group interview was held using a group of police officers attending a police trainers' course. It was known that the participants were already aware of their own individual learning styles. The group which comprised of both male and female officers identified some key issues for me as the researcher. The group highlighted that they considered themselves as novices in this area. There had been an intention to run further group interviews with similar groups, but as a result of this development a decision was subsequently made against this. The experience proved to be worthwhile, but as a result the methodology was adjusted.

4.2.4 Pilot of Questionnaires

Prior to the main data gathering, the questionnaire (APPENDIX A) was piloted. First it was circulated to two specified groups (new recruits and junior officer students), using two cohorts from the first and three cohorts of students from the second group. Second, the questionnaire was piloted on some experienced trainers and a 'critical friend' with experience in this area. As a result of the piloting process the questionnaire was amended with the following additional questions:

- Age
- Previous Occupation
- Previous Managerial Experience
- Actual Scores from the LSO
- Course number

Age

From the piloted questionnaires, a significantly higher proportion of the junior officers were undecided on what role they would most like to undertake in the future than the 'new recruit' officers. This was unexpected, and necessitated a strategy to explore it further within my planned methodology. There could be a number of reasons for this including age, experience, and a change in their learning styles. Because age had not been requested in the first version of the questionnaire it was not possible to revisit and

look for any further trends there. Following the pilot, it was felt to be important to amend the questionnaire to ensure that the data collected was valid. Cohen et al. (2000) explain that "in qualitative data validity might be addressed through the honesty, depth, richness and scope of the data achieved" (p.105). These first two batches of questionnaires were therefore treated as a pilot.

Previous Occupations/Previous Managerial Experience

Prior to commencing this research I was aware of the change in learning styles that can naturally occur. Vermunt (1996) refers to this as distinct from other more stable characteristics

"Learning style is not conceived of as an unchangeable personality attribute, but as the result of the temporal interplay between personal and contextual influences." (p.29)

This was highlighted to me in noting the difference over a four year period in my own preferred learning styles. As most new police officers have come from other occupations, this could prove to be particularly relevant. In re-considering the format of the revised questionnaire, a previous decision regarding the inclusion of questions regarding respondents' previous occupations and managerial experience was reversed, and questions were added to elicit that information.

Learning Style Questionnaire Scores

Following the piloting of the questionnaire, the value of some of the data gathered was considered. In conducting this evaluation it was identified that the respondents had only been asked to indicate the general predominance of their learning style(s) (APPENDIX A). Honey and Mumford (1992) provide a model from their results of Police Inspectors and Sergeants, providing their average mean for each learning style. There was a realisation that should it later be necessary to discover the Learning Style 'norms' for my participants the actual scores from the LSQ would be required. Therefore this part of the questionnaire was amended (APPENDIX B) to ask for the actual scores from the LSQ. This amendment enriched the data, and helped to identify any particular trends.

Course Number

Each new cohort of police recruits are allocated a unique course number, this system allows the cohort to be tracked through their initial training. During this time the cohort

will attend several training courses as a group. I realised that if I wished to pinpoint when a particular questionnaire was completed, the course number would be useful.

Amended Questionnaire

The amended design included the LSQ and marking guide (for self-completion) (APPENDIX C), my questionnaire and a handout. The students thereby established their learning style scores, and then completed my questionnaire (APPENDIX B). This elicited whether the respondent is male or female, their age group, and qualitative data regarding managerial experience, and future aspirations within the Service. Due to the very low number of ethnic minority officers I did not request ethnic origin as the resulting numbers would be too low for any meaningful analysis. Following the completion of the questionnaire the students were given a copy of my handout (APPENDIX C). This was also then linked into their lessons on the Experiential Learning Cycle (Kolb, 1984), and reflective practice provided by the training staff.

The questionnaires explained the purpose of the research and that all information would be treated in the strictest confidence. Students were invited to append their name if they were willing to be further involved in the research. Completion of the questionnaire was voluntary, any student who did not wish to complete it did not. 40% of male respondents provided their names, and 46% of female respondents - indicating a willingness to be contacted later in the research.

Following the pilot I realised that I had to cater for exploring the possible effects of a change in learning style as the officers become more experienced within their role. I had not originally catered for this with the questionnaires or methodology. I had to ensure that I built a strategy into the methodology to gather this data. It had to be included within the questionnaires, and also within the interviews to be conducted at a later stage. I intended using some of the initial respondents as potential interview subjects at a later date. A strategy to collate this data included re-visiting those participants who had supplied their names, at a later stage in their careers. I used what has been referred to as multi stage, or multi phase sampling, revisiting some of the original sample for interviews at a later stage of the research (Denscombe, 1998; Cohen et al., 2000).

The data provided from the questionnaires was designed to assist me to answer objectives 1 and 2. The questions were designed specifically to answer my research question.

4.2.5 Sample for Questionnaires

The next step was to decide which officers to use as the sample. Most empirical studies of learning styles have been conducted on university students (Coffield et al., 2004). My sample would be different in that it was from an occupational group. The decision was directly influenced by the aims of the research. In order to obtain details of officers' early career aspirations the most appropriate group would be officers young in service. The sample for the initial qualitative questionnaires' was purposive: all new police recruits trained within the course of a year. These provide evidence of early aspirations and thinking, a few weeks into their police careers. The new recruits completed their questionnaires within their first two weeks of service, prior to being immersed in the culture of the organisation.

The focus of the research was primarily female officers, but it was also wished to establish if there is a link between learning style and careers. To achieve this it was important that the questionnaires used in Phase 1 of the research should be given to both male and female officers, for comparative purposes and as a control, also to gather as much relevant data as possible. Although the primary aim related to female officers, I felt it important to include male officers within the initial sample. This decision followed a great deal of thought as to the ultimate credibility of the research. If a link was found between learning style and careers, to exclude males from the research would be to ignore a vital element without which the research may be flawed. Some feminist methodological approaches were consulted to establish a further position of this aspect of the research (Oakley, 2000). Learning styles from the perspective of females were to be examined, but not at the expense of entirely ignoring male officers.

Further support for this stance was found in Alvesson and Sköldberg (2000) observation that "Much gender-based organizational research has adopted a narrow approach, staring blindly at the way women are disfavoured" (p.220). This particular pitfall also had to be avoided. A decision was reached to use both male and female respondents for questionnaires in Phase 1 of the research. This would allow the gathering of data relating to the preferred learning styles, and career aspirations of both male and female

officers whilst early in their service. I would be able to compare the results at the analysis stage to look for any similarities or differences between the two groups. I believed this to be important to the outcomes of the research to find any trends that may emerge from both groups regarding early career aspirations. It was also to inform the planning for Phase 2 where I would be moving on to the exclusively female sample in the interview stage.

The next decision related to sample size, which groups to use and how many. It was decided that officers within their first fortnight of service would be the most appropriate, because their learning styles score could be determined prior to any possibility that they may be influenced by organisational factors.

At the time of Phase 1 of the research, nationally, a new group of officers were recruited every five weeks, and commenced their training on a two-week course referred to as 'Stage 1'. For the period between January to December 2001, the number of officers for each intake varied between 12 and 15 trainees. The proportion of female recruits varied between 2 and 9 of the group. Enquiries with the recruitment section revealed that there was no way to forecast how many females would be recruited over the coming year. As this was uncertain, every intake for the whole of the following year was utilized. An estimate was made that if each intake had 14 officers this would provide a sample of approximately 154 officers. If 25% were female this could provide approximately 38 possible female officers within the sample. It was felt that this would provide a credible sample frame of both male and female officers.

The possibility of returning to some of these officers at a later date to establish whether there had been any change in their learning style was then considered. Also, whether they had been successful in attaining their aspirations within the service, or whether their aspirations as stated previously had changed. The first is achievable, the second could prove more problematic. Police officers have a two-year probationary period, which they must complete successfully to be confirmed in rank. During this time they must remain as operational uniformed officers until they complete their probation. Due to the time scale of the study the initial sample may not have achieved sufficient service and experience to have moved on to a specialism.

Again consideration was given to the requirements of the study and sample. It was debated whether to use a further group of officers also attending training courses. New constables attend a series of training courses during their probationary period, the last in the series (referred to as a Stage 6 course) occurs when they have achieved approximately 14 months service. If this group were to be used it would provide access to more female officers who are young in service, and would afford the possibility of returning to interview some of them at a later date when they may have moved on to a specialist department. It could provide valuable data for comparison with the first group. These courses, as for the first group ran every five weeks. The questionnaires were being circulated to every officer in both groups.

If taken in the larger context of all Police Forces in England and Wales, this could be referred to as a geographical cluster sample (Cohen et al., 2000). It was hoped that this would provide good reliability, and be statistically representative. A total of 177 completed questionnaires were received from new recruit Police Officers who were within the first two weeks of their training, and 109 completed questionnaires returned from junior officers with 14 months service were returned, providing a total of 286. The response rate for the new recruits was 82.5% and for the junior officers was 57%, the overall response rate for the questionnaires was 70%.

4.3 Interviews

Cohen and Manion (1994) describe an interview as a

"transaction that takes place between seeking information on the part of one and supplying information on the part of the other." (p.271)

Interviews provide the opportunity to further explore issues arising from questionnaire responses, whilst also allowing the interviewee freedom to expand on issues under discussion. Ely, Anzul, Friedman, Garner and McCormack Steinmetz (1991) identify the importance of being able to "able to swing with events" (p.63) as a qualitative researcher. Thus, the flexibility that interviews afforded me to pursue issues raised could provide me with a valuable source of more in-depth and detailed data. I would agree with Gerson and Horowitz's observation that "In-depth interviewing ... requires a more deductive approach to research design and theory building" (2002, p.199).

4.3.1 Group versus Individual Interviews

Denscombe (1998) states that group interviews can have advantages over individual interviews but also recognises that a

"potential disadvantage of group interviews is that the opinions that are expressed are ones that are perceived to be 'acceptable' within the group." (p.115)

Robson (1993) also warns of the difficulties which may be encountered including the difficulty of following up on comments made by individuals within the group. This view certainly appears to have merit, and therefore a decision was reached against using group interviews. The interviewees belong to a strong organisational culture. It was felt that interviews conducted on an individual basis would be more appropriate in the circumstances.

4.3.2 Semi-Structured Interviews

A formal structured interview would be restrictive, and set questions would not permit flexibility to pursue areas of interest which may be introduced by the participant. I decided to proceed using semi-structured interviews, providing the scope to probe the issues brought up by the interviewee, whilst still allowing the interviewer to pursue a "clear list of issues to be addressed and questions to be answered" (Denscombe, 1998, p.113). I considered the widely held assumption that interviewing is just a one way exchange of information (Fontana and Frey, 2000), considering the dynamics of the interview, and planned from the outset for a two way exchange. Which was to ensure that the interviewees were aware of my background in the service prior to the interview to reassure them of my understanding of the police, and also what Cohen et al. (2000) describe as

"how to motivate participants to discuss their thoughts, feelings and experiences, and how to overcome the problems of the likely asymmetries of power in the interview where the interviewer typically defines the situation" (p.279)

I anticipated that occasions may arise where participants may expect a response from me, or a demonstration of understanding which I felt would be appropriate. Cohen et al. refer to the influence of feminist research on this type of situation:

"Interviewers can show their human side and answer questions and express feelings. Methodologically, this new approach provides a greater spectrum of responses and greater insight into the lives of respondents" (2000, p.658)

I did not wish to alienate the respondents or treat them as "objects" (Cohen et al., 2000, p.658), and wanted to ensure the opportunity was afforded them to feel comfortable to discuss their experiences. I was aware that I would have to monitor this carefully as it is their views and opinions that I wanted, without being unduly influenced by me. I intended the interviews would flow as naturally as possible, and was not concerned if the participant strayed into areas not previously considered by myself as this could be a rich source of data.

4.4 Logistics

At the outset I had initially considered to facilitate objectivity by using an independent interviewer to conduct some interviews, knowing that they would have to have a full understanding of the issues involved in order to obtain the best from the interviewees. This I believed to be a strategy to check on the reliability of the interview schedules. However, Cohen et al. (2000) refer to

'the premises of naturalistic studies include the uniqueness and idiosyncrasy of situations, such that the study cannot be replicated – that is their strength rather than their weakness' (p.119).

Therefore although my first thoughts were to attempt replication in so far as another interviewer using the same questions with different participants, I realised that this was not necessarily the best and most productive way forward. It would depend on the independent interviewer having an in depth knowledge of the research, without which the ability to maximise issues arising from the interview may be lost.

As the research progressed, becoming increasing complex I decided it was more effective to conduct all the interviews myself as a reflexive researcher, ensuring that no rich source of data would be lost. I felt that to fully brief another person could be problematic, particularly following my decision to use semi-structured interviews. I decided to also keep a reflective diary to record my thoughts and observations during the process.

I did consider telephone interviewing although I deemed it impractical due to the need to ask the interviewee to also complete the LSQ. Breakwell, Hammond and Fife-Schaw (1995) ascribe to the view that there is a likelihood that the interviewee may wish to keep the interview briefer than in a face to face interview. For these reasons I decided against it.

4.5 Interviewing Police Officers

Silvestri (2003) discusses issues relating to the power dynamics involved when interviewing police officers, highlighting that:

"It can be argued that academics are often portrayed as those with no knowledge of the 'real' world, and certainly no knowledge of what is involved in 'real' policing." (p.11).

In referring to issues of power when conducting interviews with police officers she states

"They are skilled interrogators; they are the ones who ask the questions. They have the power and are able to control and set the agenda in interactions with those they police; this is true even for those officers occupying the lowest rank of constable." (p.11).

I would expect the skilled interrogators to be of Constable or Sergeant rank as it is unusual for higher ranks to conduct interviews. Police officers conduct two types of interview, suspect interviews and witness interviews, and it is inevitable that although very different in form and intent some skills would be transferrable. As a serving police officer and therefore perceived as an insider I did not anticipate any resistance from participants.

It was also believed that richer data can be obtained from a researcher who has an indepth knowledge and understanding of the occupational culture, rather than 'bandit' researchers, or what Holdaway (1983) describes as "smash-and-grab" (p.11) ethnographers who gain temporary access to an organization but have no concept of the norms and values that motivate the attitude and behaviour of the participants.

4.6 Narrative Enquiry and Voice

"Nicholson and West (1989) emphasise that career narratives are stories of transitions, punctuations, pauses, and turning points that mark work histories" (Silvestri, 2003, p.13).

The interviewees were invited to relate their career history utilizing aspects of narrative inquiry as part of the process. Prior to the interview they were invited to consider their career as a journey from one point to another, and consider some of the obstacles they may have encountered on the way. They were telling the stories of their police career in the form of a narrative, as well as answering questions set by the interviewer. Silverman (2000) explains how this approach can provide a rich source of data. Stake (2000) cautions that the researcher has to be aware of the limitations of their choices in interpreting the data, a solid warning which was considered at all times during the process. It was possible that in relating their experiences respondents may experience an emotional reaction. It is important to ensure that the emotions expressed by the respondent are captured and not lost due to an aversion on behalf of the interviewer to explore this area. Alvesson and Sköldberg, (2000) argue that emotions are connected to the cognitive level, and influence how people make judgements (p.216). This provides and caters for a richer and more in depth account. A judgement had to be made whether it was appropriate to pursue this, in each case based on its own merit.

Voice

One of the considerations apparent in feminist research revolves around the concept of *voice*. It is a central concept to feminist research to ensure that the voices of women are heard, and it is equally important to remember the role of the researcher in reflecting this. In pursuing this ethos I am aware of the potential difference between *voice* portraying perceptions and actual lived *experiences*, as memories can be unreliable and so will be drawing upon aspects of conversation analysis (C.A.) for what is said, omitted and also how it is said (Silverman, 2000; Kitzinger, 2004).

4.7 Interview Schedule

Once Phase 1, the questionnaires phase was complete, I progressed onto the semistructured interviews. Prior to the interviews being undertaken the data collected thus far was reviewed. This allowed the identification of trends, which then formed the basis for some of the interview questions. During the interviews with more experienced officers more in-depth questions were utilized, expanding on the questions used for the questionnaires. Kvale (1996) stresses the importance of using 'why, what and how" questions in interviews in order to elicit spontaneous descriptions of events from the interviewee. During the planning process in creating the interview schedule the questions were designed to gather data to answer the research question.

In creating the interview schedule, a record was made of questions which might be incorporated was created. Once ready to proceed these questions were reviewed and put into themes. The degree of relevance and effectiveness of each question was examined for relevance. The most relevant were incorporated into the schedule. The schedule (APPENDIX F) was used more as a guide than a strict list of questions (Arksey and Knight, 1999). A decision was made to use open questions to elicit fuller responses, and that if a participant had already answered a question it would be mentioned to them and they would be asked if they had anything to add. In this way no assumptions were being made by the interviewer, and the participant would be afforded the opportunity to clarify. The initial questions were to be of a more factual nature which Henning, Stone and Kelly (2009) explain can be easier for the participants to deal with.

Each question which was incorporated into the schedule was itemised with my rationale for its inclusion, this helped in weeding out irrelevant questions. The data from each question would be compared to the learning style of the interviewees. A sample of the questions which were included, along with a summary of the rationale is shown below:

• On joining the Police did you have aspirations to join any particular Department?

This question was to establish if as new recruits the interviewees had identified any particular roles that they aspired to relate to learning style, and establish any similarities and differences between males and females. This question also allowed comparison to whether those goals have been achieved, or uncover any issues relating to failure to achieve those goals and aspirations, providing data for objective 2.

• What role do you think would best suit your own individual strengths? This was included to act as a review question to establish if there would be any differences from the response relating to aspirations. This question was included to establish whether respondents would differentiate between what they considered themselves to be skilled at and what they aspire to, and to compare answers to their learning style. This was intended to help understand the deployment of female officers, objective 3.

Do you recognise the elements of your preferred learning style(s) in yourself?

Prior to attending the interview, the interviewees had been asked to underline the parts of the four Honey & Mumford Learning Style Descriptors (APPENDIX C) that they felt particularly resonated with them. This was then used as a basis for discussion in the interview to establish which parts of their preferred learning style descriptions resonated with them, and to which parts of their careers they could relate this to.

• Do you think that your preferred learning style is the same now as before you joined the police?

The Literature Review identified that Learning Styles can change over time. I wanted to establish if the participants felt that their style had changed or remained the same since becoming a police officer, and to identify any possible influences. There was an opportunity to review previous LSQ scores if applicable.

Prior to each interview a letter was sent to participants asking them to consider their careers as a journey between Lands End and John O'Groats (APPENDIX D), and to reflect upon whether there were any road blocks, no entry signs, fast-tracks or motorways to where they wanted to go. It was hoped that this would encourage more in-depth refection. They were asked to complete the LSQ to establish their preferred learning styles prior to the interview, and during the interview they were asked to relate their answers to aspects of their learning style.

4.8 Interview Sample

It was intended that phase 2 used qualitative individual semi-structured interviews with between fifteen to twenty female officers. It was felt that this would provide a sufficient sample frame, with flexibility to increase the sample size if appropriate. Silverman (2000) explains that "as new factors emerge you may want to increase your sample in order to say more about them" (p.108). Eventually eighteen female officers were interviewed, before I reached what Denscombe (1998) refers to as "theoretical saturation" (p.216) point where the same themes were emerging from each interview, with no new themes coming to light which would add anything new to the analysis. A decision was taken to therefore cease undertaking any further interviews.

The LSQ was again to be used to identify individual preferred learning styles. It was intended that the sample would be representative of length of service, roles undertaken and rank. The next step was to consider the sample group for these interviews. The

sample from phase 1 did not provide a sufficiently diverse sample for my purposes - albeit that using junior officer (Stage 6) students would afford the opportunity of establishing whether there is a relationship between age, experience and learning styles. I intended to check with some of the same people approximately 18 months later, looking for a change in learning style over time. This would provide a short-term longitudinal element to the study. Breakwell et al. (1995) refer to this as "especially useful for tracking developmental changes and the psychological impact of life events" (p.101). Thirteen female respondents voluntarily supplied their names from the Stage 6 course. This dictated the potential sample for this exercise.

I also considered using officers with a range of service attending an Equal Opportunities Diversity training course, which could provide me with a further perspective. This training was compulsory for all officers and civilian police support staff (irrespective of rank) within the Force in question. This would have provided me with a cluster sample (Denscombe, 1998). The officers attending this training were both male and female, of all ranks, and representative of the full spectrum of the police service. However upon investigating the time scale of the implementation of the training it did not afford me with a realistic opportunity to interview any of the students. I also considered using officers from selected departments such as the Firearms Department, or Traffic Department but realised that the number of female officers working within such departments were too low for my purposes. On reconsidering the selection of my sample I reassessed the requirements for the research. I needed to interview female officers with a range of police service, experience, age and rank; they needed to have worked in specialist roles. The use of a broad sample in the data gathering process is important. I recognised the importance of considering the ultimate credibility of the methodology. I therefore used a further sample from outside my own Force in Phase 3 of the data collection. Phase 3 involved further interviews with officers of ACPO rank, one Chief Constable and one Assistant Chief Constable. This decision was taken due to the deficiency of females attaining this rank within the case-study force. The Assistant Chief Constable had served the majority of her service in the home force were the research was conducted prior to her promotion. The other a Chief Constable had never worked in the home force in which the research was located. Both fulfilled the criteria of having worked within a variety of departments within the police service. Silverman (2000, p.108) supports flexibility as being one of the strengths of qualitative research design.

Anonymity for participants was assured by allocation of a pseudonym to each interviewee, and maintaining a secure master-list. The questionnaires completed within Phase 1 were all examined and those female participants who had supplied their names were all contacted via letter (APPENDIX G) and invited to participate in the research further. It was discovered that 2 had resigned, and only 4 volunteered to be interviewed. This was less than had been hoped.

This development made the sample for the interviews with more experienced officers more urgent. The Sample from the experienced officers needed to reflect some seniority of service, and more importantly experience within different departments. Some thought was given to how this could be achieved, and it was decided to implement purposive sampling where the participants were effectively hand-picked (Denscombe, 1998), as it was anticipated that this approach would yield the most valuable data. To this end a phased approach was adopted where letters (APPENDIX D) were sent via email to eight to ten female officers at a time. It was hoped that this would generate a sufficient sample size to proceed. Although receiving many offers to participate only twelve women from within the force actually followed through to the interview stage. A conscious decision was reached and a strategy was adopted that no more than three contacts would be made with each individual to ensure there was no perception of being badgered into taking part.

4.9 Location for interviews

The location and time of the interviews were agreed on an individual basis with the subjects, the venue chosen to minimise the possibility of distractions. Some participants chose to be interviewed within their home environment and the remainder opted to be interviewed at a suitable location within the work environment. All interviewees were informed that the outcomes of the research would be available for their perusal should they so require. Despite having experienced difficulties in obtaining volunteers for the interview stage, it was time to start the interviews with the more experienced officers. The following sections examine the process undertaken to gather, record and present the data.

4.10 Recording of Data

For the sake of accuracy, each interview was audio-tape recorded with the express permission of the interviewee so that transcriptions could be prepared. Prior to each interview I discussed with the interviewee the purpose of tape recording, who will have access to the tapes, how they would be used, and how long they were likely to be retained. I offered each interviewee the opportunity to remain unnamed on the tape, or to use a fictitious name if they wished. That they would remain anonymous was included within my ethical statement, a copy of which was supplied to each individual.

I did consider videotaping interviews which would also capture gestures and non-verbal communication. This could potentially provide richer data, but I decided against this for several reasons: -

- Most people dislike being filmed, and feel uncomfortable, which may have jeopardised the data.
- It may raise issues within the interviewees' mind relating to confidentiality and anonymity.
- It would be more intrusive than a tape recorder.
- A video camera and tripod would be far more difficult to transport to interviews.
- It would be more difficult to transcribe the tapes.

In retrospect I believe that I made the correct decision in not videotaping the interviews, all the respondents stated they were comfortable with the methodology I employed and tended to forget about the tape recorder. I considered that should an interviewee refuse permission for tape recording, I intended to seek their permission to proceed with the interview taking written notes only.

On occasion the quality of the tape recordings was not good which made transcribing difficult. I also experienced an occasion where a tape had finished and the interview had continued as I had not heard the tape stop. I started to use two micro tape recorders as some insurance should this happen again. I also used a microphone which improved the quality further. I initially anticipated that each interview would be approximately one hour duration but found that most of the interviewees wished to prolong it to up to two hours and I found a good supply of back-up tapes essential.

4.10.1 Note taking

I intended to take brief notes whilst conducting the interviews even if the interviewee had agreed to it being audio-taped. The issue of note taking was discussed prior to the commencement of each interview, and is included in the ethical statement (APPENDIX G). The interviewee was informed of the purpose of the note taking, who would have access to the notes, how they will be identified, and how long they are likely to be retained.

Each set of notes was identified by means of a number with no reference to the name of the participant. The master list was kept separately and securely to ensure privacy and confidentiality. This allowed me to be able to record responses to the set questions, and also to record items of particular interest, which I wished to ask further questions about. Note taking would allow me to be able to record any non verbal communication I observed and deemed to be relevant. As a Police Officer I am familiar with taking brief systematic notes in interviews. I found it comfortable to take some notes during the interviews, and that sometimes the participants would speak more fully whilst I did so.

I did consider from an ethical standpoint whether I should offer the notes to the interviewee for their perusal. There is an argument, particularly in feminist research to fully involve the participant, however on this occasion I decided against this. My rationale being that the notes are very brief records of the content of the interview, and could be misinterpreted.

4.10.2 Transcribing

A decision had to be reached as to whether to fully transcribe all the taped interviews. Bell (1993) suggests that for every hour of taped interview, ten hours would be needed to fully transcribe the contents. Initially I fully transcribed the tapes myself. All tapes were listened to repeatedly to assess the need for full transcription, whilst at the same time allowing me to become immersed in the data. All but two interviews were fully transcribed, the remaining two were summarised. Each transcript was carefully checked for accuracy by listening to the tape, and any omissions or errors were corrected.

Denscombe (1998) states that "Intonation, emphasis and accents used in speech are hard to depict on a transcript" (p.132). By listening to the tapes on several occasions I hoped to identify any such occurrences, and I also had my notes to refer to. Denzin and

Lincoln (1994) advocate the use of ellipsis (e.g. the use of 3 dots ... to indicate an omission) to edit out irrelevant phrases and sentences, and where unclear or inaudible sections of the interview occurred this was used. I felt that if anything had been missed out it was important to indicate it in the transcript.

Copies of their transcripts were offered to all the interviewees, providing respondent validation together with greater reliability. Initially I believed that it would be useful for the interviewee to check the accuracy of the transcript (Denscombe, 1998). In practice although most of the interviewees expressed interest in the research, none wished to read a transcript of their interview.

Transcribing the tapes was very time consuming, and although this approach helped me to concentrate on the data I decided to seek some secretarial assistance. Having transcribed two or three interviews I decided to approach two experienced audio typists who offered to type transcripts verbatim. I discussed issues of confidentiality with them and explained that it was unlikely that they would know the women interviewed and that I would refer to each tape by its interview number and not by name. I would not inform them of the identity of any of the interviewees. Having gained their agreement, I created a pro-forma for the transcription and also a guide for the transcribers:

- Ignore repetitions e.g. "What I mean, what I mean is" to "what I mean is"
- Ignore any silences or pauses
- Ignore verbal tics like "um" or "er"
- Abbreviations where interviewee has said "isn't" keep it authentic and not change to "is not"
- Where interviewer speaks begin a new line with

0

Where person being interviewed speaks start new line with

A:

- If you cannot hear or decipher what has been said please indicate this with **
- Please make 2 copies of interview on CD-ROM discs (supplied) on Microsoft Word.

After the first tape was transcribed I found that there were gaps in the transcript which I then had to go back over and fill in, there were also inaccuracies in what the interviewee had actually said. This happened with three transcripts altogether and I was faced with a dilemma. The second typist had agreed to assist if the first could not undertake the work for any reason. I managed to get the second typist to complete a transcript which

was faultless when compared to the tape, and from then on I only used the second typist. I also learned to ensure an agreed timescale for the return of each tape and transcript, as this had seriously delayed my analysis with earlier tapes.

The next chapter will discuss some of the methodology issues considered, including ethical considerations and issues of validity and reliability.

CHAPTER FIVE

General Methodological Issues

5.1 Research Design

This Chapter outlines my methodological approaches. Gerson and Horowitz maintain that qualitative research is flexible, and that is a strength:

"Indeed a significant advantage of the qualitative approach is its flexibility in allowing the researcher to move back and forth in a cyclical way as the discovery of theoretical insights prompts adjustments in the research design" (2002, p.200).

They suggest that when a project begins with "an empirical or theoretical puzzle ... often implies in-depth interviewing" (2002, p.201). Yin (1994) argues that case studies are the preferred strategy when *how* or *why* questions are being asked 'within real-life context' (p.1), and links their use to evaluation research. Flyvbjerg (2004) defends the use of case study as a mainstream strategy in qualitative research. Stake (2000) describes "instrumental case study" (p.437) as that in which each individual case is used to provide insight into a particular issue. These accurately describe my research.

There were limitations imposed on the research by the imposed time scale. This set the time parameters of the study; the opportunity to monitor new recruits over a prolonged time span was not possible. A longer study would have been possible to observe any changes in learning styles, or the aspirations of individual police officers. In order to compensate for this, interviews with officers with a range of experience were conducted, asking them to look back over their career choices with a new insight and understanding of their learning styles and choices. Charlesworth (2005; 2008) conducted a longitudinal study using a modified version of the LSQ with international students at an Institute of Higher Education in Switzerland concluding that her findings support a cultural - learning style connection. This would seem to be in keeping with the findings from the literature review of Learning Styles being malleable and changeable. It is therefore likely that similar findings would have been revealed if this element had been incorporated into the design of the research. If no link between career choices and learning style is found,

this research is still beneficial as it analyses learning and its contribution to career choices and opportunities.

Feminist Methodology

The research design, and the interview methods used, draws on feminist research throughout the study. Feminism bases its ideals upon ensuring that sensitivity to gender is considered as an important part of any research. There is no one universally adopted feminist method of research (Kitzinger, 2004). Feminists emphasise qualitative and interpretative approaches (Noaks and Wincup, 2004). They have brought to the fore the realisation that positivist methods of enquiry may be exploitive, and as Noaks and Wincup point out "Feminist theory has been particularly influential in the evolution of qualitative methods" (2004, p.75). This research is primarily focused on the careers of female police officers and I felt it important to consider some feminist principles during the planning stage. Alvesson and Sköldberg, (2000) refer to the many different forms of feminism, each with its own definitions and structures which differ from each other both politically and epistemologically marking an absence of a unified approach. Kelly, Burton and Regan (1994) explain:

"Feminist research focuses on how women's lives are constrained by the actions of men individually and collectively and the strategies girls and women find to resist, challenge and subvert. Studying women's lives as a feminist means that male dominance, masculinity and men are always part of the research" (p.33)

The rationale of this research is to view female officers' experience from a different perspective. It was intended to discover whether learning styles exerted any influence in the career decisions of women, rather than concentrating on how the progression of women may be constricted by others.

Oakley (2000) cautions against ignoring the fabric of women's experiences, and I recognised that those influences must also be examined within the data. Maynard (1994) describes the debate enfolding feminist research as originating with its focus on method, which has developed and broadened to encompass further aspects of research practice, concentrating more on critical reflection. This is clarified by Smart (1995) who explains the most prevailing schools of feminist thought:

• Feminist Empiricism

Most prominent in the 1970's and 1980's. She describes it as epistemologically conservative by more recent developments, seeing objectivity as sexism.

• Standpoint Feminism

Described as a more scientific feminism, striving for policy statements encompassing ALL women, giving priority to academic knowledge, not being sympathetic of the masculine.

• Postmodern Feminism

Rejection of a Marxist approach, retaining some of its values. Whilst acknowledging that women are not always the powerless ones, recognising that use of power can however be gendered. Is a reconsideration and theorisation of what we think we know.

However, combinations of the different approaches do occur, particularly in qualitative empirical research (Alvesson and Sköldberg, 2000). Heidensohn (1992) points out that an approach may incorporate elements of more than one approach.

Feminist methods are generally qualitative, based on in-depth interviews and examining the fabric of women's experiences. They present a challenge to the stereotype of women as weaker, and question a status quo where those who hold power may be reluctant to relinquish it.

"Feminism has a lot in common with Marxism as a political movement in that it is based on the assumption that women are an economically exploited group who nevertheless view their exploitation as being natural and normal because men control the media and the educational system (Travers, 2001, p.133)

Heidensohn (1992) refutes the assumption of some feminists that women are always assumed to be the less dominant when compared to their male counter-parts. Interestingly Silvestri (2003) refers to the lack of any noteworthy "feminist' presence in policing" (p.169), which she suggests may be attributable to the national decline of the visible feminist movement. She also proposes that women leaders in policing find the price of being an "active gendering agent" (p.161) too high, but suggests that until more openness to feminist ideas exists change will not be forthcoming. The influences of feminist thinking are interwoven into the methodology employed within this research.

In the present climate of encouraging the Continued Professional Development of officers and staff, opportunities are more readily available than ever before for them to proceed into Higher Education. This professionalization of the service offers opportunities to women to become better qualified thereby enhancing their professional status. Human Resource Departments are tasked with reviewing career and training opportunities, and it is becoming increasingly difficult for officers to be marginalised or blocked from advancement with the advent of procedures and diversity policies, intended to ensure fairness. The modernisation of annual development reviews against specific National Occupational Standards (NOS) ensure that officers are collating their own evidence of competence rather than relying on a subjective view of their ability by supervisors. These changes have been slow to devise and implement but should become more effective as the service becomes increasingly familiar with them.

5.2 Ethical Issues

Research is not the same as covert police investigation, but takes place in a climate of openness, agreement and cooperation. Oppenheim (1994) observed that;

"The basic ethical principle governing data collection is that no harm should come to the respondents as a result of their participation in the research." (p.83)

The welfare of the respondents was a priority, and the potential types of harm that could ensue were considered psychological, social or even legal. One concern was that a respondent might disclose something of a disciplinary or criminal nature. As a serving police officer I was duty bound to act if a criminal offence was disclosed to me, making it difficult to maintain confidentiality. I stressed this to interviewees prior to the interviews. I protected the identity of interviewees, acknowledging that they were giving sensitive information that might adversely affect their future progression opportunities. Prior to each interview I sent a letter with an ethical statement (APPENDIX D), and also discussed it with them prior to each interview proceeding. I was alert to potential researcher bias (Gillies and Alldred, 2002).

Edwards and Mauthner (2002) adopt a feminist approach referring to ethics as "the moral deliberation, choice and accountability on the part of researchers throughout the research process" (p.14) or how the researcher deals with conflict, rather than trying to

eliminate it from the start. They argue that ethics cannot be limited to codes of practice, being situation specific. Ethics on this view is a process of fairness and care and not simply a list of restrictions which might impede ethical research unnecessarily. The research can move in unexpected directions (McNamee, 2002) far exceeding that anticipated in the research design. Foster (1999) critiqued the current BERA (1992) ethical guidelines as not allowing for competing values in ethical judgements, and acted as a catalyst for the guidelines to be revised in 2004.

House and Howe (1999) argue that values are not "subject to rational determination" (p.xiv), being "matters of choice not grounded in rationality" (p.5). They argue that values are subjective and that "value judgements have no cognitive foundation" (p.xvi). They demand the analysis of value statements and not just accepting them (p.10-12): They further argue against a "value-neutral" (p.133) objectivity.

Permissions/Access

The Police Service is a disciplined hierarchical organisation, and the permission of the Chief Constable of the force in question is essential in order to conduct any type of research. Prior to the research commencing this was sought, and permission granting access was obtained from the Chief Constable. This was conditional on the anonymity of the Force being maintained.

An application for a national Police scholarship; the 'Bramshill Fellowship' was also submitted, and approved, and with my being granted the Fellowship by the National Police College at Bramshill. The Force in question partially funded the research.

Prior to the research, permission was obtained from Dr Peter Honey to use the Learning Styles Questionnaire. All research subjects were volunteers, and gave their permission to be included in the research.

Confidentiality and Privacy

The police force insisted on anonymity and is therefore not named. The first data set, relating to learning styles on entry to police service, was completed voluntarily during a training course. Participants were reassured that their names would be kept confidential and anonymous. Interviewees' identities were hidden using pseudonyms. The respondents were asked questions relating to instances of discrimination or blocking of

opportunity they may have experienced. This had the potential to be a very sensitive area as it could uncover instances of unfair practice.

The LSQ was considered to be educative in that it would help the respondents recognise their preferred learning styles, which could be helpful to them in learning situations. The completed questionnaires were placed into sealed envelopes and returned to me. The respondents were able to complete the questionnaire in a controlled environment where they had a good degree of privacy. Trainees were fully informed both by their trainers, and in writing of the purpose of the research, and that they could provide their names if they were happy to be contacted again. They were also assured of confidentiality, in that in no way would the information provided be attributable to them.

The completed questionnaires were all allocated a consecutive number. The information from the questionnaires was entered onto a database created specifically for the task, and each questionnaire was identifiable only by its number, thereby ensuring anonymity (Cohen et al., 2000). The database was protected from unauthorised access by means of a password, and the questionnaires were stored securely.

Informed Consent

Informed consent is "the requirement that human subjects be informed of the nature and implications of research and that participation be voluntary" (Homan, 2002). Miller and Bell (2002) express concern that true consent cannot be obtained unless the participants are fully aware exactly what they are agreeing to, and where participation begins and ends. This is a valid concern and a difficult area to cover fully and comprehensively with each participant. The view that was adopted was that it was to be covered verbally and in writing using an ethical statement. Miller and Bell (2002) express concern regarding the increasing pressure exerted by ethics committees to obtain written consent from participants, highlighting the difficulties in possible alienation of the subject by such an approach (p.65). Although it was recognised that this may alienate some participants, it was decided that it would be preferable for them not to partake in the in the research if they have any reservations as to ethical issues. Noaks and Wincup (2004) refer to the difficulties of a completely transparent approach as a potential threat to validity. The respondents may be more defensive or unwilling to reveal anything of a potentially sensitive nature. This is a concern which it is hoped was over come through reassurances of confidentiality and anonymity.

These concerns also raise the question as to the precise meaning of informed consent. Does informed consent include reading and commenting on transcripts? My view on this occasion is that it does not. Feminist researchers advocate the renegotiation of consent throughout the process, together with establishing a rapport with the interviewee (Miller and Bell, 2002; Oakley, 1981): however care needs to be taken as there is a fine line to be drawn between creating a good rapport and "faking friendship" (Duncombe and Jessop, 2002, p.111).

This research is overt and no research participant should be harmed by it. All subjects were informed of the purpose of the research and the procedures to be followed, and their informed consent was obtained (BERA, 2004). The interviews commenced with a discussion of any potential risks or discomforts and given an assurance that participants were free to withdraw consent and discontinue participation at any time, and that confidentiality will be maintained and anonymity assured (Cohen et al., 2000, p.51). As previously discussed there is always the possibility that there may be unexpected outcomes from the research which do not relate to the stated aim and objectives, and this was discussed with interviewees prior to gaining their agreement to participate.

5.3 Reflexivity

As a means of understanding changes in my own perspective as the research progressed, I arranged to be interviewed by three critical friends at an early stage to give before and after information. On reviewing the tape much later near the conclusion of the study I found that the tape provided a unique record of my position within the research, and how I intended to proceed. I stated that I wished to establish whether things outside of cultural and sociological influences which I termed 'ingredient X' impacted on the career choices of female officers, most particularly whether learning styles were a factor in career paths and choices. I stated that I had begun to wonder whether people with particular learning styles were drawn to particular job roles. I had observed that a lot of police trainers had similar learning style preferences which had started this line of thought. I had also developed an interest in the research on women police, and had emerged feeling that there may well be more to why females found themselves in certain roles. There was no previous research on this area, and I wanted to find if there was a correlation between role and learning style. It was a surreal experience listening to the tape much later, much of the tape did indeed concentrate on

my proposed methodology rather than my position within the research. However on listening to it several times it is clear that as a female officer I felt compelled to attempt to find my 'ingredient X', and was determined to either prove or disprove any learning style connection to job roles, with the hopes of uncovering any other influences on the careers of female officers. It is interesting listening to yourself so much later when coming to the end of the process and hearing the determination in your own voice to investigate something of so much importance to you. I thought that my views may have changed somewhat during this time, and found to my surprise that in many ways I still feel the same zeal as at the start.

5.4 Validity

Validity in this study needs to be addressed in a variety of ways, these are intended to 'minimise invalidity and maximise validity' (Cohen et al., 2000, p.104). This research is of a predominantly qualitative nature, supported by a quantitative element. Validity will be addressed by the depth and scope of the interviews (Cohen et al., 2000, p.105). Denscombe (1998) discusses the possibility of the age, sex and ethnicity of an interviewer affecting the interviewee, and their responses. He also acknowledges the difficulties and the limitations as to how this can be overcome. The researcher needs to be cognisant of this possibility but ensure that they allow the interview to flow naturally. Demeanour, accent and dress can also have an effect of the interviewee (Breakwell et al., 1995). As all the interviewees are female this was one less concern. It was hoped that they would be more forthcoming with a female interviewer. The ability of the interviewer may be more important than the gender or other factors. Manner of dress was considered by wearing uniform or plain clothes where appropriate, and mannerisms were monitored. There are very few female officers of a visible ethnic minority group within the force used for the research. At the beginning it was not clear whether any officers from this group would fall within my sample. These considerations were essential, if they were not to unduly influence the process. If there are any effects of which had not come to light, at least they will be consistent for all the interviews by the same interviewer being used throughout. Schedules for semi-structured interviews provide a guide for the general areas of discussion.

Triangulation, a term originating from surveying will be implemented where possible and appropriate (Denscombe, 1998a). Triangulation refers to the validation of data using more than two sources enabling cross checking of results. By combining multiple

methods, and sources of data researchers can hope to overcome any weakness or intrinsic biases, and the problems that come from single method, single source studies. The intended sample range is broad and will be triangulated as follows:

- □ New Recruit Officers within their first two weeks of service.
- Junior Officers with approximately 14 months service.
- □ Experienced officers with a range of police service between 2 and 29 years.

The methodological triangulation using: -

- Qualitative questionnaires
- Interviews
- □ Reflective Diary, containing observations, reflective comments, meeting records.

Time triangulation: The study will revisit participants on one further occasion. This will afford the opportunity to establish any changes in learning style or aspirations.

A key consideration affecting validity was not imposing or projecting my values and beliefs onto the sample. As a female officer of over 25 years service at the time of the interviews I hold strong views regarding the role traditionally fulfilled by the female officer. This I acknowledge could potentially bias my findings. Bell (1993) suggests that bias is always present, but recognition of this possibility is important. I adopt a phenomenological approach of bracketing out (Cohen et al., 2000) my own assumptions and interpretations which may otherwise influence my data collection and analysis. To achieve this I reassessed my findings, particularly in respect of the interpretation of the semi-structured interviews. Objectivity within the research has been my endeavour throughout. This will be discussed below.

5.4.1 Validity of L.S.Q.

The Honey and Mumford LSQ was used as the analytical tool throughout the research. It, together with Kolb's Learning Style Inventory are widely used in the U.K. (Coffield et al., 2004). The LSQ was utilized to determine the preferred learning style of participants. Several other analytical tools were considered and discounted. The LSQ has been found to have face validity (Mumford, 1994; Rae, 1986; Allinson and Hayes, 1988). Mumford and Honey (1992) caution against using the LSQ as a selection rather than developmental tool highlighting that there has been no data to support its validity

and reliability for this purpose. It was designed as a tool to promote discussion in the hands of an experienced tutor. Fung et al. (1993) supported the predictive validity of the LSQ. Allinson and Hayes (1988) believe it would be unwise to discount the predictive validity of the LSQ, albeit in their later study (1990) they found evidence of validity was limited, construct validity was suggested from the results, but no evidence of predictive validity of the LSQ was found.

5.5 Reliability

In naturalistic research the reliability is derived from the honest and transparent approach supported by an experienced and knowledgeable data collector. Questionnaire reliability hinges on whether another researcher would obtain the same results if they were to use the questionnaires and interview schedules with similar or identical groups (McNeill, 1985, Denscombe, 1998a).

In semi-structured interviews the skill of the interviewer affects the quality of the data. Every effort was made to minimize anything which would adversely affect reliability. Reliability was also addressed in accurately recording the views of the informants, for this reason every interview was tape recorded and once transcribed by a typist were checked against the audio tape for accuracy.

5.6 Generalizability

Robson (1993) outlines the following threats to the generalizability or external validity of any research:

- 1. Selection. Findings being specific to the group studied.
- 2. Setting. Findings being specific to, or dependent on, the particular context in which the study took place.
- 3. History. Specific and unique historical experiences may determine or affect the findings.
- Construct effects. The particular constructs studied may be specific to the group studied.
 (p.73).

I will address each point in turn: -

Findings being to the specific group studied.

This point is particularly relevant to this manner of study. As a researcher, I was particularly interested in the careers of female police officers. I wished to investigate whether there was a link between individual learning styles and the careers of female officers. This would ultimately raise the question of whether the eventual findings would only apply to the group being studied. If a link is proved between the two, I do not believe this would only be applicable to female officers. If a link is discovered it would surely indicate the possibility of a link within other hierarchical professions.

Setting. Findings being specific to, or dependent on, the particular context in which the study took place.

The study takes place within a medium sized police force situated within England and Wales. The initial data gathering involves the use of qualitative questionnaires to new recruits. The data gathered from this group deduced details of their learning styles and aspirations at a stage prior to them becoming immersed into the police culture. The study is not therefore in any way dependent on the particular context within which the study took place. It could have easily been conducted in a different area or within a completely different profession.

History. Specific and unique historical experiences may determine or affect the findings. This could have potentially been a problem. The police culture is a strong one, and historically female officers were allocated specific duties relating to women and children. Since the introduction of the Sex Discrimination Act (1975) such allocation of duties became unlawful, only female officers who joined the service before this date would have worked under such restrictions. This is discussed more fully within the literature review.

Construct effects. The particular constructs studied may be specific to the group studied.

The construct validity of the LSQ has already been discussed (section 2.4.3). Career aspirations of any group could be dealt with in a similar or identical manner to the methodology adopted within this study, although the career aspirations within the police service are specific to that profession. At this point in the research no differences in practice or culture have emerged that are different from any other police force.

5.7 Data Analysis issues

The analysis stage of the study was very time consuming. Robson (1993) points out that when methods generating qualitative data form a substantial, aspect of the study then "serious and detailed attention" (p.371) needs to be given to the analysis. This proved to be the case and a great deal of time and attention was required in analysing the data.

The analysis of the data from the questionnaire phase was examined using the database. It was discovered that although useful that I needed to transfer the data onto worksheets which allowed much more flexibility with manipulation of the data when looking for trends. This had not been foreseen at the commencement of the research, but proved to be an effective way of examining the data, particularly for trends in learning styles and aspirations. Spreadsheets allowed me to select all those respondents who had expressed an interest in a particular role for example, then look for trends in learning style preferences, and also allowed me to filter certain information.

5.7.1 Coding Frame: Questionnaires

Miles and Huberman (1994) describe coding as "tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study" (p.56). They go on to outline their purpose as to being able to assist the researcher to

"retrieve and organize ... so that the researcher can quickly find, pull out, and cluster the segments relating to a particular research question... construct, or theme." (p.57)

I devised an alphanumeric coding frame for the data generated from the questionnaires. The purpose being to simplify the data for analysis purposes (Robson, 1993). This was achieved by firstly considering the research question, and the design of the questionnaire which had been formulated to obtain data. Also, the responses which were expected to come from specific questions, specifically regarding previous occupations, managerial experience, and most importantly career aspirations. My priority was to achieve consistency within the coding.

I devised a set of codes for individual learning style scores and for the closed questions such as age, length of service, and sex. Codes were allocated for non-response, and responses such as 'not sure' or 'not known'. All questionnaires were checked for accurate answers prior to coding. Inaccuracies could affect the validity of the data.

The next more involved phase involved devising codes for the responses elicited using open questions. This started by reading through over fifty of the completed questionnaires to acquaint myself with the data, prior to coding. Where possible I made the numerous codes fall into more general themes for ease of analysis.

Robson points out that 'This process inevitably involves some loss of information' (1993, p.252). I am conscious that the coding frame must stand up to scrutiny (Cohen et al., 2000). Validity was checked by asking an independent critical friend to code some questionnaires, which were then compared against my own interpretation:

"so that they can be applied consistently by a single researcher over time and multiple researchers will be thinking about the same phenomena as they code" (Miles and Huberman, 1994, p.63).

5.7.2 Coding of Interviews

Neuman (1994) refers to coding qualitative data as being "an integral part of the data analysis" (p.407). I concur with this view, and found it impossible to decide upon the codes prior to the initial interviews. A decision was reached that once embarked upon this exercise I would be looking for descriptive codes that suggest relationships, causes and correlations. The codes were constantly evolving and it was straightforward to enter codes directly onto the transcript pro-formas which were easily searchable using standard word processing tools. A vignette (APPENDIX H) is indicative of how the transcripts were laid out and coded. The first is a police inspector with 17 years police service referred to as Claire. The second is a Detective Constable with 19 years police service referred to as Diane.

In line with the approach of grounded theory these codes were revised often as the data emerged (Charmaz, 2000), which necessitated revisiting the data many times. I needed to be able to categorize responses without losing the flavour of the data in the emergent interpretative codes. This was a valuable exercise as more themes emerged they informed the subsequent interviews, and I was more alert to certain responses as they occurred. This allowed further probing during the actual interviews. As new codes emerged it was important to go back over previous interviews to compare them for any similarities.

5.7.3 Grounded Theory

Glaser and Strauss (1967) explain that grounded theory is "the discovery of theory from data" (p.1) and is "derived from data and then illustrated by characteristic examples of data" (p.5). They stress the importance of the theory emanating from the data itself and not from any "priori assumptions" (p.6). The main advantage of qualitative inquiry grounded in actuality is a tolerance of ambiguity. A qualitative study is better able to allow the researcher intuitive freedom in the analysis, where the researcher can interpret the data, allowing for the possibility that different researchers may reach divergent conclusions from the same data (Denscombe, 1998). Described by Denscombe (1998) as where "the researcher embarks on a voyage of discovery" (p.215) which is not dictated by a strict set of rules, or assumptions. Thomas and James (2006) argue for a relaxation of strict process or what they describe as a "set of procedural accompaniments" (p.773) for grounded theory to liberate discovery rather than inhibit it. They push for a reconsideration of what is meant by the terms *grounded* and *theory* and call for a less positivist approach. Oakley (2000) refers to

"a sensitivity to interviewees' concepts and forms of thought; a concern with grounding women's experiences in the material circumstances of their lives" (p.48)

I believe that research into the career patterns and learning styles of women's working lives needs to be essentially linked to their everyday lives, and experiences. To ignore other influences exerted on women could jeopardise the validity of the data obtained. This was to be achieved by constant comparison of the data, searching for themes emerging from data.

Charmaz (2000) explains that

"grounded theory methods consist of systematic inductive guidelines for collecting and analyzing data to build middle-range theoretical frameworks that explain the collected data" (p.509)

Researchers adopting a grounded theory approach are constantly analysing and developing their interpretations to enable them to focus further data collection, using what (Charmaz, 2000) describes as "a set of flexible strategies" (p.513).

These could best be described as:

- a) Simultaneous collection and analysis of data,
- b) A two step coding process,
- c) Comparative methods,
- d) Memo writing aimed at the construction of conceptual analysis,
- e) Sampling to refine the research emerging theoretical ideas, and
- f) Integration of the theoretical framework (Charmaz, 2000).

Grounded theorists follow a series of stages in the development of theory, where they look at what Charmaz (2000) refers to as "slices of social life" (p.522) within "moments in time" (p.522), rather than total immersion into a specific community. The first stage, coding has been discussed. The second stage is dealing with the data, often this is achieved by what is referred to as memo writing. The purpose of this is to provide the researcher with a method of organising their thoughts whilst developing theory.

I used the emerging codes and categories which were useful for reminding me of the ongoing themes coming out of the research. I found it useful to take a copy of them with me into the subsequent interviews as additional guidance, it helped me to "pinpoint the fit and relevance" (Charmaz, 2000, p.519) of the categories. This enabled me to introduce questions to further explore these areas, so although this was not strictly what would be referred to as theoretical sampling – it did allow me to gather further data relevant to my on-going findings. This allowed further definition of the categories and their properties, using a constant comparative method. Rather than keep traditional memo's I found it more productive to create word documents which I populated with data from the interviews, the coding, and my interpretation. I often found that a refined version of what I wrote in this manner found its way into this thesis. My concern was to avoid strict adherence to a set of rules relating to grounded theory or what Thomas and James (2006) describe as "an unqualitative approach to qualitative inquiry" (p.780). They propose that a

"preoccupation with method (and not just in grounded theory) makes for mirages of some kind of reliable knowing, and this in the end makes us almost more concerned with the method than the message" (p.791).

I therefore adopted a thorough approach to the research taking some guidance as outlined above from grounded theory.

As previously stated, the participants were assured that all information supplied would be treated in confidence, and anonymity guaranteed.

5.8 Interpretation of Data

The care with which the methodology was designed, and the data analysed was to ensure that the interpretation was neither quixotic (naively idealistic) or eccentric (balanced) in nature.

Several issues had to be taken into consideration as to how the data was to be managed. I deliberated upon the use of computer software programmes such as SPSS (Statistical Package for the Social Sciences) and NUD*IST. If using NUD*IST Units of coding have to be decided in advance (Barry, 1998) which was impractical for the approach I wished to use which was one of developing the codes and themes as the research progressed.

One concern in using any such programmes was the difficulty or otherwise of becoming adept in their use, and in being confident in ensuring that the correct parameters were being set. Any computer programme is only as good as its programming, whether that programming has been set by its designers or the user. A further concern was that of a feeling of separation from the data by allowing a computer programme to take of some of the task of analysis, rather than taking ownership of this process as the researcher. On balance I decided that I would feel more comfortable with this research if I undertook all the analysis myself using a combination of word processing, spreadsheets, databases, and hand drawn diagrams or flow charts. These methods allowed me the flexibility to follow trains of thought and emergent patterns or trends as they occurred.

5.9 Anonymity and Referencing of the interviews

To maintain anonymity all names have been changed. Each interviewee has been referenced using a pseudonym, the interview number, the number of years the participants have served as Police Officers, and their rank: thus eliminating the need to constantly put each quote into context. For example a Detective Constable pseudonym Cathy who was the fourteenth interviewee, and who had 5 years service as a police officer would be referenced as (Cathy/Int 14/5/DC). The glossary contains an

explanation of the various ranks. Where place names have been mentioned by the participants they have been edited out and replaced, this is indicated by XXX.

The research was sensitive to gender issues, and was designed to capture the career experiences of women within the police service, particularly within the participant interviews.

The next chapter will turn its attention to the influence of learning styles on the careers of female officers.

CHAPTER SIX

The Influence of Learning Styles – Data Analysis

6.0

The overall aim of this study was to establish the nature of the relationship between individual learning styles and the career aspirations of female officers. This Chapter will examine the links that have been drawn between learning styles and career choices and aspirations. The analysis will pursue the issues emerging from the literature review and data analysis, and will examine the statistics available from the force in which the research was undertaken.

6.1 Questionnaires

Questionnaires to the entire intake of new recruit police officers, and officers with approximately 15 months service resulted in returns from 177 new recruits, and 109 officers with 15 months service (henceforth will be referred to as 'junior officers'). Of those respondents 51 of the new recruits, and 23 of the junior officers were female. These also completed the Honey and Mumford LSQ. The officers indicated a wide range of interest in a variety of roles.

Officers could indicate more than one area of interest if they so wished. About a quarter of the new recruit respondents did not record any particular aspirations, or were unsure of the direction they wished their career to take. This contrasted with the findings of Gaston and Alexander (1997) who found that with more experienced officers, one in three women remained undecided compared to one in seven men. Alexander (1995) also found women to be more likely to be undecided upon any particular role. My study found the levels comparable for both male and female new recruits. The findings were slightly higher for females than their male counterparts for the junior officers where 12.7% of males and 17% of females were unsure of their career aspirations. The findings relating to females were still considerably lower than those of Gaston and Alexander (1997). A quarter of the new recruit participants were unsure or undecided in any career preference, with similar findings for both male and female. This indecision would appear to be an opportunity for specialist departments to gain the interest of officers as new recruits to the service by providing more information regarding the roles and responsibilities involved.

Table 3

Career Aspirations - New Recruits			
Early Career Aspirations	Percentage of Males	Percentage of Females	
General Duties	4.80%	8%	
CID Departments	17.60%	16%	
Community/Family Support	1.60%	14%	
Dog Section	12.80%	0%	
Firearms	19.20%	8%	
Intelligence/Surveillance	1.60%	2%	
Mounted Section	5.60%	4%	
P.P.T.	1.60%	4%	
Public Order	0%	0%	
Scenes of Crime	0%	4%	
Supervisor	7.20%	6%	
Traffic Dept	19.20%	10%	
Training	4.80%	2%	
PSU/Sub aqua/helicopter	6.40%	4%	
Departmental support	12%	0%	
Unsure	23.20%	26%	
	n = 126	n = 51	
n = 177			

The questionnaires were examined and data extrapolated relating to the career aspirations of both male and female new recruits (see Table 3).

In order to illustrate this, the data was converted into a chart (Chart 1 – see below). This allows a more visual representation of the similarities and differences between male and female officers' aspirations. Duties involving serving communities were far more popular with female officers than their

male counterparts. This could reflect the perception of the gendered conceptions of particular types of work.

Firearms, Traffic, C.I.D. and the Dog Section duties were the most popular choices with male officers, whereas the top four most popular choices for female officers were C.I.D., Community, Traffic and General Duties. A similar level of interest was shown by both male and female officers in the Criminal Investigation Department (C.I.D.) which is similar to the findings of Gaston and Alexander (1997).

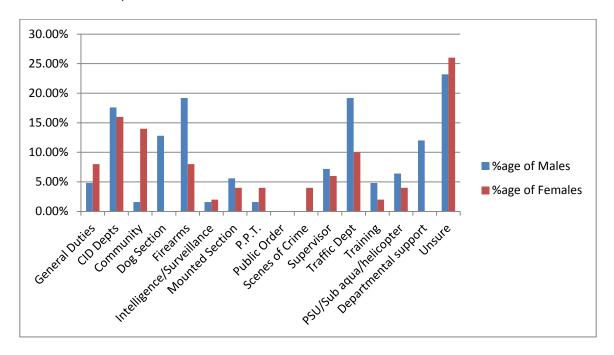


Chart 1- Career Aspirations New Recruits

As can be observed no females expressed an interest in the Dog Section or Departmental Support duties which were more popular with male officers. None of the officers expressed an interest in Public Order type duties. The interest expressed in the Mounted Section was more evenly distributed between males and females. This is not reflected in the actual officers performing the role within the force in question, of which 78% were female. This is a fairly recent development both in this force and the trend is also reflected within other forces (Giordmaine, 2007).

6.2 Learning Style Preferences and Aspirations

The data from the questionnaires were also examined to look for any trends in learning style(s) associated with particular aspirations.

6.2.1 Firearms and Learning Styles

19.2% of males and 8% of female new recruits indicated an interest in becoming firearms officers. It was found that all the females who expressed an interest in firearms were high Activists (Very Strong and Strong). All but one of the males had between Very Strong to Moderate Activist, although it was noted that none of the males had Very Strong preferences for either Theorist or Pragmatist. At this stage Activists appear to be more likely to be interested in this Department.

Upon examining the questionnaire results from the junior officers it was found that the findings were further supported. Of the 23 officers who expressed an interest in firearms, 16 (70%) had Activist as their sole or one of their preferred learning styles. Of these officers 23% of males and 17% of females now expressed an interest in the Firearms Department. The interest from female officers had more than doubled when compared to the new recruits. Again, the preference for either Theorist or Pragmatist was low.

6.2.2 Dog Section and Learning Styles

No females chose this Department. The lack of interest in the Dog Section by female new recruits is reflected in there being only 3% of the total number of dog handlers being women in the force in question. 12.8% of males indicated an interest in becoming a dog handler. All the males who chose the Dog Section had results between Very Strong to Moderate Reflector. Of the junior officers again no females indicated any interest in the Dog Section. A similar percentage of males to the first cohort expressed an interest in this department, of which two thirds had Activist as one of their preferred learning style, with Reflector being the next most dominant style.

6.2.3 Traffic and Learning Styles

19.2% of males and 10% of female new recruits indicated an interest in the Traffic Department. This is one of two departments favoured, and in the top four for both males and females. All the females had results between Moderate to Low in the Theorist learning style, and Moderate to Very Low results in the Pragmatist learning style. Whilst no clear learning style preferences could be drawn it may be likely that female Activists and Reflectors are more drawn to this Department, or those who have least preferred preferences in Theorist and Pragmatist. The male new recruits emerged with different results. All but two of the males were Moderate to Very Low Activists, with the same results being found for Reflector. 72% of the males had Pragmatist as one of their most preferred learning style, all but two emerging with a Moderate to Strong preference for Pragmatist.

A quarter of male junior officers and only one female junior officer chose the Traffic Department, but she also had a result which was low for Theorist and Pragmatist Learning style. The preference for Pragmatist learning style was not supported within

the results for the male junior officers with the predominant style emerging for this group as Reflector.

6.2.4 Departmental Support and Learning Style

No females, but 12% of males indicated an interest in these types of duties. All the males had results between Very Strong to Moderate results in Reflector learning style, thereby indicating those with a preference for the Reflector learning style may be more likely to be interested in these duties. From the junior officer sample, only one female chose this type of duty. 13% of male junior officers from this sample group expressed an interest which is consistent with the earlier results. The Reflector style was once again prominent, together with Activist for this group.

6.2.5 Community, Family Support and Learning Style

Just over 1% of males, and 14% of female new recruits indicted an interest in Community type duties, including Family Support type duties. This was one of the top four choices for female officers. All the females who expressed an interest in Community duties were between Strong to Moderate Activist, and Very Strong to Moderate Reflector, with Moderate to Low Theorist. The males had the same results in relation to the Theorist learning style. Here it would appear that for females Activist/Reflectors with a lower preference for Theorist may have a preference for these types of duties. Those male participants also had a low preference for Theorist.

From the junior officers sample 2% of males and 39% of females in this cohort expressed an interest in these types of duties. This found a much higher percentage of females than from the new recruits being by far the most popular choice for females. They were again predominantly Activist/Reflectors supporting the earlier results. The pattern for a low Theorist preference was however not supported.

6.2.6 Comparison of Career Aspirations

No further discernible patterns were evident in relation to learning style preferences and any other Departments. The results from the second cohort of junior officers were compared to those from the new recruits. Where trends had been noted relating to learning styles from the first cohort, these were then further examined to look at the data in relation to those findings. The C.I.D., traffic department and firearms departments remained some of the most popular choices for males, increasing in

popularity with the male junior officers. The dog section and departmental support remained at similar levels of popularity with males. The most notable difference between the male and female junior officers is to be found when examining the results in respect of the traffic department, and community and family support duties where the gap between male and female responses had widened even further from the results gained from the new recruits. The remaining departments are more equally popular with both males and females.

From these results it would be expected therefore to find a proportionate level of females in those remaining departments. For females the interest in remaining in general police duties or uniform patrol dropped for the officers with more service, whereas it remained constant for the males. It was also noted that there was a fall in the interest of female junior officers looking to promotion, and those interested in the traffic department. Public order duties remain unpopular with females. No female junior officers expressed any interest in intelligence or surveillance duties, or in training. There was a large rise in the popularity of community and family support duties which more than doubled from the interest shown by the new recruits, the most significant change noted between the groups. The interest shown by females in the firearms department has also more than doubled, and the popularity in the C.I.D. had also increased. The top three career aspirations for female junior officers being community and family support, C.I.D. and the firearms department. For both males and females the number of those officers who were unsure of their career aspirations had dropped.

6.3 Interviews

The female police officers interviewed ranged in rank from Police Constable to Chief Constable, ranging in service between four and twenty nine years.

6.3.1 Early Career Aspirations

None of those female officers interviewed had clear career aspirations on joining the service. Some admitted to having an idealised view of the service often gained from friends or family who were already serving or retired police officers. Most found that they naturally progressed from one role into another as their level of experience and skills increased. This was often influenced by their levels of confidence to apply for new posts, or levels of satisfaction with their current role:

"I hadn't actually planned out my career, but I actually sat and reflected on this ... but I thought this isn't my route to lifetime fulfilment." (Elizabeth/Int 18/29/CC)

A common theme which emerged was a lack of any kind of career planning, most indicated their careers had developed due to circumstance.

6.3.2 Themes

Several themes emerged from the interview data. The intention of this chapter is to examine any links found between some of the main themes emerging from the data and learning style preference(s), thereby creating fresh insights. The top preference(s) were established for each interviewee, together with the bottom preference(s) which were considered equally important. The table below (Table 4) shows the total number of interviewees indicating how many of the interviewees had each learning style as their most preferred and least preferred style. This was accomplished using the information from their LSQ questionnaires which categorised their marks into the following preferences: Very Strong; Strong; Moderate; Low and Very Low (Honey and Mumford, 1992). This was then further broken down to show how many had that style as their sole most preferred style (e.g. not as a joint or shared preferred style) and sole least preferred style.

Table 4

Interviewees Most and Least Preferred Learning Styles				
	Number of Interviewees Most Preferred Style(s)		Number of Interviewees	
			Least Preferred style(s)	
Learning Style	As one of top	Sole most	As one of least	Sole least
	preference	preferred	preference	preferred
		style		style
Activist	12	6	3	1
Reflector	7	2	8	4
Theorist	5	1	6	3
Pragmatist	6	1	4	3
				n = 18

The data were then examined to enable comparison with the main themes which had emerged from the interview analysis, a discussion of which follows.

6.3.3 Challenge and Excitement and Learning Styles

The need for constant excitement or ongoing challenges within the working environment was mentioned by most of those officers interviewed. Only two of those females interviewed did not mention this in relation to their interest and motivation levels. This is clearly an important element for most female officers even if it is not something that immediately comes to the fore early within their period of service. Some of those offering their views when interviewed perceived what they described as some of the more 'action' type roles as being viewed as being more exciting. It may have been expected to discover a correlation to those scoring highly on the Activist style.

Contrary to their expectations no link to any particular learning style was found, but was found to be of importance to all learning style preferences. This may be accounted for by the variety of descriptions of what the officers considered to be exciting and challenging:

"if there's a problem it's nice to try and find a solution. And I think it's quite exciting if it's not straight forward, it's a bit of a challenge and you've got to search a bit deeper and it keeps the interest for me really, I think." (Natalie/Int 16/4/DC)

Several referred to the undertaking of a new role utilizing new skills as providing the excitement that they craved:

"I'd been on traffic for ten years so you become, I knew what I had to do, I knew what was expected of me and I did what was expected of me but it became a little bit run of the mill, and although it felt very safe it wasn't challenging anymore 'cos I'd been there ten years and I wanted a new challenge and I looked around for something completely different and looked at child abuse. I had no background, no Detective background ... I was successful and thoroughly enjoyed the new experience and the new learning curve that it took me down." (Julanne/Int 4/25/PS)

"I think I'm a bit of a schizophrenic really because there's always the inner voice ... I do like new experiences ... and I suppose in hindsight even though some of the career path has been forced upon me I've had a real chequered career and I mean it's certainly opened my eyes ... a learning curve." (Kathleen/Int 8/26/DS)

Some of those interviewed even alluded to their consideration of resigning from the service should the opportunity for working and experiencing stimulating and challenging new roles disappear:

"People complain that I don't last longer than 2 years in any job, I get itchy feet, I've got to move on. I managed to last as a sergeant four or five years in XXX, but it does come round regularly. I look at people in the same job, shift work or 9 to 5 for 30 years and I think blinking heck. If I thought that I was going to be doing that for the rest of my life I'd go, I'd be out of there." (Claire/Int 3/17/Insp)

Even Chief Constables are not immune:

"I was somebody who got bored. I mean if you look at my career history I didn't tend to stay anywhere more than about two years." (Elizabeth/Int 18/29/CC)

The recent Review of Policing by Sir Ronnie Flanagan has recommended radical changes to the way the service operates including the possibility of reducing officer numbers and having more work undertaken by civilian staff (Taylor, 2008). This will inevitably result in fewer opportunities for officers to specialise and diversify, and could ultimately affect retention figures.

6.3.4 Boredom, itchy feet and Learning Styles

This was a common theme, over half of interviewees referred to getting 'itchy feet' or being effected by boredom inducing a need to move on within their career. Activists, Reflectors and Theorists were fairly evenly distributed across both those who did and did not refer to the itchy feet syndrome. All but one of those with a preference for Pragmatist mentioned this phenomenon. Boredom was identified by several of those interviewed as being a problem:

"I get bored very easily once the novelty has worn off, my enthusiasm tends to die down. I want to try something new, but the danger of that is that I tend to overload myself ... I like to have control." (Margaret/Int 2/20/PS)

Others mentioned repetition as a problem which is to be overcome:

"I can get bored, so I suppose the when you are on top of the organisation you have to keep repeating stuff which I find boring, so I have to find ways of reinventing things." (Elizabeth/Int 18/29/CC)

Another mentioned her low boredom threshold which could be alleviated by the excitement of investigating serious incidents:

"I get bored easily so, you know, we can have an armed robbery which is really exciting, we are looking for the suspect, we don't know who it is, you know, and up there getting involved, trying to deal with it all and loving it and then if days go on where we haven't found them ... the excitement goes down." (Natalie/Int 16/4/DC)

Another explained how she feels it would be impossible for her to stay in the same department or performing the same duties for any length of time:

"You always continue to learn wherever you are but I do get fed up and I've got to find something different ... I do get really really bored" (Kathleen/Int 8/26/DS)

The stimulus that working under pressure provides is important in maintaining motivation levels:

"I always seek to do something different, after about 18 months I've got to do something new and if I'm not working under pressure I'm not happy ... I think I do feel after about 18 months, 2 years, if something new hasn't come along. If I'm in the comfort zone, where I don't feel like I'm under pressure for at least half the day then something has got to give and I've got to do something else." (Stephanie/Int 12/18/Det Supt)

Deirdre whose results indicated she had a moderate but equal preference across all four learning styles felt differently regarding how long she has stayed in any one particular role:

"I invariably stayed relatively a number of years within each of the roles. But it is something, because I do like to be sort of Well perhaps I have got a low boredom threshold, I don't know, but I haven't left jobs because I'm bored with them."

The results would indicated that this is a problem for all learning styles, perhaps with more emphasis on the issue in relation to those with a preferred style of Pragmatist. These results may not come as a surprise when considering the Pragmatist preference for wishing to try out new ideas in practice

In discussing the need of individuals for stimulation and change, the inevitable consequences of a failure to address this need leads to boredom. Burke and Mikkelsen (2005) also describe this as career "plateauing" (p.691). Failure to keep pace with new challenges and situations can lead to dissatisfaction. As the police continue to civilianise more roles within the service the opportunities for officers to specialise reduces.

6.3.5 Solving Puzzles and Learning Styles

Several interviewees linked this to investigative skills:

"I like solving problems, the practical end of it, I like puzzles, mechanical things that I can take apart and put together ... The very practical side of it, working out puzzles, probably tying in with the CID side, my interests when I joined the job." (Claire/Int 3/17/Insp)

It may have been anticipated that the influence of the media and popular detective television programmes would have exerted some influence on those within the service towards aspirations of investigating complex crimes.

Over a third of those interviewed expressed an interest in solving puzzles or investigation. Of preferred Learning Styles, Activists and Theorists were fairly evenly represented. Reflectors were more highly represented, but two thirds of the Pragmatists interviewed related to this as an important factor within their careers. All but one of those with a preferred learning style of Pragmatist had made their careers within the Criminal Investigation Department (C.I.D.) and the only one who had not lamented the fact:

"How will I ever get there when I haven't got the experience. That's a big regret for me." (Claire/Int 3/17/Insp).

One of those C.I.D. officers interviewed with a preferred learning style of Activist had her own views on how investigative duties had made her become more of a theorist:

"I've become more methodical and logical with the way I deal with things and that's probably since I've been since I've been in the CID because you have to have a way of looking at things and dealing with things and it has to be in a logical, methodical way, because otherwise you are all over the place and you're confused and you don't know what's going on. So it's taught me to be like that." (Natalie/Int 16/4/DC)

It may be expected that investigative duties are popular across all learning styles, with a particular emphasis on Pragmatist being consistent with their 'does it work in practice' approach.

6.3.6 Making a Difference and Learning Styles

Over a third of those interviewed referred to their need to 'make a difference'. Of those only one interviewee with a preference for Reflector, and one with a preference for Theorist mentioned it. Almost half of the Activists also referred to this as being important to them. Pragmatists were evenly distributed between those who did, and did not make mention of this in their interviews. The two highest ranking officers interviewed were a Chief Constable and an Assistant Chief Constable. Both had their highest (very strong) sole learning style preference as Activist.

Elizabeth a Chief Constable linked her Activist Pragmatist learning styles to her management style in making changes within the organisation as a whole:

"I was just talking with my Deputy before you arrived... he says that as a Chief, I probably know and understand more about what goes on and what makes a nation tick that other Chiefs he knows. And I think I do ... when I went to XXX, the Chief there kept saying "I do strategy, I do strategy" but I couldn't see how on earth you could do strategy if you didn't bungee jump down into the weeds and see what was going on ... it was actually going to floor your strategy, what's the point of strategy if it's actually never going to work? And that's where the pragmatist in me comes, what's the point in doing anything if it's not going to make an impact and difference." (Elizabeth/Int 18/29/CC)

Kay an Assistant Chief Constable also referred to the influences of her Learning Style on her management style:

"I like to cut to the chase, cut the crap, come on let's just get on, if we've got to do it ... let's not worry about policy, let's not worry about what the book says, common sense approach and get on and do it. And sometimes to my detriment, because I can sometimes jump into things a bit too quick, or be seen to be dismissive of other people that sometimes like to be a little bit more measured and steady as you go. And I'm very, very conscious of that, but that it is me." (Kay/Int 17/23/ACC)

"I'm a little bit more conscious, but still sometimes probably railroad people a little bit and that's not very good for somebody at my level but I find it's hard to control sometimes." (Kay/Int 17/23/ACC)

The police service is without doubt a profession that often requires quick thinking and decision making from its staff, and it may be worthy of debate as to the attributes that best meet this criteria. It could be expected that the ability to make a difference may be important across all Learning Style preferences, but may appeal more to those with Pragmatist or Activist preferences.

6.3.7 Luck and Learning Styles

Almost two thirds of all interviewees referred to luck playing a part in the success of their career moves, rather than recognising their own efforts were being acknowledged and rewarded. Two thirds of the Activists questioned referred to luck playing a part in their career. All but one of those with a preference for Pragmatist mentioned this. This would indicate that the concept of luck is most influential to those with Pragmatist or Activist preferences, highlighting the necessity for all officers to regularly review and recognise their own contributions and achievements particularly in relation to career planning. Luck could result from the grasping of opportunity, which is synonymous with the Activist learning style.

6.3.8 Own Locus of Control and Learning Styles

Some of the officers interviewed clearly felt that they held their destiny within their own hands, these interviewees all had Pragmatist as one of their preferred learning styles. Others seemed more influenced or controlled by persons or events. This phenomenon was described by Rotter as either external or internal locus of control (Thompson and McHugh, 2002; Ojha, 2008). Persons with internal locus of control believe that they control their own destiny whereas those who have an external locus of control believe their destiny is controlled by persons or events outside of their own personal control. Just over half of those interviewed were established as being within their own locus of control, believing that they had the ultimate control over their own careers. Locus of control was more evident with Pragmatist and Activist preferences, who were more prepared to overcome blocks to progression.

Johnson and Johnson (2005) refer to social dependence and social independence which they explain:

"Social dependence exists when the goal achievement of Person A is affected by Person B's actions, but the reverse is not true. Social independence exists when the goal achievement of Person A is

unaffected by Person B's actions and vice versa" (p.287)

Some of those interviewed had found themselves in a situation of social dependence with those of higher rank, but choose to remove themselves from these relationships using a variety of means to establish themselves as socially independent in that particular situation. In each case the woman concerned had different ideas of her career direction to that of a senior officer, each used their own tactics to avoid being pressed towards a career decision with which they were unhappy. In each case they found ways of avoiding their career being influenced in a direction they disagreed with, and each woman eventually moved away from the control of a senior officer exerting such unwelcome power over them. The senior officers concerned were both male and female.

6.3.9 Confidence and Learning Styles

Just over half of those interviewed referred to confidence in their own ability as being important within the workplace. Ten interviewees mentioned this, out of which eight of them had Activist as one of their top learning style preference. Almost three quarters of Reflectors did not relate to being confident regarding their own ability, expressing doubt regarding their competence or experience. Two thirds of both the Activists and Pragmatists, but only one third of Theorists did express confidence in their own competence or experience.

Margaret identifies herself as an Activist, she makes the link from the get up and go approach to confidence levels:

"if I wasn't the type of person that I was and the activist that I was. I may not have had the confidence to push myself in different areas, to have a go." (Margaret/Int 2/20/PS)

Kathleen who also has Activist as one of her preferred styles, explained how gaining skills in investigative techniques is transferable to other duties:

"what I have learnt is that if you've got the tools you can investigate anything." (Kathleen/Int 8/26/DS).

Diane a Detective Constable identified herself as a Reflector. She believed that this had held her back in the past:

"it's hard to look at yourself and really analyse yourself and even to be honest with yourself sometimes and once I had identified that I was a bit reluctant to try new things then I thought then perhaps I should be doing this and I did make a conscious effort to try new things and I found that it does work and it's easier than I thought when you try something new. If it works great, if it doesn't work it's not the end of the world, it was still worth a try you know? Because I was always afraid of trying new things in case they didn't work and I'd be seen as a failure but that doesn't happen so it's ok." (Diane/Int 5/19/DC)

Despite the indications that Activists appear to be more confident, even they report some situations which impacted on their confidence levels. Two Activists reported the lack of experienced female role models as problematic:

"I found it really difficult when first promoted as Sergeant because I wasn't quite sure what my role was ... there weren't many women, I would never have revealed that to a male colleague Sergeant, so I didn't feel as if I had anywhere that I could go and say I'm not sure what I'm doing." (Kay/Int 17/23/ACC).

When officers are first appointed as Constables they are allocated a Tutor who is an experienced Police Constable, but the same does not happen in the majority of forces for those who are newly promoted.

These results would indicate that confidence levels are particularly important across the preferences, where perhaps an area for particular attention on improving confidence levels being on those staff with a preferred learning style of Reflector. Honey and Mumford (1992) provided descriptors (see fig. 3) for each learning style and describe reflectors philosophy as being cautious. This has the potential of resulting in individuals who engage in extended reflection worrying too much, a consequence of which being negative to their confidence levels.

6.4 Discussion

The interviewees provided a wealth of other information about their professional lives which I cannot explore here. The results from the analysis of the themes identified from the interviews when examined in conjunction with the Learning Style preferences of the individuals concerned revealed a number of areas of interest. The most notable being:

Activists

Activists are likely to be interested in:

- Firearms
- Community/Family Support

Activist was found to be the most popular Learning Style in the females interviewed, and were also found to be more likely to be within their own locus of control with confidence levels being important to them.

Reflectors

Reflectors are likely to be interested in:

• Community/Family Support

Reflectors emerged as being less likely to express confidence in their own abilities, which could encourage them to remain within what they perceive to be their comfort zone - a safe job.

Theorists

No discernible patterns were noted for a high preference for Theorist.

Officers with a *low* preference for Theorist may be interested in:

- Traffic
- Community/Family Support

Pragmatists

Officers with a *low* preference for Pragmatist may be interested in:

Traffic

Pragmatists were the most prevalent Learning Style preference to express their concern regarding boredom and solving puzzles. It was also found that *making a difference* was particularly important to them. Pragmatists were also found to be more likely to be within their own locus of control, and confident in their own abilities.

From the interviews, the most important issues in relation to their careers for all learning style preferences included:

- Challenge and Excitement
- Boredom Itchy Feet
- Solving Puzzles
- Luck

The need for personal growth within a stimulating environment providing the opportunity for professional maturity, linked with the investigative element of police work was deemed important to many of those interviewed. The mention of luck by officers would indicate a lack of professional career guidance and advice within the service. A quarter of new recruits, both male and female expressed no particular career aspirations, which may reveal an opportunity for specialist departments to market themselves more effectively to junior officers. No new themes or trends were emerging, and it was deemed that the analysis of the data was complete as theoretical saturation had been reached. As predicted by Arksey and Knight (1999):

"Analysis and interpretation stop when time runs out or, ideally, when you see nothing fresh as you read the data, even if you try reading it as you wear an unfamiliar hat." (p.170)

6.4.1 Comparisons of Learning Style Norms

One last comparison was made from the learning styles data obtained from the new recruits and junior officers, and this was compared to the findings of Honey and Mumford (1992) for Police Sergeants and Inspectors. A comparison was made of the average mean of each learning style for all those who participated in the questionnaire phase of the study, and the data provided by Honey and Mumford (1992). Chart 2 depicts the results:

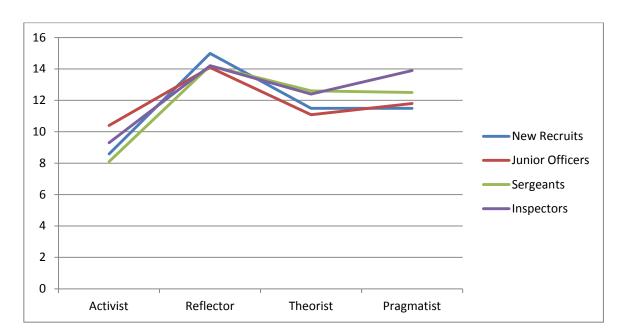


Chart 2 - Average (Mean) Learning Styles Norms

As can be seen there is a convergence on the Reflector scale for Junior Officers, Sergeants and Inspectors, with new recruits having a higher Reflector mean average result. The new recruits also displayed a slightly lower pragmatist average mean. Table 5 provides the findings and comparisons:

Table 5

Learning Style Results (Average Mean)					
	Activist	Reflector	Theorist	Pragmatist	
New Recruits	8.585	14.99	11.49	11.495	n = 177
	Moderate	Moderate/	Moderate	Low/	
		strong		moderate	
Junior	10.405	14.085	11.085	11.8	n = 109
Officers	Moderate	Moderate/	Moderate	Low/	
		strong		moderate	
Sergeants	8.1	14.2	12.6	12.5	Honey & Mumford
	Moderate	Moderate/	Moderate	Moderate	(1992)
		strong			
Inspectors	9.3	14.2	12.4	13.9	
	Moderate	Moderate/	Moderate	Moderate	
		strong			

The results for the new recruits show that overall the average for the Reflector learning style is higher than other results. This may indicate that the police recruitment process,

and assessment centres may favour those applicants who have a higher reflector learning style. From the above data this is not necessarily the 'norm' once accepted as an officer, and it would be of interest to further examine this area more fully. It is also of interest to note the higher norms for both Sergeants and Inspectors on the Pragmatist scales, and the very similar results for both ranks on the Theorist scales both of which were obtained from the results and norms supplied by Honey and Mumford (1992). For both female and male new recruits and junior officers all groups were found to have 'norms' of Moderate in Activist, Reflector and Theorist, and Low preference for the Pragmatist learning style.

The next chapter will consider the conclusions, implications and recommendations from this research.

CHAPTER SEVEN

Conclusions, Implications and Recommendations

7.0

Learning styles are important to individuals as it reflects one's individuality. Mumford and Honey (1992) emphasised that the LSQ was intended as a developmental tool. Everyone uses all four learning styles, but to different extents. Indeed one of the interviewees (Diane/Int 5/19/DC) stated that she had recognised that she was reluctant to try new things and experiences, and had acted upon this information. This realization was as a result of attending a course in which sessions on learning styles were incorporated. It is important that officers develop their weaker learning styles in order to be effective, creating more of a balance between styles. From the perspective of a police trainer who has used the LSQ with officers I have found it to be a valuable tool for self development. It helps to concentrate officers' thinking on their areas of weakness so that they can see where they need to develop.

Learning styles have proffered a useful viewpoint from which as an 'insider' I have been able to scrutinize the aspirations, and experiences of female officers, which has been a valuable exercise. Learning styles are malleable, and are not therefore helpful in the recruitment or promotion selection procedures. They have however provided a unique perspective from which to view the data, and for respondents to consider their careers.

This research has explored the learning styles, career preferences and choices of female police officers against the backdrop of career aspirations and Learning Style preferences of male and female recruits, using the Honey and Mumford LSQ (APPENDIX C). The research found no strong relationship between learning styles and career aspirations, although there may be a weak relationship to certain learning style preferences. This chapter will present the conclusions and recommendations emerging from the research, evidencing the claim to be making a contribution to knowledge. The chapter concludes with a section drawing out recommendations from the research and the implications for future research.

Throughout the research I was conscious of my own position as an 'insider' and the potential implications of that, particularly when dealing with the data and respondents. I adopted a reflexive approach, and monitored my own assumptions as the research progressed.

7.1 Findings and Discussion

During the course of the research and analytical process, issues arose that are worthy of discussion. Several themes also emerged from the interviews and questionnaire data, some of which are discussed below.

7.1.1 Learning Styles

Riding and Rayner, (1998) suggest that certain learning styles may suit certain professions: this research has investigated this concept in relation to new recruits and junior officers. In chapter six (see section 6.4.1) it was highlighted that the 'norms' for learning styles varied somewhat across ranks within the service. This was derived both from this research of new recruits and junior officers and from Honey and Mumford's (1992) published results relating to the rank of Sergeant and Inspector. It was found that the norm for new recruits in the Reflector preference was higher than the other groups. For me this raised the question of whether the recruitment processes themselves favour this learning style, despite the norms for 'junior officers', Sergeants and Inspectors being lower. If this is the case it would be of benefit to the service to examine whether this is indeed an intentional or unintentional outcome of the selection process.

It is also worthy to note the higher norms for both Sergeants and Inspectors on the Pragmatist scales, and the very similar results for both ranks on the Theorist scales, both of which were obtained from Honey and Mumford's (1992) findings. There is no obvious explanation of this from this research, but this may well be of interest to those officers seeking promotion, and would also merit further research. Sergeants and Inspectors are first and second line managers, and as such are responsible for finding logical whilst practical solutions to situations encountered by their officers and staff. These qualities which align with Honey and Mumford's (1992) descriptors (see Fig. 3) for Pragmatist and Theorist are therefore highly valued.

Peter Honey (2009) suggests that women managers are more likely to be Activists, which would appear to be borne out somewhat by revealing that the three most senior ranking police officers interviewed (Chief Constable, Assistant Chief Constable and Detective Superintendent) all had a top learning style preference of Activist. This may, be of interest to ambitious women seeking promotion, who may wish to develop their Activist behaviour. From the interviews those officers with a preferred Activist learning style were more prepared to get involved with new experiences, assisting them to gain greater experience within the service. This stood them in good stead when applying for promotion, and in boosting confidence levels.

In chapter two I discussed how Mumford and Honey (1992) refer to the work on brain dominance which tends to the view that there are two types of style: right brain or cerebral hemisphere function (intuitive, spontaneous, qualitative) which they relate to the Activist and Pragmatist style, and left brain (factual, analytical and quantitative) to the Theorist and Reflector. Eysenck and Eysenck (1995) refer to the commonly held assumption that women are better at verbal tasks and men at physical tasks. If this were to be the case I expected that I might find more of the female respondents are likely to show the learning styles of Theorist or Reflector (see section 2.5.3). Of those women interviewed Theorist was the least popular preferred learning style. The data from the questionnaires completed by new recruits and junior officers both showed a higher average mean for males (11.57) for the Theorist learning style (Females average Both males and females would fall into the lower end of the mean being 11.0). Moderate Theorist spectrum. My findings do not therefore support the assumption that females would be expected to have a higher likelihood of having a preferred learning style of Theorist. Of course, neuroscience has moved on considerably since the 1990's.

On examining the data with respect to the Reflector learning style the findings were not so definitive: males were found to have a higher average mean at the new recruit stage (15.34), females at the junior officer stage (14.52). Overall the average for females was slightly higher at 14.58 than their male colleagues whose average was 14.49, both falling into the upper end of a moderate preference.

It was found that the 'norms' for both male and female new recruits and junior officers all related to a moderate preference for the Activist, Reflector and Theorist learning styles, with a low preference for that of Pragmatist.

7.1.2 Aspirations

Three of the most popular career aspirations for female officers were Community/Family Support type duties, C.I.D. and Firearms. From the questionnaire data some links were found between learning style preferences and career aspirations in the following areas:

Community and Family Support

This was one of the top four choices for female officers. Here it would appear that female Activist/Reflectors may have a preference for these types of duties. The most significant difference noted between the aspirations of female new recruits and female junior officer related to their expressions of interest in the community and family support type duties. In this area the percentage of interest had almost doubled from 14% to 39%. This is a significant increase in interest between the two groups, and would bear further investigation. Brown (2007) suggests that the interest women display in this type of role may be influenced by "societal stereotyping or adapting to the demands of the police occupation culture" (p.213), it would appear from the results of this research that far more females express an interest in this area after they have been in the service for a fifteen month period. This may imply they have been influenced is this aspect by the organizational culture.

Firearms

The female new recruits who expressed interest in the firearms department were all found to be high Activists, similar finding were discovered for the males. It was found that the percentage of females interested in firearms had doubled by the time they achieved fifteen months police service. Despite the level of interest shown in the firearms department this study found that females represented only 3% of firearms officers. This situation has altered little since Brown and Sargent (1995) reported only 2.6% of firearms officers nationally were females. Two of the female interviewees who had been firearms officers both reported having been discriminated against, resulting in one leaving the department. This is clearly an area for concern for both officers and the service.

• Traffic Department

All the females had results between Moderate to Low in the Theorist learning style, and Moderate to Very Low results in the Pragmatist learning style. No clear learning style preferences could be drawn, but whatever their preferred learning style they are likely to have lower preferences in Theorist and Pragmatist.

Dog Section

No female new recruits or junior officer indicated any interest in this department. (Of the males who indicated an interest almost two thirds had Activist as one of their preferred style, with Reflector being the next most dominant style.)

• Departmental Support

Of the new recruits and junior officers only one female chose this type of duty, which was insufficient to conclude any learning style preference. (The males all had a preferred style of Reflector).

These results are summarized below, see Table 6:

Table 6

Links between Learning Styles and Aspirations for Female Officers				
	Activist	Reflector	Theorist	Pragmatist
Community &	Strong/	Very Strong/	Moderate to	
Family	Moderate	Moderate	Low	
Support				
Firearms	Very Strong/			
	Strong			
Traffic			Moderate to	Moderate to
			Low	Very Low

No links were found between age, length of service or previous managerial experience to either male or females career aspirations. No further discernible patterns were evident in relation to learning style preferences and any other career aspirations, including the C.I.D. which was a popular career aspiration for both females and males.

Previous research (Alexander, 1995) had indicated that women were more likely to be undecided on any particular career path, linking this indecision to stereotyping and specialist roles. This was not borne out in this study where the results were very similar for both male and female new recruits (see section 6.1). Approx a quarter of both male and female new recruits were unsure of any future career aspirations. The findings for the female junior officers who were undecided (17%) on their career aspirations were also considerably lower than those found by Gaston and Alexander who found that approximately one third of women were undecided on their career (1997).

The indecision of new recruits and junior officers could arise from a lack of knowledge, and would appear to provide an opportunity for specialist departments to gain the interest of officers young in service, by providing more information regarding the roles and responsibilities involved.

7.1.3 Gap in Police Data

It was hoped that I could compare LSQ results with actual career choices, but a data gap was discovered. Records which are currently required by the Home Office to be included within statistical returns for each police force only gather certain information. Forces are not required therefore to maintain records relating to the deployment of female officers within specialist departments for example. This means that unless individual forces decide to capture this data for their own purposes it is not freely available. The force used in this study had previously supplied this type of data to me relating to a previous study (Parker, 2000). They no longer recorded this type of information and were unable to supply it, due to a change in the software which was incapable of being used to extract the required information. There was therefore no easily identifiable method of examining the overall deployment within departments such as the Criminal Investigation Department, Traffic and any other specialist role, and I was as a result unable to gain valuable information of importance to this research relating to the specific deployment of females in specialist roles.

7.1.4 Specialist Roles

As has been discussed above, some links between learning styles and some specialist roles have been found. The Police Force in which the study took place has a tenure policy for police officers deployed on all specialist roles. This policy sets an upper and lower limit for how long a sworn officer should be allowed to remain in a specific post (usually between two to six years). The policy is not always adhered to, and officers may in some posts remain for longer than the recommended limit. Some forces have indeed abandoned the policy as impractical, as the specialist knowledge and expertise is lost to a department if an experienced officer is forced to leave to go to other duties where their capabilities may not be utilized. Learning styles are malleable, and by denying officers the opportunity to specialise and gain wider experience they are effectively being denied the opportunity to develop balanced learning styles.

Several of the officers interviewed emphasised the importance to them of being allowed the opportunity to specialise and diversify, but also to be able to develop their skills and knowledge in a variety of specialist departments and roles, thereby providing the opportunity to develop their weaker preferences to become more equally balanced across all learning styles. As the service maintains its drive to civilianise an increasing number of roles (Taylor, 2008), the opportunities for officers to join specialist departments inevitably decreases. The reduction of these types of opportunities could ultimately have an impact on the retention figures of police officers, and should be closely monitored.

Her Majesty's government have expressed the intention to introduce what they refer to as multiple points of entry to the police service (Home Office, 2004). This would do away with the necessity for all police officers to enter policing at the rank of Constable, thereby allowing entry at a higher rank. This would clearly be at odds with some of the findings of this research, particularly where officers promoted early in their service sometimes felt they lacked experience and were under equipped to deal with certain specialist duties. The investigative nature of much of police work is a skill developed over time, and should not be discounted lightly.

The data revealed some interesting insights into the popularity or otherwise of some specialist departments. Differences were noted between the results from the new recruits and the responses from the junior officers for females, where a decline of

interest across all learning styles in gaining promotion to a higher rank was observed, together with a fall in popularity of the traffic department for the new recruits. Interest in these areas had increased for males. Further research is needed to investigate this phenomenon.

In the literature review in chapter three the findings of Westmarland (2001) were discussed in relation to what she referred to as "gendered assumptions" (p.18) pertaining to the type of posts that males and females may be interested in applying for. Here she referred to roles such as family protection officers which may traditionally be viewed as predominantly female territory. She found the policies and practices for selection to be equitable, and that it was indeed in the main women who put themselves forward for such posts. She questioned the commitment of the service to discover why women volunteer for these types of duties, observing that the service seemed content to show that policies and procedures were in place rather than investigate this phenomenon. She concluded that the reasons for such choices by female officers were varied, but that this type of work was not being forced onto women by men, but was being freely chosen by women. From the findings from this research I would concur with the findings of Westmarland (2001), in that I also found no evidence of female officers being forced by men into what may be viewed as more feminine roles.

7.1.5 Challenging Work

No link between preferred learning style and challenging work was found. However the need to be able to undertake such work was important to all learning styles. Previous studies (Holdaway and Parker, 1995) have found that female police officers rated the opportunity to undertake challenging work highly. This research found it to be a central theme within the study, and I would support their findings. Reference was also made by participants regarding the lack of support available to newly promoted officers, sometimes making it a lonely experience for females. Newly appointed police constables are paired with a tutor constable before being permitted to patrol independently. It would seem a similar scheme using appropriate mentors for newly promoted officers would provide the knowledge, experience and support that they could draw upon.

7.1.6 Recruitment Systems and Learning Styles

There is some evidence from this research to indicate that recruitment systems and processes may be favouring the Reflector learning style. I found that the overall average

'score' for the reflector learning style was higher for new recruits than for other groups of police officers, including officers with approximately 15 to 18 months of service. The new recruits were officers (both male and female) with less than two weeks police service, and it is therefore unlikely that their learning style preferences would have been significantly influenced within such a short time frame. This would indicate that the systems and processes such as assessment centres that are used to select suitable candidates to become police officers may well favour those applicants with a higher preference for the reflector learning style (see section 6.6.1). The service encourage officers to develop all four learning styles, and it is not clear whether this is an intentional outcome or an unintentional bias towards one learning style, and would merit further investigation.

7.2 Conclusions

From approaching this research from the women's perspective some links were made between career experiences and learning styles. It was discovered that those women who viewed themselves as successful were identified with themes such as challenge and excitement, luck and making a difference (see section 6.3). Many of these women had Pragmatist or Activist as one of their preferred learning styles. However no solid link between career choices and learning styles were found. My conceptual framework developed (see Fig. 6) from the interview data. As Miles and Huberman commented, "Conceptual frameworks can also evolve and develop out of fieldwork itself" (1994, p.21). I discovered from the interviews that those who believed themselves to be successful in their careers had certain commonalities which I termed as 'high empowerment'. This included their own perceived level of empowerment and confidence in their ability, the opportunities for advancement that they identified and how proactively they responded. The more successful respondents in this category also referred to high levels of excitement and inspiration when faced with a challenge. Role models were not found to be of high importance, but the support of a colleague or champion was valued highly. Their locus of control was not referred to by any of the respondents but was derived from the interviews themselves, and how the women viewed their ability to control events and outcomes. The women who felt they had more difficulty in succeeding were notable in that they were identified with the low empowerment category.

Conceptual Framework		
HIGH EMPOWERMENT	LOW EMPOWERMENT	
Confidence	Lack of Confidence	
Afforded Opportunity	Not Afforded Opportunity	
Proactive	Reactive	
Challenge & Excitement	Boredom - static	
Champion	No Champion	
Locus of Control	Lack of Locus of Control	
	Fig. 6	

7.3 Limitations of the Study

This study was conducted in one police force within England and Wales, and therefore can only reflect the situation as it presents itself in that locality. The new recruits were completing the questionnaire and LSQ within a classroom environment which some may have found distracting. One hundred and seventy seven new recruits (51 female), and one hundred and nine junior officers (23 female) completed the questionnaires in phase one. The total number of officers completing this stage was two hundred and eighty six, of which seventy four (25.8%) were female. A larger sample of females would have been preferable, but the overall response rate was 70% and felt to be representative of the groups in question.

The Honey and Mumford LSQ (1992) was used as the learning style instrument for the study. This questionnaire was familiar to the force in question, and to the trainers who assisted in administering the questionnaires. The reliability of the LSQ has been questioned, and its validity particularly as a predictor of academic success has also been challenged, and this is a limitation.

Fewer new recruits and junior officers volunteered to be interviewed than had been hoped; therefore the sample reflected in the interviews was less than intended. The themes emerging from the interviews were examined for links to particular learning styles. Eighteen women were interviewed, so greater numbers may be more representative. However, I felt the point of saturation was being reached as the final interviews added comparatively little. As a serving police officer there is always the possibility of unintentional bias entering into the process due to familiarity with the

culture and processes which could also be viewed as a limitation, although inside knowledge was helpful in other respects provided that I consciously controlled bias.

7.4 Critique of Methodology

This research had three phases. Phase one was undertaken using qualitative questionnaires together with the LSQ. Phase two and three consisted of semi-structured interviews with female officers who had also completed the LSQ. Phase two was conducted within the force, and phase three comprised of senior officers outside of the force area. All these officers were representative of a wide range of police experience.

If I were to undertake this research again, I would consider the use of another personality type or learning styles instrument. Although initially discounted for a number of reasons the Myers-Briggs M.B.T.I. would be worthy of consideration if cost were not an issue. I would also consider the use of an alternative method of recording the LSQ questionnaire data, to ease analysis and be more time efficient, although the method used was effective and kept me in touch with the data. In phase one some questionnaires were distributed by training staff on my behalf when police duties called me elsewhere. If I were to undertake this study again I would like to, if practical, administer them all myself. This may have improved the number of participants who were prepared to be later interviewed, although at the time as a serving officer my time was a consideration.

7.4.1 Learning Style Questionnaire

The Honey and Mumford LSQ was chosen as the instrument to establish the preferred learning style(s) of the participants because it was regularly used in police training. There are over seventy learning style instruments available (Coffield et al., 2004), and as Cassidy (2004) explains:

"the level of ambiguity and debate is such that event the task of selecting an appropriate instrument for investigation is an onerous one" (p.420).

The LSQ instrument has high face validity, and has been used extensively within Police training, although concerns regarding its reliability and validity have been expressed. This could be interpreted as an unsuitable instrument to have been used within this study; however Rayner (2007) refers to all learning style instruments having their

limitations. The LSQ was used due to its extensive use within police training, where it has been found to be a useful developmental tool and therefore worth investigating further.

7.4.2 Respondents

The design of the study relied on there being sufficient volunteers from the questionnaire stage being willing to be interviewed at a later date. Despite sufficient numbers of female officers initially agreeing to further participate by providing their contact details in Phase 1, only four ultimately made themselves available for interview. It had been hoped for a higher number of volunteers for the interview stage, to provide a longitudinal element to the study, particularly as that relates to any changes in Learning Style preference.

The response rate from the junior officers was not as high as for the new recruits and provided a sample size of 109 respondents, of which 23 were female. Greater numbers may have been more representative. However I felt it to be representative of the junior officers at that stage of training falling within the parameters of this research, and this sample represented one year's worth of officers at this stage of their training. The questionnaire data included both males and females, this was important to assist to identify any trends in the data due to the comparatively low numbers of female recruits.

7.4.3 Dynamics of Interviews

The experienced officers who participated in the interviews provided a large amount of data from each interview from which distinct themes emerged. The interviews were semi-structured, to provide for scope to pursue issues brought up by the participants. The interviews were planned for a free two way exchange, allowing for the dynamic nature of a more open structure. They were two way discussions with an emotional element often surfacing for both interviewee and interviewer, particularly when challenging incidents were being recalled of a discriminatory nature. It was important to the research to gain an in-depth insight into the experiences of females within the police service. The interviews provided some very rich data, not all of which can be reported in this study.

7.4.4 Recording and Analysis

At the start of the research a decision was reached to use a Microsoft Access Database to record and analyse the data from the questionnaires. This was chosen for a number of reasons including its accessibility. The initial setting up, input and interrogation of the data from the questionnaires was straightforward using this database, but as my requirements became more complex the interrogation of the data became more demanding. I found that Access was not suitable for all the varied ways in which I wished to examine the data, and the whole data-base was easily converted to Microsoft Excel which proved to be effective for my requirements. I would not use an Access database if I were to undertake similar research in the future, but would consider other alternatives.

I had originally considered using SPSS (Statistical Package for the Social Sciences) for the interviews but had decided against this as I felt that it did not afford me the flexibility that I required as it needs to be interrogated with specific questions, which would mean that nothing unexpected would ever be unearthed unless the correct questions were asked. I also wanted to be able to view each interview in its entirety, not in disconnected 'chunks' which would be out of context. From the varied responses gathered from both the qualitative questionnaire and the interviews my approach proved to be an effective method. I found that I had the flexibility to consider my data in a variety of ways which yielded some revealing insights during the research.

The interviews were transcribed onto Microsoft Word package, and this allowed me to create a simple but effective system where the text of the interview had a corresponding column for the coding. This system allowed me to develop the interpretative codes as the interviews progressed, and I was able to revisit each interview in the light of new codes emerging and update on an individual basis. This method had the advantage of my constant immersion within the data. I found this system also offered an easy and effective way of finding all occurrences of any particular code, which allowed me to compare and contrast data. The constant comparison approach provided me with the opportunity to cluster together codes into the themes as they emerged as a natural part of the process.

7.5 Contribution to Knowledge

Brown and Heidensohn (2000) identified a lack of focus on police officers career choices within the literature, this study has addressed this imbalance by providing officers the opportunity to reflect on their career decisions, choices and aspirations thereby permitting a meaningful intensity of insight into connections within the context of policing. In examining the careers of female officers and linking it to learning styles, it has provided a new context from which to view the existing literature.

This study expands previous literature through its emphasis on the individual officer and their experiences, related to their preferred learning style. It is approached from an 'insider' perspective of the researcher as that of a long-serving police officer, who has herself been immersed in the police culture. These findings contribute to existing knowledge in several ways, including the conceptual framework developed from the research which identifies the combination of attributes the participants identified as required for feeling successful. It also addressed the call for further research into the motivations of individuals called for by Nicholl and Robinson (2004).

High profile investigations into the British Police such as the MacPherson Inquiry (1999), the Scarman Report (1982) and Lord Laming's Report (2003) have highlighted the mainly white male heterosexual culture of the organisation. Silvestri (2003) draws attention to how these reports highlighted the need for "further attention to be given to the recruitment, retention and career progression of women" (p.6), which in part this research has addressed. The police organisation needs officers to be representative of the community it serves, drawing on the particular strengths that women officers can bring. It has identified a tendency for those officers with Pragmatist Activist preferences to feel more confident in dealing with their career experiences. It needs the officers themselves to be broadly based and representative of all learning style preferences in order to be efficient, and gain from the advantages that this can bring.

The intention at the outset of this research was to establish the relationship between individual learning styles of female police officers and their relationship to career aspirations and experiences. Using the Honey and Mumford (1992) learning styles questionnaire, some trends were indicated which have been discussed. Overall it was found the learning style norms for the groups studied did not differ significantly for males or females, and that trends were only found for some areas of career aspiration

for female officers. No links were found for example to one of the most popular aspirations – working as a C.I.D. officer. Whilst learning styles cannot be discounted as being linked to career aspirations, the Honey and Mumford LSQ can therefore be discounted as being a valuable research instrument to anticipate career aspirations and experience for female officers. The LSQ is routinely used as a developmental tool for officers to highlight areas of strength, and those areas they need to develop, and it has been shown to be useful for this purpose. The progress of subjects is not however monitored by the organisation and is left to the discretion of individual officers to monitor, which could be a problem for some. There is clearly scope for the LSQ to be further utilized, but needs a mechanism for ongoing support for officers to be able to understand, develop and monitor their progress.

From examining the career experiences of female officers other insights were gained. This resulted in my forming a conceptual framework relating to what I termed 'empowerment' (see Fig. 6). In this framework I have identified a range of factors which directly impinge on how the women interviewed interpreted their career.

7.6 Recommendations for Practice

This research has practical and theoretical implications for the police service, and for individual female officers which are set out below.

7.6.1 Recommendations for female Police Officers

The perception of success is not necessarily linked to promotion, but can also relate to the desire to specialise. Success is relative to the career aspirations of the individual, and as one Detective Superintendent explains it can be important to signpost those aspirations:

"You may not always know what you want but I think when you do, you should go after it and be seen to do that because I think people respond to that." (Stephanie/Int 12/18/Det Supt).

My recommendations for female police officers on how to get on is based upon the findings of this research:

1. If interested in promotion, consider developing and strengthening your Activist learning style. It was found that the two most senior female officers interviewed

(Chief Constable and Assistant Chief Constable) both had a single preferred learning style of Activist (Very Strong), and it was found that the next most senior female (Det. Superintendent) also had Activist as her preferred style. The sample at this rank is low, but could be indicative of a more confident approach to managing their careers.

2. Foster and develop both your Pragmatist and Activist learning styles, thereby developing your own locus of control, rather than adopting a fatalistic approach. This research identified a difference in the viewpoints of officers. Those who displayed a positive locus of control e.g. who took responsibility for what happened to them, rather than placing this responsibility on others had a far brighter and more optimistic view of their career. They sought and accepted that they were the person who had most control over whether they would ultimately view their career as successful or otherwise. They took charge of situations and opportunities, and did not allow others to unduly influence them.

During this research I became aware of certain commonalities that linked those female officers that identified themselves as successful. I developed this into a conceptual framework (see Fig. 6). Those officers who viewed their career as successful had what I referred to as high empowerment, whereas those who were less satisfied with their career so far had much in common with what I termed low empowerment.

7.6.2 Recommendations for the Police Service:

As has been highlighted by Bolton (2005) the police service is lagging behind other organisations in providing "flexibility, mobility and giving staff more control and autonomy over their career choices" (p.9). He also identified that:

"Wastage and the loss of recruits or trained police officers remains potentially one of the most serious problems for the police, given the costs in terms of time and money, of recruitment and training. Of those who leave the force ... one quarter do so voluntarily" (p.32).

This is a serious and certainly expensive concern for all police authorities, and one that requires strategically planned and sustained approach to address. My recommendations for the police service are:

- 1. Research to consider whether recruitment processes favour a high Reflector learning style, and whether this is consistent with the requirements of the service. The findings of this research indicate that new recruits have a higher preference for the reflector learning style than may have been anticipated from examining the preferences of serving officers. One explanation could be that the current processes for recruiting new officers may favour this learning style, and this should be investigated for two reasons. The first to establish whether recruitment processes account for this finding, the second to establish whether this is an intentional outcome and how it benefits the service.
- 2. Consider the use of Tutors/Mentors for newly promoted officers. It is standard practice for newly recruited police constables to be allocated a tutor constable when they first take up their duties as a police officer within the community. This is recognised as good practice as the tutors act in the capacity of a mentor, whilst also assessing the competence of each officer against the National Occupational Standards. Several interviewees including those with Activist preferred learning styles, referred to feeling vulnerable they had no support when newly promoted to the next rank. A tutor or mentor would greatly assist those new to the rank.
- 3. Consider the monitored and ongoing use of developmental tools such as the LSQ. Currently these diagnostic type tools are used, but left to the individual officer to monitor and develop. This clearly is not the most effective use of the LSQ. Processes should be considered to periodically monitor officers' progress.
- 4. Review the reduction of the number of specialist roles available to police officers. As opportunities to specialise diminish, the effect on retention should be monitored. Every interviewee expressed a desire to specialise, and gaining experience is essential to develop balanced learning styles. The police service is increasingly using the services of non-sworn officers in specialist roles. This inevitably decreases the opportunities for officers which would act as a demotivator. Police officers are expensive to train and therefore anything which impacts on retaining officers should be closely monitored.
- 5. Records of where officers are deployed to be collated and recorded at a national level, including the deployment of females and other minority groups in specialist departments. Currently the deployment figures collated by the Home Office and individual police forces are inadequate to discover the detail of how individual groups of officers are deployed. The lack of detail does not allow examination of

- how female (or any other minority group) are deployed to specialist departments and duties.
- 6. Provide more of an overview of specialist departments for newly recruited officers. It was found from the research that approximately one in four of every new recruit had no idea of the function of specialist departments. Many stated this as their reason for not having any clear career aspirations. This lack of knowledge meant that they would have no clear idea of the type of experience they would need to gain to go into these roles later in their career.
- 7. Research into the practice of ACPO ranking officers guiding career postings and choices. All of the high ranking female officers referred to officers of ACPO rank (comprising of Assistant Chief Constables and above) practice of channelling career postings and guidance. The interviewees felt pressured by these interventions, and this guidance was not always welcome, or felt to be the correct career choice for the individual concerned. There is a potential for officers to be mis-directed into career paths that they do not feel comfortable with. Whilst the intent behind this practice is undoubtedly sincere, this is a practice that should be examined and if found to be valuable officers of ACPO rank should be provided training/guidance on how to effectively provide support without being overbearing.
- 8. Further research into the negative reasons provided by female officers as being blocks to seeking promotion. Interviewees referred to being put off applying for promotion due to the practices and expectations that come with being promoted to the next rank. It was identified that these are not conducive with family life and were perceived as being blocks to progression.

Until police organisations integrate what Argyris and Schön (1978) referred to as double loop learning into their policies and practices, in other words using a questioning culture to re-examine their decisions and processes particularly in relation to the 'norms' associated with higher ranking posts the culture itself is unlikely to change. The police service should consider using the notion of double loop learning as a progressive tool for them to reconsider and question their underlying fundamentally held values and assumptions relating to rank.

7.7 Implications for Future Research

There is clearly a need for more research on the issues that impact on the careers of female officers. This has been recognised by the Home Office (2009b) who have announced a series of workshops for women officers to attend and explore the issues surrounding their "recruitment, retention and progression" (p.5). To summarize the areas that I have recommended further research to be undertaken into the following:

- consideration into whether recruitment processes favour a high reflector learning style, and whether this is consistent with the requirements of the service.
- into the negative reasons provided by female officers as being blocks to seeking promotion.
- the reduction of the number of specialist roles available to police officers, and the effect on retention.
- the practice of ACPO ranking officers guiding career postings and choices.
 Officers felt pressured by this, and did not always agree with the guidance given.
 There is clear potential here for officers to be misdirected into career paths which they may feel unsuitable for them as individuals.

These are all areas that have the capacity to adversely affect the progression of women (and men) within the service, and could offer some further insights into the practices that could be refined to better reflect the needs of its officers within a learning organization.

7.8 Concluding Thoughts

This is an important issue for the police in today's world as training police officers is expensive and time consuming, and every endeavour should be made to retain good officers within the service. Every effort should also be made to effectively develop individual officers, particularly in avoiding restricting the experience they are able to gain. This research has viewed the experiences of females within the service, and considers learning styles to be just one influence amongst many that may impact on officers' careers. The Honey and Mumford LSQ whilst useful to the service as a

developmental tool has not been found to be an effective tool for predicting career aspirations. No strong links between learning style and career aspirations was found.

References

- Acker, J. (1989) *Doing Comparable Worth: gender, class and pay equity*, Philadelphia, Temple University Press.
- Acker, J. (1990) Hierarchies, Jobs, Bodies: a theory of gendered organisations, *Gender and Society*, Vol 4, No 2, p.139-158.
- Alexander, J.A. (1995) *PC or not PC: that is the question: an investigation into the differential career patterns of male and female police officers in the Nottinghamshire Constabulary,* M.A. Thesis, University of Manchester.
- Allinson, J. and Hayes C. (1988) The Learning Style Questionnaire: an alternative to Kolb's Inventory? *British Journal of Management*, Vol 25, p.269-81.
- Allinson, J. and Hayes, C. (1990) Validity of the Learning Styles Questionnaire, *Psychological Reports*, Vol 67, p.859-66.
- Alvesson, M. and Sköldberg, K. (2000) *Reflexive Methodology: New Vistas for Qualitative Research*, London, Sage.
- Anderson, R. Brown, J. and Campbell, E. (1993) *Aspects Of Sex Discrimination In The Police Service In England And Wales,* London, Home Office.
- Argyle, M. (1972) The Social Psychology of Work, Harmondsworth, Penguin.
- Argyris, C. (1976) Theories of Action that Inhibit Individual Learning, *American Psychologist*, Vol 31, No 9, p.638-654.
- Argyris, C. and Schön, D.A. (1978) *Organizational Learning: a theory of action perspective,* Addison-Wesley, London.
- Arksey, H. and Knight, P. (1999) *Interviewing for Social Scientists*, London, Sage.
- Arnold, J., Silvester, J., Patterson, F., Robertson, I., Cooper, C., and Burnes, B. (2005) *Work Psychology: understanding human behaviour in the workplace,* Harlow, Pearson Educational.
- Ashman, A.F. and Conway, R.N.F. (1997) *An Introduction to Cognitive Education: theory and applications*, London, Routeledge.
- Barry, C.A. (1998) Choosing Qualitative Data Analysis Software, *Sociological Research Online*, Vol 3, No 3, http://www.socresonline.org.uk/socresonline/3/3/4.html [accessed 061109].
- Bebbington, S. (2008) High Fliers, *Police Review*, 19th Feb 2008, p.38-39.
- Beck, R. D. (2002) Integration or Exclusion? : perceptions of gender equality in policing, PhD Thesis, University of Wales Cardiff.

- Bell, J. (1993) *Doing Your Research Project,* (2nd Ed) Buckingham, Open University Press.
- BERA (1992) British Educational Research Association Ethical Guidelines.
- BERA (2004) *Revised Ethical Guidelines for Educational Research,* www.bera.ac.uk/files/2008/09/ethica1.pdf [accessed 270108].
- Berne, E. (1964) *Games People Play: the psychology of human relationships*, Penguin, Middlesex.
- Biggs, J.B. and Moore, P.J. (1993) *Process of Education* (3rd Ed), London, Prentice Hall.
- Bjork, M. (2008) Fighting Cynicism, *Police Quarterly*, Vol 11, No 1, p.88-101.
- Bolton. A.H. (2005), Lawler, S. (Ed) *Policing Matters: recruitment, training and motivation,* in Part I Report, Politeia, London.
- Boni, N. (1998) Deployment of Women in Policing, Adelaide, National Police Research Unit.
- Brainerd, C.J. (1978) *Piaget's Theory of Intelligence, New* York, Prentice Hall.
- Breakwell, G., Hammond, S. and Fife-Schaw, C. (1995) *Research Methods in Psychology,* London, Sage.
- Brew, C. (2002) Kolb's Learning Style Instrument: sensitive to gender, *Educational and Psychological Measurement*, Vol 62, No 2, p.373-390.
- Brown, J. (1997) European Policewomen; a comparative research perspective, International Journal of the Sociology of Law, Vol 25, p.1-19.
- Brown, J. (1998) Comparing Charges: the experience of discrimination and harassment among women police officers serving in Australia, the British Isles and the United States of America, *International Journal of Police Science and Management*, Vol 1, No 3, p.227-240.
- Brown, J.M. (1998a) Aspects of Discriminatory Treatment of Women Police Officers serving in Forces in England and Wales, *British Journal of Criminology*, Vol 38, No 2, p.265-282.
- Brown, J. (2005) Cultural Divide: the old macho police culture still exists, *Police Review,* Vol 9, p.22-23.
- Brown, J. (2007) From Cult of Masculinity to Smart Macho: gender perspectives on police occupational culture, **in** O'Neill, M., Marks, M. And Singh, A. (Eds), Police Occupational Culture: new debates and directions, *Sociology of Crime Law and Deviance*, Vol 8, p.205-226.
- Brown, J. (2007a) Macho Managers, *Police Review,* April 20th, p.24-25.

- Brown, J. and Campbell, E.A. (1991) Less than Equal: police culture still restricts opportunities for female officers, *Policing*, Vol 7, No 4, p.324-333.
- Brown, J. and Harleston, D. (2003) Being Black or Asian and a Woman in the Police Service, *Policing Futures*, Vol 1, No 3, p.19-32.
- Brown, J. and Heidensohn, F. (2000) *Gender and Policing: comparative perspectives,*Basingstoke, MacMillan.
- Brown, J. M., Maidment, A. and Bull, R. (1993) Appropriate Skill-task Matching or Gender Bias in Deployment of Male and Female Officers? *Policing and Society*, Vol 3, No 2, p.121-136.
- Brown, J. and Neville, M. (1996) Arrest rate as a Measure of Policemen and Women's Productivity and Competence, *The Police Journal*, Vol 69, No 4, p.299-307.
- Brown, J. and Sergeant, S. (1995), Policewomen and Firearms in the British Police Service, *Police Studies*, Vol 18, No 2, p.1-16.
- Bruner, J.S. (1960) The Process of Education, London, Oxford University Press.
- Bruner, J.S., Goodnow, J.J. and Austin G.A. (1956) A Study of Thinking, London, Wiley.
- Bruner, J.S. and Sherwood, V. (1976), R. Harre (Ed) *Life Sentences: Aspects of the Social Role of Language*, **in** Chap. 8 Early Rule Structure: the case of 'Peekaboo', New York, John Wiley.
- Buchanan, D.A. and Huczynski, A.A. (1985) *Organisational Behaviour*, London, Prentice-Hall.
- Burbeck, E. and Furnham, A. (1984) Personality and Police Selection: trait differences in successful and non-successful applicants to the Metropolitan Police, *Personality and Individual Differences*, Vol 5, No 3, p.257-263.
- Burbeck, E. and Furnham, A. (1985) Police Officer Selection: a critical review of the literature, *Journal of Police Science and Administration*, Vol 13, No 1, p.58-69.
- Burke, R.J. and Mikkelsen, A. (2005) Examining the Career Plateau among Police Officers, *Policing: an international journal of police strategies and management,* Vol 29, No 4, p.691-703.
- Caple, J. and Martin, C. (1994) Reflections of Two Pragmatists, *Industrial and Commercial Training*, Vol 26, No 1, p.16-20.
- Cano-Garcia, F. and Hughes, E.H. (2000) Learning and Thinking Styles: an analysis of their interrelationship and influence on academic achievement, *Educational Psychology*, Vol 20, No 4, p.413-430.

- Carrier, J. (1988) *The Campaign for the Employment of Women as Police Officers,* Aldershot, Avebury.
- Cassidy, S. (2004) Learning Styles: an overview of theories, models, and measures, *Educational Psychology*, Vol 24, No 4, p.419-444.
- Cassidy, S. (2006) Learning Style and Student Self-assessment Skill, *Education and Training*, Vol 48, No 2/3, p.170-177.
- Cassidy, S. and Eachus, P. (2000) Learning Style, Academic Belief Systems, Self-Report Student Proficiency and Academic Achievement in Higher Education, *Educational Psychology*, Vol 20, No 3, p.307-322.
- Chan, J.B.L. (1996) Changing Police Culture, *British Journal of Criminology*, Vol 36, No 1, p.109-134.
- Chan, J.B.L. (1997) *Changing Police Culture: policing in a multi-cultural society,*Cambridge, Cambridge University Press.
- Chan, J.B.L., Devery, C. and Doran, S. (2003) *Fair Cop: learning the art of policing,* London, University of Toronto Press.
- Charlesworth, Z.M. (2005) Convergent Learning Styles in International Higher Education, *paper presented at 10th Annual Learning Styles Conference,* University of Surrey.
- Charlesworth, Z.M. (2008) Learning Styles across Cultures: suggestions for educators, *Education and Training*, Vol 50, No 2, p.115-127.
- Charmaz, K. (2000), Denzin, N.K. and Lincoln, Y.S. (Eds), *Handbook of Qualitative Research* (2nd Ed), **in** Chap. 19 Grounded Theory, London, Sage.
- Cockburn, C. (1991) *In the Way of Women: men's resistance to sex equality in organisations,* Basingstoke, MacMillan.
- Coffey, S., Brown, J. and Savage, S. (1992) Policewomen's Career Aspirations: some reflections on the role and capabilities of women in policing in Britain, *Police Studies,* Vol 15, No 1, p.13-19.
- Coffield, F., Moseley, D., Hall, E. and Ecclestone, K. (2004) *Learning Styles and Pedagogy in post-16 Learning: a systematic and critical review*, London, Learning & Skills Research Centre.
- Cohen, L. and Manion, L. (1994) *Research Methods in Education,* (4th Ed), London, Routeledge.
- Cohen, L., Manion, L. and Morrison, K. (2000) *Research Methods in Education* (5th Ed), London, Routledge.

- Cornwell, J.M. and Manfredo, P.A. (1994) Kolb's Learning Style Theory Revisited, *Educational and Psychological Measurement*, Vol 54, No 2, p.317-327.
- Critchley, T.A. (1978) A History of Police in England and Wales, London, Constable.
- Crompton, R., Gallie, D. and Purcell, K. (Eds) (1996) *Changing Forms of Employment: organisations, skills and Gender,* London, Routeledge.
- Curry, L. (1991) Patterns of Learning Style across selected Medical Specialties, *Educational Psychology*, Vol 11, No 3 & 4, p.247-277.
- Curzon, L.B. (1997) *Teaching in Further Education* (5th Ed), London, Cassell.
- Daum, J.M. and Johns, C.M. (1994) Police work from a Woman's Perspective, *Police Chief*, Vol 61, No 9, p.46-49.
- Denscombe, M. (1998) *The Good Research Guide,* Buckingham, Open University Press.
- Denscombe, M. (1998a) (3rd Ed) *The Good Research Guide,* Maidenhead, Open University Press.
- Denzin, N.K. and Lincoln, Y.S. (Eds) (1994) *Handbook of Qualitative Research,* London, Sage.
- De Vita, G. (2001) Learning Styles, Culture and Inclusive Instruction in the Multicultural Classroom: a business and management perspective, *Innovations in Education and Teaching International*, Vol 38, No 2, p.165-174.
- Dewey, J. (1998 [1938]) *Experience and Education: the 60th anniversary edition,*http://books.google.co.uk/books?id=UE2EusaU53IC&printsec [accessed 110909].
- Dick, P. and Jankowicz, D. (2001) Social Constructionist account of Police Culture and its influence on the Representation and Progression of Female Officers: a repertory grid analysis in a UK police force, *Policing: an International Journal,* Vol 24, No 2, p.181-199.
- Duff, A. (1997) Validating the Learning Styles Questionnaire and Inventory of Learning Processes in Accounting: a research note, *Accounting Education*, Vol 6, No 3, p.263-272.
- Duff, A. (2001) A Note on the Psychometric properties of the Learning Style Questionnaire, *Accounting Education*, Vol 10, No 2, p.185-197.
- Duncombe, J. and Jessop, J. (2002), Mauthner, M., Birch, M., Jessop, J. and Miller, T. (Eds), *Ethics in Qualitative Research,* in Chap. 6, London, Sage.
- Dunhill, C. (Ed) (1989) *The Boys In Blue: women's challenge to the police,* London, Virago Press.

- Edwards, R. and Mauthner, M. (2002), Mauthner, M., Birch, M., Jessop, J. and Miller T. (Eds), *Ethics in Qualitative Research*, **in** Chap. 1, London, Sage.
- Edwards, S. (1990) Challenging The Boys In Blue, *Police Review*, p.642-643, Mar. 30.
- Ely, M. Anzul, M. Friedman, T. Garner, D. and McCormack Steinmetz, A. (1991) *Doing Qualitative Research: circles within circles,* London, Falmer.
- Entwistle, N. and Tait, H. (1996) *Approaches and Study Skills Inventory for Students*,

 Centre for Research on Learning and Instruction, University of Edinburgh,

 Edinburgh.
- Eysenck, H. and Eysenck, M. (1995) *Mind Watching: why we behave the way we do,*London, Prion.
- Fielding, N. and Fielding, J. (1992) Comparative Minority: female recruits to a British constabulary force, *Policing and Society*, Vol 2, No 3, p.205-218.
- Fielding, N. (1999) Policing's Dark Secret: the career paths of ethnic minority officers, *Sociological Research Online,*www.socreonline.org.uk/socresonline/4/lawrence/fielding.html [accessed 050608].
- Flavell, J. H., Miller, P. H. and Miller, S. (1993) *Cognitive Development* (3rd Ed), New Jersey, Prentice-Hall.
- Flyvbjerg, B. (2004), Seale, C., Gobo, G., Gubrium, J.F., and Silverman, D. (Eds), *Qualitative Research Practice,* **in** Five Misunderstandings about Case-study Research, London, Sage.
- Fontana, A. and Frey, J.H. (2000), Denzin, N.K. and Lincoln, Y.S. (Eds), *Handbook of Qualitative Research* (2nd Ed), **in** Chap. 24 The Interview, London, Sage.
- Foster, P. (1999) Some Critical Comment on the BERA Ethical Guidelines, *Research Intelligence*, Vol 67, p.24-28.
- Foster, J., Newburn, T. and Souhami, A. (2005) *Assessing The Impact Of The Stephen Lawrence Inquiry*, London, Home Office Research Development and Statistics Division.
- Freedman, R. D. and Stumpf, S. A. (1980) Learning Style Theory: less than meets the eye, *Academy of Management Review*, Vol 5, No 3, p.445-447.
- Fung, Y.H., Ho, A.S.P. and Kwan, K.P. (1993) Reliability and Validity of the Learning Styles Questionnaire, *British Journal of Educational Technology,* Vol 8, No 1, p.12-21.

- Furnham, A. (1992) Personality and Learning Style: a study of three instruments, *Personality and Individual Differences,* Vol 13, No 4, p.429-438.
- Furnham, A. (1992a) *Personality at Work: the role of individual differences in the workplace,* London, Routeledge.
- Gagné, R.M. (1985) *The Conditions of Learning: and theories of instruction* (4th Ed), New York, CBS.
- Gardner, H. (1993) *Frames of Mind: the theory of multiple intelligences* (2nd Ed), London, HarperCollins.
- Gardner, H. (2000) Can Technology Exploit our many ways of knowing,

 www.http://www.howardgardner.com/docs/Can%20Technology%20Exploit%20O

 ur%20Many%20Ways%20of%20Knowing.pdf [accessed 110908].
- Garner, I. (2000) Problems and Inconsistencies with Kolb's Learning Styles, *Educational Psychology*, Vol 20, No 3, p.341-348.
- Gaston, K. and Alexander, J. A. (1997) Women in the Police: factors influencing managerial advancement, *Women in Management Review,* Vol 12, No 2, p.47-55.
- Geake, J. (2008) Neuromythologies in Education, *Educational Research*, Vol 50, No 2, p.123-133.
- Gerson, K. and Horowitz (2002), May, T. (Ed) *Qualitative Research in Action* in Chap. 9, London, Sage.
- Gillick, M. (1996) Battle For Justice, *Policing Today*, Vol 4, No. 4, p.38 41.
- Gillies, V. and Alldred, P. (2002), Mauthner, M., Birch, M., Jessop, J. and Miller T. (Eds), *Ethics in Qualitative Research* **in** Chap.2, London, Sage.
- Giordmaine, C. (2007) Breaking down Gender Barriers, Newsbeat, p.28-29. (August 2007).
- Glaser, B. and Strauss, A. (1967) *The Discovery of Grounded Theory,* Chicago, Aldine.
- Goldstein, M.B. and Bokoros, M.A. (1992) Tilting at Windmills: comparing the Learning Style Inventory and the Learning style Questionnaire, *Educational and Psychological Measurement*, Vol 52, No 3, p.701-708.
- Haddon, F.A. and Lytton, H. (1968) Teaching Approach and the Development of Divergent Thinking Abilities in Primary Schools, *British Journal of Educational Psychology*, Vol 38, p.171-141.
- Halford, A. (1993) No Way up the Greasy Pole, London, Constable and Co. Ltd.
- Handy, C.B. (1985) *Understanding Organizations*, (3rd Ed), Harmondsworth, Penguin.

- Hayes, J. and Allinson, C.W. (1996) The implications of Learning Styles for Training and Development: a discussion of the matching hypothesis, *British Journal of Management*, Vol 7, p.63-73.
- He, N., Zhao, J. and Ren, L. (2005) Do Race and Gender Matter in Police Stress? *Journal of Criminal Justice*, Vol 33, p.535-547.
- Heidensohn, F. (1992) *Women In Control: the role of women in law enforcement,* Oxford, Open University Press.
- Heidensohn, F. (1994) We Can Handle it out Here. Women Officers in Britain and the USA and the Policing of Public Order, *Policing and Society, Vol 4, No 4, p.293-303. Introduction.*
- Heidensohn. F. (1998) Women in Policing: the state of play in terms of gender equality, *Criminal Justice Matters,* Vol 32, p.13-14.
- Heidensohn, F. (1998a), Holdaway, S. and Rock, P. (Eds), *Thinking About Criminology*,in Chap. 4 Translation and refutations: an analysis of changing perspectives in criminology, p.55-72, London, UCL Press.
- Henning, J.E., Stone, J.M. and Kelly, J.L. (2009) *Using Action Research to Improve Instruction,* Routeledge, London.
- Hildebrand, D.L. (2008) *John Dewey*, Oneworld Press,

 http://www.johndewey.org/Welcome.html [accessed 090709].
- HMIC (1996) Developing Diversity In The Police Service Equal Opportunities Thematic Inspection Report 1995, London, Home Office.
- Hofstede, G. (1994) Cultures and Organizations, London, HarperCollins.
- Holdaway, S. (1983) *Inside The British Police: a force at work,* Oxford, Blackwell.
- Holdaway, S. and Parker, S. (1995) *Equal Opportunities for Women Officers in South Yorkshire Police,* University of Sheffield, Department of Sociological Studies.
- Holdaway, S. and Parker, S. (1998) Policing women police: uniform, patrol, promotion and representation in the CID, *British Journal of Criminology*, Vol 38, No 1, p.40-60.
- Holder, K.A., Nee, C. and Ellis, T. (1999) Triple Jeopardy? Black and Asian women police officers' experience of discrimination, *International Journal of Police Science and Management*, Vol 3, No 1, p.68-87.
- Homan, R. (2002), McNamee, M. and Bridges, D. (Eds) *The Ethics of Educational Research*, **in** Chap. 2, Oxford, Blackwell.
- Home Office (1989) *Circular 87/1989 Equal Opportunities Policies in the Police Service,* London, Home Office.

- Home Office (2002) *Home Office Statistical Bulletin 10/02; police service strength,* London, Home Office.
- Home Office (2004) *Building Communities, Beating Crime: a better police service for the*21st century, http://police.homeoffice.gov.uk/publications/police-reform/wp04 complete.pdf?view=Binary [accessed 020909].
- Home Office (2009) *Home Office Statistical Bulletin 13/09; police service strength,* London, Home Office.
- Home Office (2009b) *Policing Policy e-bulletin,* Sept 2009, Issue 128, http://police.homeoffice.gov.uk/publications/policing-policy-e-bulletin/policing-policy-e-bulletin-128 [accessed 071009].
- Honey, P. (1998) A Declaration on Learning, *Police Research and Management*, Vol 2, No 4, p.3-10.
- Honey, P. (2009) *Are Women Better Learners than Men?* Created 180909, http://www.peterhoney.com/article.aspx?id=11 [accessed 071009].
- Honey, P. and Mumford, A. (1992) *The Manual of Learning Styles,* Maidenhead, Peter Honey.
- Honey, P. and Mumford, A. (2000) *The Learning Styles Helpers Guide,* Maidenhead, Peter Honey.
- House, E.R. and Howe, K.R. (1999) *Values in Evaluation and Social Research,* London, Sage.
- Howard-Jones, P. (2007) *Neuroscience and Education: issues and opportunities,* TLRP,
 University of London, <u>www.tlrp.org/pub/documents/neuroscience%20final.pdf</u>
 [accessed 100908].
- Hunsaker, J.S. (1981) The Experiential Learning Model and the Learning Style Inventory: an assessment of current findings, *Journal of Experiential Learning and Simulation*, Vol 2, p.145-152.
- Hunt, J.C. (1990) The Logic of Sexism among Police, *Women and Criminal Justice,* Vol 1, No 2, p.3-30.
- Hwang, L. J. (2005) An Examination on the Relationships Between Pupils' Learning

 Preferences and Their Academic Performance, *paper presented at 10th Annual Learning Styles Conference*, University of Surrey.
- Jackson, C. and Lawty-Jones, M. (1996) Explaining the overlap between Personality and Learning Style, *Personality and Individual Differences*, Vol 20, No 3, p.293-300.
- Jackson, L. J. (2006) *Women Police: gender, welfare and surveillance in the twentieth century,* Manchester, Manchester University Press.

- John, O.P. and Srivastava, S. (1999) *The Big-Five Trait Taxonomy: history, measurement, and theoretical perspectives,* University of California, http://www.uoregon.edu/~sanjay/pubs/bigfive.pdf [accessed 091009].
- Johnson, D. (1994) *Research Methods In Educational Management, Harlow,* Longman.
- Johnson, D.W. and Johnson, R.T. (2005) New Developments in Social Interdependance Theory, *Genetic, Social and General Psychology Monographs,* Vol 131, No 4, p.285-358.
- Johnson, G. and Scholes, K. (1997) *Exploring Corporate Strategy,* (4th Ed) London, PrenticeHall.
- Jones, C., Reichard C., and Mokhtari, K. (2003) Are Students' Learning Styles Discipline Specific?, *Community* College *Journal of Research and Practice*, Vol 27, No 5, p.363-375.
- Jones, S. (1986) *Policewomen and Equality: formal policy v informal practice,* London, MacMillan.
- Jones, S. (1987) Making it work: some reflections on the Sex Discrimination Act, *Police Journal*, Vol 60, p.294-302.
- Kanter, R.M. (1977) Men and Women of the Corporation, New York, Basic.
- Kappe, F.R., Boekholt, L., Rooyen, C., and Van der Flier, H. (2009) A Predictive Validity Study of the Learning Styles Questionnaire (LSQ) using Multiple, Specific Learning Criteria, *Learning and Individual Differences*, Vol 19, p.464-467.
- Kay, S. (1994) Why Women don't apply to be Police Officers, *The Police Chief*, Vol 91, No 9, p.44-45.
- Kayes, D.C. (2002) Experiential Learning and its Critics: preserving the role of experience in management learning and education, *Academy of Management and Education*, Vol 1, No 2, p.137-149.
- Kelly, L., Burton, S. and Regan, L. (1994), Maynard, M. And Purvis, J. (Eds), *Researching Women's Lives from a Feminist Perspective*, **in** Chap. 2, London, Taylor & Francis.
- Kitzinger, C. (2004), Seale, C., Gobo, G., Gubrium, J.F., and Silverman, D. (Eds), *Qualitative Research Practice,* **in** Chap. 8 – Feminist Approaches, London, Sage.
- Knowles, M.S., Holton, E.F. and Swanson, R.A. (1998) *The Adult Learner* (5th Ed), Houston, Gulf.

- Kolb, D.A. (1981) Experiential Learning Theory and the Learning Style Inventory: a reply to Freedman and Stumpf, *Academy of Management Review,* Vol 6, No 2, p.289-296.
- Kolb, D.A. (1984) Experiential Learning: experience as the source of learning and development, London, Prentice Hall.
- Kramlinger, T. and Huberty, T. (1990) Behaviourism Versus Humanism, *Training and Development Journal*, Dec, p.41-45.
- Kvale, S. (1996) *Interviews: an introduction to qualitative research interviewing,* London, Sage.
- Laming, H. (2003) *The Victoria Climbé Inquiry: report of an inquiry by Lord Laming,* London, HMSO.
- Lock, J. (1978) It's A Fair Cop: the first women police, *Sunday Times Magazine*, p.42-47, Nov. 5.
- Loo, R. (1999) Confirmatory factor analyses of Kolb's Learning Style Inventory (LSI-1985), *British Journal of Educational Psychology,* Vol 69, p.213-219.
- Love, K. and Singer, M. (1998) Self-Efficacy, Psychological Well-Being, Job Satisfaction and Job Involvement: a comparison of male and female police officers, *Police Studies*, Vol 11, p.98-102.
- MacPherson, W. (1999) MacPherson Report On Stephen Lawrence Enquiry, London, Police Review, Feb. 26, p.4-7.
- Marriott, P. (2002) A Longitudinal Study of Undergraduate Accounting Students' Learning Style Preferences at two UK Universities, *Accounting Education*, Vol 11, No 1, p.43-62.
- Martin, C. (1996) The Impact of Equal Opportunities Policies on the Day-to-day Experiences of Women Police Constables, *British Journal of Criminology*, Vol 36, No 4, p.510-528.
- Maslow, A. (1970) *Motivation and Personality*, (2nd Ed) New York, Harper and Row.
- Matthias, A. (1998) *History of Equal Opportunities & Community Race Relations Within The Service,* Unpublished.
- Maynard, M. (1994) Maynard, M. and Purvis, J. (Eds) *Researching Women's Lives from a Feminist Perspective*, London, Taylor & Francis.
- McNamee, M. (2002), McNamee, M. And Bridges, D. (Eds), *The Ethics of Educational Research*, **in** Whose Ethics, Which Research, Oxford, Blackwell.
- McNeill, P. (1985) Research Methods, London, Routledge.

- Meagher, M. S. and Yentes, N. (1986) Choosing a Career in Policing: a comparison of male and female perceptions, *Journal of Police Science and Administration*, Vol 14, No 4, p.320-327.
- Messick, S. (1976) **cited in** Entwistle, N. (1981) *Styles of Learning and Teaching,* p.203, Chichester, Wiley.
- Metallidou, P. and Platsidou, M. (2008) Kolb's Learning Style Inventory-1985: validity issues and relations with metacognitive knowledge about problem solving strategies, *Learning and Individual Differences*, Vol 18, No 1, p.114-119.
- Miles, M.B. and Huberman, A.M. (1994) Qualitative Data Analysis, (2nd Ed) London, Sage.
- Miller, A.H. (2007) *Exploring The Persistency Of Bullying In A British Police Force,*Unpublished PhD Thesis, University of Portsmouth.
- Miller, T. and Bell, L. (2002), Mauthner, M., Birch, M., Jessop, J. and Miller T. (Eds), *Ethics in Qualitative Research*, **in** Chap. 3, London, Sage.
- Morris, W., Burden, A. and Weekes, A. (2004) *The Report of the Morris Inquiry,* Morris Inquiry.
- Mulchandani, R. and Sigurdsson, J. (2009) Police Service Strength England and Wales 31 March 2009, *Home Office Statistical Bulletin 13/09*, London, Home Office.
- Mumford, A. (1994) Reflections of Two Pragmatists: a response, *Industrial and Commercial Training*, Vol 26, No 1, p.21-22.
- Mumford, A. (1995) Learning Styles and Mentoring, *Industrial and Commercial Training*, Vol 27, No 8, p.4-7.
- Mumford, A. and Honey, P. (1992) Questions and Answers on Learning Styles

 Questionnaire, *Industrial and Commercial Training*, Vol 24, No 7, p.10-13.
- Murphy, S.A. (2008) The Role Of Emotions And Transformational Leadership On Police Culture: an auto ethnographic account, *International Journal of Police Science and Management*, Vol 10, No 2, p.165-178.
- Murray-Harvey, R. (1994) Learning Styles and approaches to learning: distinguishing between concepts and instruments, *British Journal of Educational Psychology*, Vol 64, p.373-388.
- Myers, I.B., (1998) Introduction to Type, (6th Ed), Oxford, OPP.
- Myers, I.B., McCaulley, M.H., Quenk, N.L. and Hammer, A.L. (2003) *MBTI Manual,* (3rd Ed), California, OPP.
- Neuman, W.L. (1994) Social Research Methods, (2nd Ed) London, Allyn & Bacon.
- Neyroud, P. and Beckley, A. (1981) *Policing, Ethics and Human Rights,* Cullompton, Willan.

- Nicholl, C. and Robinson, S.F. (2004) Understanding Motivational IQ in Women Officers, *Women Police*, Summer 2004, p. 6-9.
- Nicholson, N. and West, M. (1989) *Managerial Job Change: men and women in transition,* Cambridge, Cambridge University Press.
- Noaks, L. and Wincup, E. (2004) *Criminological Research: understanding qualitative methods,* London, Sage.
- Oakley, A. (1974) **cited in** Haralambos, M. and Holborn, M. (1991) *Sociology Themes And Perspectives,* (3rd Ed), p.530-1, London, Collins Educational.
- Oakley, A. (1981) Doing Feminist Research, London, Routledge.
- Oakley, A. (2000) *Experiments in Knowing: gender and method in the social sciences,* Oxford, Polity.
- Ojha, H. (2008) Social Origin of Locus of Control, *Social Science International*, Vol 24, No 1, p.26-33.
- Oppenheim, A. N. (1994) *Questionnaire Design, Interviewing and Attitude Measurement,* London, Printer Publications.
- Parker, C.E. (2000) *Does Police Training Adequately Equip Female Police Officers to Progress in a Predominantly Male Profession,* Unpublished BA Dissertation, University College Worcester.
- Pask, G. (1976) Styles and Strategies of Learning, *British Journal of Educational Psychology*, Vol 46, p.128-148.
- Pedler, M., Burgoyne, J. And Boydell, T. (1996) *The Learning Company,* (2nd Ed) New York, McGraw-Hill.
- Pettman, E. (1996) *The Representation of Women Officers: specialist roles,* London, Police Research Group.
- Philbin, M., Meier, E., Huffman, S. and Boverie, P. (1995) A Survey of Gender and Learning Styles, *Sex Roles*, Vol 32, No 7 & 8, p.485-494.
- Plovnick, M. (1975) Primary Care for Career Choices and Medical Students Learning Styles, *Journal of Medical Education*, Vol 50, p.849-855.
- Powell, G.N. and Mainiero, L.A. (1992) Cross-Currents in the River of Time: conceptualizing the complexities of women's careers, *Journal of Management*, Vol 18, No 2, p.215-237.
- Presland, J. (1994) Learning Styles and CPD, *Educational Psychology in Practice*, Vol 10, No 3, p.179-184.
- Price, L. (2004) Individual Difference in Learning: cognitive control, cognitive style, and learning style, *Educational Psychology*, Vol 24, No 5, p.681-698.

- Prince, J. (1993) *Processes of Identity in Female Police Officers*, PhD Thesis, Cranfield Institute of Technology.
- Rabe-Hemp, C.E. (2008) Survival In An 'All Boys Club': policewomen and their fight for acceptance, *Policing: An International Journal Of Police Strategies and Management*, Vol 31, No 2, p.251-270.
- Rabe-Hemp, C.E. (2008a) Female Officers and the ethic of care: does gender impact police behaviours, *Journal of Criminal Justice*, Vol 36, p.426-434.
- Rabe-Hemp, C. E. And Schuck, A.M. (2007) Violence Against Police Officers: are female officers at greater risk, *Police Quarterly*, Vol 10, No 4, p.411-428.
- Rae, L. (1986) The Application of Learning Styles, *Industrial and Commercial Training*, Vol 19, No 2, p.8-11.
- Rayner, S. (2007) A Teaching Elixir, learning chimera or just fool's gold? Do Learning Styles Matter? *Support For Learning*, Vol 22, No 1, p.24-30.
- Rayner, S. and Riding, R. (1997) Towards a Categorisation of Cognitive Styles and Learning Styles, *Educational Psychology*, Vol 17, No 1 & 2, p.5-27.
- Reece, I. and Walker, S. (1997) *Teaching Training and Learning,* (3rd Ed), Sunderland, Business Education Publishers.
- Rees, T. (1992) Women and the Labour Market, London, Routledge.
- Reiner, R. (1992) The Politics Of The Police, Hemel Hempstead, Harvester Wheatsheaf.
- Reynolds, M. (1997) Learning Styles: a critique, *Management Learning*, Vol 28, No 2, p.115-134.
- Richardson, K. (1998) Models of Cognitive Development, Hove, Psychology Press.
- Riding, R. (1997) On the Nature of Cognitive Style, *Educational Psychology*, Vol 17, 1 & 2, p.29-49.
- Riding, R. (2002) School Learning and Cognitive Style, London, David Fulton.
- Riding, R. and Rayner, S. (1998) *Cognitive Styles and Learning Strategies,* London, David Fulton.
- Riding, R. and Watts, M. (1997) The effect of cognitive style on the preferred format of instructional material, *Educational Psychology*, Vol 17, p.179-83.
- Riding, R. and Wigley, S. (1997) The relationship between cognitive style and personality in Further Education students, *Personality and Individual Differences*, Vol 23, No 3, p.379-389.
- Robson, C. (1993) Real World Research, Oxford, Blackwell.
- Rogers, A. (1996) *Teaching Adults* (2nd Ed), Buckingham, Open University Press.

- Rogers, C. (1990), Kirschenbaum, H. and Henderson, V. L. (Eds), *The Carl Rogers Reader*, **in** Chap. 17, London, Constable.
- Rogers, C., Brocklebank, H. and Martin, H. (2009) Female Officers Perceptions of

 Applying for Promotion and Specialist Departments in Gwent Police, Centre for
 Police Sciences, University of Glamorgan.
- Rogers, C.R. and Freiberg, H.J. (1994) *Freedom to Learn*, (3rd Ed), Upper Saddle River, New Jersey.
- Sadler-Smith, E. (1997) Learning style: frameworks and instruments, *Educational Psychology*, Vol 17, No 1 & 2, p.51-63.
- Sadler-Smith, E. (1999) Intuition-analysis Cognitive Style and Learning Preferences of Business and Management Students, *Journal of Managerial Psychology*, Vol 14, p.26-39.
- Sadler-Smith, E. (2001) A Reply to Reynolds's Critique of Learning Style, *Management Learning*, Vol 32, No 3, p.291-304.
- Sadler-Smith, E. (2001a) Does the Learning Styles Questionnaire Measure Style or Process? A reply to Swailes and Senior (1999), *International Journal of Selection and Assessment*, Vol 9, No 3, p.207-214.
- Sadler-Smith, E., Allinson, C.W., and Hayes, J. (2000) Learning Preferences and Cognitive Style, *Management Learning*, Vol 31, No 2, p.239-256.
- Sadler-Smith, E. and Riding, R. (1999) Cognitive Style and Instructional Preferences, *Instructional Science*, Vol 27, p.355-371.
- Santos, A., Leather, P., Dunn, J. and Sarola, A. (2009) Gender Differences in Exposure to Co-worker and Public-initiated Violence: assessing the impact of work-related violence and aggression in police work, *Work and Stress,* Vol 23, No 2, p.137-154.
- Scarman, Lord (1982) *The Scarman Report: the Brixton disorders 10-12 April 1981,* London, HMSO.
- Schmeck, R.R. (1988) **cited in** Riding, R. and Rayner, S. (1998) *Cognitive Styles and Learning Strategies,* London, David Fulton.
- Schmeck, R.R., Geisler-Brenstein, E. and Cercy, S.P. (1991) Self-Concept and Learning: the revised inventory of learning processes, *Educational Psychology*, Vol 11, No 3, p.343-362.
- Schuck, A.M. and Rabe-Hemp, C. (2005) Women Police: the use of force by and against female officers, *Women and Criminal Justice*, Vol 16, No 4, p.91- 117.

- Schön, D.A. (1983) *The Reflective Practitioner: how professionals think in action,* New York, Basic Books.
- Seklecki, R. and Paynich, R. (2007) A National Survey Of Female Police Officers: an overview of findings, *Police Practice and Research,* Vol 8, No 1, p.17-30.
- SDA (1975) Sex Discrimination Act, London, HMSO.
- Silverman, D. (2000) *Doing Qualitative Research*, London, Sage.
- Silvestri, M. (1998) Visions of the Future: the role of senior policewomen as agents of change, *International Journal of Police Science and Management,* Vol 1, No 2, p.148-161.
- Silvestri, M. (2003) *Women in Charge: policing, gender and leadership,* Cullompton, Willan.
- Silvestri, M. (2005) Doing Time: becoming a police leader, *International Journal of Police Science and Management*, Vol 8, No 4, p.266-281.
- Silvestri, M. (2007) Doing Police Leadership: enter the new smart macho, *Policing and Society*, Vol 17, No 1, p.38-58.
- Silvestri, M. and Crowther-Dowey, C. (2008) Gender and Crime, London, Sage.
- Sims, R.R., Veres, J.G. and Shake, L.G (1989) An Exploratory examination of the convergence between the Learning Style Questionnaire and the Learning Style Inventory, *Educational and Psychological Measurement*, Spring, Vol 49, No 1, p.227-233.
- Smart, C. (1995) Law, Crime and Sexuality: essays in feminism, London, Sage.
- Smith, J. (2002) Learning Styles: fashion fad or lever for change? The application of learning style theory to inclusive curriculum delivery, *Innovations in Education and Teaching International*, Vol 39, No 1, p.63-70.
- Stake, R.E. (2000), Denzin, N.K. and Lincoln, Y.S. (Eds), *Handbook of Qualitative Research* (2nd Ed), **in** Chap. 16 Case Studies, London, Sage.
- Stringer, P. (2005) A Question of Style: interview with Frank Coffield, *The Psychologist,* Vol 18, No 6, p.29-30.
- Swailes, S. and Senior, B. (1999) The Dimensionality of Honey and Mumford's Learning Styles Questionnaire, *International Journal of Selection and Assessment,* Vol 7, No 1, p.1-11.
- Swannell, M.J. (1992) *An Investigation into the Learning Strategies and Styles of Engineering Undergraduates,* Unpublished PhD Thesis, Nottingham Trent University.
- Taylor, L. K. (2008) Reviewing The Review, *Policing Today*, Vol 14, No 2, p.15-16.

- Teahan, J.E. (1975) A Longitudinal Study of Attitude Shifts Among Black and White Police Officers, *Journal of Social Issues*, Vol 31, No 1, p.47-56.
- Tepper, B.J., Tetrault, L.A., Braun, C.K. and Romero, J.E. (1993) Discriminant and Convergent Validity of the Problem Solving Style Questionnaire, *Educational and Psychological Measurement*, Vol 53, No 2, p.437-444.
- Terrell, S.R. (2002) The effect of Learning Style on Doctoral Course Completion in a Web-based Learning Environment, *The Internet and Higher Education,* Vol 5, No 4, p.345-352.
- Thacker, S. (1995) Next Generation, *Policing*, Vol 11, No 2, p.81-89.
- Thomas, G. and James, D. (2006) Reinventing Grounded Theory; some questions about theory, ground and discovery, *British Educational Research Journal*, Vol 32, No 6, p.767-795.
- Thompson, P. and McHugh, D. (2002) Work Organisations (3rd Ed), Basingstoke, Palgrave.
- Travers, M. (2001) Qualitative Research Through Case Studies, London, Sage.
- Vermunt J.D. (1996) Metacognative, Cognitive and Affective aspects of learning styles and Strategies: a phenomenographic analysis, *Higher Education*, Vol 31, p.25-50.
- Van Zwanenberg, N., Wilkinson, L. J. and Anderson, A. (2000) Felder and Silverman's Index of Learning Styles and Honey and Mumford's Learning Style Questionnaire: how do they compare and do they predict academic performance? *Educational Psychology*, Vol 20, No 3, p.365-380.
- Waddington, P.A.J. (1999) Police (Canteen) Culture: an appreciation, *British Journal of Criminology*, Vol 39, No 2, p.287-309.
- Walklate, S. (1992) Jack and Jill join up at Sunhill: public images of police officers, *Policing and Society*, Vol 2, p.219-232.
- Walklate, S. (2004) *Gender, Crime and Criminal Justice,* (2nd Ed), Cullompton, Willan.
- Wertsch, T.L. (1998) Walking the Thin Blue Line: policewomen and tokenism today, *Women and Criminal Justice*, Vol 9, No 3, p.23-61.
- West, C. and Zimmerman, D. H. (1987) Doing Gender, *Gender and Society*, Vol 1, No 2, p.125-151.
- Westmarland, L. (1999) Women Managing in the Police, *Police Research and Management*, Vol 3, No 3, p.59-68.
- Westmarland, L. (2001) *Gender and Policing: sex, power and police culture,* Cullompton, Willan.

- Wexler, J.G., and Logan D.D. (1983) Sources of Stress Among Women Police Officers, *Journal of Police Science and Administration*, Vol 11, No 1, p.46-53.
- Willcoxson, L. and Prosser, M. (1996) Kolb's Learning Style Inventory (1985): review and further study of validity and reliability, *British Journal of Educational Psychology*, Vol 66, p.247-257.
- Wood, D., Bruner, J.S. and Ross, G. (1976) The role of Tutoring in Problem Solving, *Journal of Child Psychology and Psychiatry*, Vol 17, p.89-100.
- Yahya, I. (1998) Wilcoxson and Prosser's factor analysis on Kolb's (1985) LSI data: reflections and re-analyses, *British Journal of Educational Psychology,* Vol 68, p.281-286.
- Yin, R.K. (1994) Case Study Research: design and methods, London, Sage.
- Young, M. (1991) An Inside Job, New York, Oxford University Press.

APPENDIX A

Questionnaire

This questionnaire is intended to obtain your views on what role or speciality you aspire to within the Police Service. It is for research purposes only, and should take no more than 2 to 3 minutes to complete. Your assistance would be greatly appreciated.

All information provided would be in *absolute confidence*, and can be supplied anonymously if you wish. The overall results of the research will be used as part of a research project for a MPhil/PhD Degree with University College Worcester.

Many Thanks

Cath Parker. Training Department, H.Q.

	(Pleas	se tick appropr	iate box)			
Are you?		□ Male		□ Fer	nale	Q1
Length of S	ervice?	□ 0 - 6 mths □ 7 - 12 mths □ 13 - 23 mths			Q2	
Please indica	Please indicate the results of your Learning Style Questionnaire: (Please tick appropriate box for each learning style)					Q3
	Very Strong	Strong	Moderate	Low	Very Low	
Activist						
Pragmatist						
Reflector						
Theorist						

What role within the Police Service do you believe could benefit from your personal skills or aptitudes?

$\mathbf{\cap}$	1
Y	4

	<u>Q5</u>
	this questionnaire. me. It may however be useful if there are questions arising from the future. If you have any comments you wish to make, please
Surname	First Name(s)
Force No	

What role or job within the service would you most like to perform in the future?

APPENDIX B

Questionnaire

This questionnaire is intended to obtain your views on what role or speciality you aspire to within the Police Service. It is for research purposes only, and should take no more than 2 to 3 minutes to complete. Your assistance would be greatly appreciated. All information provided would be in absolute confidence, and can be supplied anonymously if you wish. The overall results of the research will be used as part of a research project for a MPhil/PhD Degree with University College Worcester.

Many Thanks

Cath Parker. Training Department, H.Q.

(Plea	se tick appropriate l	box)		
Are you?	□ Male	□ Female		Q1
Length of Service?	□ 0 - 6 mths	□ 7 - 12 mths	□ 13 - 23 mths	Q2
Age?	□ 18 - 25 yrs	□ 26 - 35yrs	□ Over 35yrs	Q3
What are your previous	S Occupations?			Q4
What is your previous	Managerial Exper	ience?		Q5
Please indicate your Questionnaire:	scores for each	ch of the below	from your Learnin	n g Style Q6
Activist		Reflector_		
Theorist		Pragmatis	t	
What role within the Pol aptitudes?	-		it from your personal sk	ills or
				Q7
What role or job within t	the service would y	you most like to perf	form in the future?	

Family/Surname		First Name(s)
Force No	Course No	

Thank you for taking the time to complete this questionnaire. There is no need for you to supply your name. It may however be useful if there are questions arising from your responses that you could be contacted in the

future. If you have any comments you wish to make, please utilise the back of this page.

APPENDIX C

Learning Styles Questionnaire

This exercise is designed to find out your preferred learning style(s). Over the years you have probably developed learning 'habits' that help you benefit more from some experiences than from others. Since you are probably unaware of this, this questionnaire will help you pinpoint your learning preferences so that you are in a better position to select learning experiences that suit your style.

There is no time limit to this questionnaire. It will probably take you 10-15 minutes. The accuracy of the results depends on how honest you can be. There are no right or wrong answers. If you agree more than you disagree with a statement, put a tick by it $(\sqrt{\ })$. If you disagree more than you agree put a cross by it (X). Be sure to mark each item with either a tick or a cross.

\square 1. I have strong beliefs about what is right and wrong, good and bad.
$\hfill 2$. I often act without considering the possible consequences.
\square 3. I tend to solve problems using a step-by-step approach.
\square 4. I believe that formal procedures and policies restrict people.
\Box 5. I have a reputation for saying what I think, simply and directly.
$\hfill\Box$ 6. I often find that actions based on feelings are as sound as those based on careful thought and analysis.
$\hfill\Box$ 7. I like the sort of work where I have time for thorough preparation and implementation.
\square 8. I regularly question people about their basic assumptions.
$\ \square$ 9. What matters most is whether something works in practice.
□ 10. I actively seek out new experiences.
\square 11. When I hear a new idea or approach I immediately start working out how to apply it in practice.
\square 12. I am keen on self-discipline such as watching my diet, taking regular exercise, sticking to a fixed routine etc.

APPENDIX C
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\square 13. I take pride in doing a thorough job.
\square 14. I get on best with logical, analytical people and less well with spontaneous, "irrational" people.
\square 15. I take care over the interpretation of data available to me and avoid jumping to conclusions.
\square 16. I like to reach a decision carefully after weighing up many alternatives .
\Box 17. I'm attracted more to novel, unusual ideas than to practical ones.
$\hfill\Box$ 18. I don't like disorganised things and prefer to fit things into a coherent pattern.
$\hfill\Box$ 19. I accept and stick to laid down procedures and policies so long as I regard them as an efficient way of getting the job done.
\square 20. I like to relate my actions to a general principle.
\square 21. In discussions I like to get straight to the point.
$\ \square$ 22. I tend to have distant, rather formal relationships with people at work.
$\ \square$ 23. I thrive on the challenge of tackling something new and different.
□ 24.I enjoy fun-loving spontaneous people.
\square 25. I pay meticulous attention to detail before coming to a conclusion.
□ 26. I find it difficult to produce ideas on impulse.
\square 27. I believe in coming to the point immediately.
28. I am careful not to jump to conclusions too quickly.
 29. I prefer to have as many sources of information as possible- the more data to think over, the better.

30. Flippant people who don't take things seriously enough usually irritate me.
31. I listen to other people's point of view before putting my own forward.
32. I tend to be open about how I'm feeling.
33. In discussions I enjoy watching the manoeuvrings of the other participants.
34. I prefer to respond to events on a spontaneous, flexible basis rather than plan.
35.I tend to be attracted to techniques such as network analysis , flow charts, branching programmes, contingency planning etc.
36. It worries me if I have to rush out a piece of work to meet a tight deadline.
37. I tend to judge people's ideas on their practical merits.
38. Quiet, thoughtful people tend to make me feel uneasy.
39. I often get irritated by people who want to rush things.
40. It is more important to enjoy the present moment than to think about the past or future.
41. I think that decisions based on thorough analysis of all the information are sounder than those based on intuition.
42. I tend to be a perfectionist.
43. In discussions I usually produce lots of spontaneous ideas.
44. In meetings I put forward practical realistic ideas.
45. More often than not, rules are there to be broken.

46. I prefer to stand back from a situation and consider all the perspectives.
47. I can often see inconsistencies and weaknesses in other peoples arguments.
48. On balance I talk more than I listen.
49. I can often see better, more practical ways to get things done.
50. I think written reports should be short and to the point.
51. I believe that rational, logical thinking should win the day.
52. I tend to discuss specific things with people rather than engaging in social discussions.
53. I like people who approach things realistically rather than theoretically.
54. In discussions I get impatient with irrelevancies and digressions.
55. If I have a report to write, I tend to produce lots of drafts before settling on the final version.
56. I am keen to try things out to see if they work in practice.
57. I am keen to reach answers via a logical approach.
58. I enjoy being the one that talks a lot.
$59.\ In$ discussions I often find I am the realist, keeping people to the point and avoiding wild speculations.
60. I like to ponder many alternatives before making up my mind.
$61.\ \mbox{In discussions}$ with people I often find I am the most dispassionate and objective.
62. In discussions I'm more likely to adopt a "low profile" than to take the lead and do most of the talking.

63. I like to be able to relate current actions to a longer term bigger picture.
64. When things go wrong I am happy to shrug it off and "put it down to experience."
65. I tend to reject wild, spontaneous ideas as being impractical.
66. It's best to think carefully before taking action.
67. On balance I do the listening rather than the talking.
68. I tend to be tough on people who find it difficult to adopt a logical approach.
69. Most times I believe the end justifies the means.
70. I don't mind hurting people's feelings so long as the job gets done.
71. I find the formality of having specific objectives and plans stifling.
72. I'm usually one of the people who puts life into the party.
73. I do whatever is expedient to get the job done.
74. I quickly get bored with methodical, detailed work.
75. I am keen on exploring the basic assumptions, principles and theories underpinning things and events.
76. I am always interested to find out what people think.
77. I like meetings to be run on methodical lines, sticking to laid down agenda, etc.
78. I steer clear of subjective or ambiguous topics.
79. I enjoy the drama and excitement of a crisis situation.
80. People often find me insensitive to their feelings.

Learning styles questionnaire- scoring

You score one point for each item you ticked ($\sqrt{\ }$). There are no points for items you crossed (X). Simply indicate on the lists below which items were ticked.

' 9	76	78	80
74	67	77	73
72	66	75	70
' 1	62	68	69
4	60	63	65
58	55	61	59
·8	52	57	56
ł5	46	51	54
1 3	41	47	53
Ю	39	42	50
88	36	30	49
34	33	26	44
32	31	22	37
24	29	20	35
!3	28	18	27
7	25	14	21
0	16	12	19
)	15	8	11
ŀ	13	3	9
2	7	1	5
	0 7 3 4 2 4 8 0 3 5 8 8 4 1 2	13 15 0 16 7 25 3 28 4 29 2 31 4 33 8 36 0 39 3 41 5 46 8 52 8 55 4 60 1 62 2 66 4 67	13 3 15 8 0 16 12 7 25 14 3 28 18 4 29 20 2 31 22 4 33 26 8 36 30 0 39 42 3 41 47 5 46 51 8 52 57 8 55 61 4 60 63 1 62 68 2 66 75 4 67 77

In order to interpret your score, turn to the next page and compare your score on the grid.

Understanding your learning styles Circle the range for each learning style in which your score falls

	Very strong preference	Strong	Moderate	Low	Very Low
Activist	13-20	11-12	7-10	4-6	0-3
Reflector	18-20	15-17	12-14	9-11	0-8
Theorist	16-20	14-15	11-13	8-10	0-7
Pragmatist	17-20	15-16	12- 14	9-11	0-8

Now	that you ho	ave identified	your prefe	rred learn	ing style o	r styles,	list
then	n indicating	the strongest	first in th	e box belo	ow:		

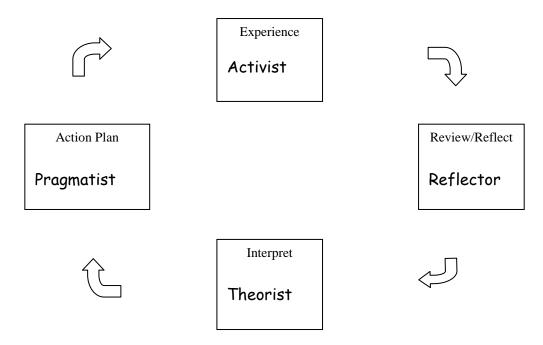
You may have scores that indicate you have traits in your character that fall into all the four categories of Honey and Mumford's analysis. There is something of the Activist, Reflector, Theorist and Pragmatist in all of us. Now read what Honey and Mumford say about each style(s) on the next page.

HANDOUT - LEARNING STYLES

If you have completed the Learning Styles Questionnaire you have already identified your own preferred learning style(s). We all have elements of all 4 styles, but most of us have 1 or 2 predominant styles.

It can be useful to be aware of your own predominant style. Overleaf is an explanation of the 4 different styles.

You should already be aware of the Experiential Learning Cycle (ELC). Learning styles are closely linked to this: -



Just as it is essential to progress fully around the ELC, it is also recognised that our learning styles can effect how we do this. We need to be aware of which areas of the ELC we are least comfortable with. For example a person who has 1 predominant learning style of let's say 'Reflector', may spend a lot of time thinking about what has happened - they may not want to force themselves onto the next stage of the cycle where they feel less comfortable. If we are to maximise our learning capability we have to ensure that we do give equal consideration to all aspects.

LEARNING STYLES – GENERAL DESCRIPTORS

Activists

Activists involve themselves fully and without bias in new experiences. They enjoy the here and now and are happy to be dominated by immediate experiences. They are open-minded, not sceptical, and this tends to make them enthusiastic about anything new. Their philosophy is: 'I'll try anything once'. They tend to act first and consider the consequences afterwards. Their days are filled with activity. They tackle problems by brainstorming. As soon as the excitement from one activity has died down they are busy looking for the next. They tend to thrive on the challenge of new experiences but are bored with implementation and longer term consolidation. They are gregarious people constantly involving themselves with others but, in doing so, they seek to centre all activities around themselves.

Reflectors

Reflectors like to stand back to ponder experiences and observe them from many different perspectives. They collect data, both first hand and from others, and prefer to think about it thoroughly before coming to any conclusion. The thorough collection and analysis of data about experiences and events is what counts so they tend to postpone reaching definitive conclusions for as long as possible. Their philosophy is to be cautious. They are thoughtful people who like to consider all possible angles and implications before making a move. They prefer to take a back seat in meetings and discussions. They enjoy observing other people in action. They listen to others and get the drift of the discussion before making their own points. They tend to adopt a low profile and have a slightly distant, tolerant, unruffled air about them. When they act it is part of a wide picture which includes the past as well as the present and others' observations as well as their own.

Theorists

Theorists adapt and integrate observations into complex but logically sound theories. They think problems through in a vertical, step-by-step logical way. They assimilate disparate facts into coherent theories. They tend to be perfectionists who won't rest easy until things are tidy and fit into a rational scheme. They like to analyze and synthesize. They are keen on basic assumptions, principles, theories, models and systems thinking. Their philosophy prizes rationality and logic. 'If it's logical it's good'. Questions they frequently ask are: 'Does it make sense?' 'How does this fit with that?' 'What are the basic assumptions?' They tend to be detached, analytical and dedicated to rational objectivity rather than anything subjective or ambiguous. Their approach to problems is consistently logical. This is their 'mental set' and they rigidly reject anything that doesn't fit with it. They prefer to maximize certainty and feel uncomfortable with subjective judgements, lateral thinking and anything flippant.

Pragmatists

Pragmatists are keen on trying out ideas, theories and techniques to see if they work in practice. They positively search out new ideas and take the first opportunity to experiment with applications. They are the sort of people who return from management courses brimming with new ideas that they want to try out in practice. They like to get on with things and act quickly and confidently on ideas that attract them. They tend to be impatient with ruminating and open-ended discussions. They are essentially practical, down to earth people who like making practical decisions and solving problems. They respond to problems and opportunities 'as a challenge'. Their philosophy is: 'There is always a better way' and 'If it *works* it's good'.

APPENDIX D

Training Department,
Police Headquarters,
Edited out,
Edited out.
Ext: Edited out

Mobile: Edited out

Dear

Thank you for agreeing to participate in my PhD research into learning styles and the career paths of female police officers.

Honey & Mumford Learning Style Questionnaire

I would like to interview you on your Police career to date. Prior to the interview I would ask that you spare approximately 10 - 15 minutes of your time to complete the enclosed Learning Styles Questionnaire. This questionnaire will help to identify your preferred Learning Style, and I would ask that you return it to me in the enclosed addressed envelope once completed. We will discuss the results prior to, and during the interview.

Interview

I would like to provide you with a flavour of what the interview will be about. I am particularly interested in the direction that your career has followed, and would use the analogy of a car journey from Lands End to John O'Groats.

- The starting point (the preparation for the journey) being your reasons for joining the police service and what role, if any, particularly attracted you.
- From there I will be asking you about where you have worked (in what Departments and Divisions), and for how long.
- The directions your career has taken so far. (Were/are there any road blocks, no entry signs, fast-tracks or motorways to where you wanted to go?)
- Were there places you wished to visit on the way? (Roles or Departments of particular interest)
- Were there outside influences that assisted or held you back?
- Were there people within the organisation that assisted or held you back?
- Are there career goals you are still working towards?
- Have you previously worked in or currently working in the role that you felt best suited your own individual strengths?

The interview will commence with my asking you for a 'route-map' of your career to date, you may find some of the above points useful when considering this.

I look forward to receiving your completed questionnaire by ..

Best wishes

Cath Parker

Ethical statement

- All participation in this research is voluntary and your informed consent is sought.
- All tapes, transcripts, notes etc will be stored securely, anonymised, and not released to any other individuals not involved in this research.
- Any information given will not be made public in any form that will identify any individual. In particular it will not be available to police management in any identifiable form.
- The outcomes of this research will be reported in a Ph.D. Thesis for University
 College Worcester, of which copies will be supplied to the Police Force in which the
 research took place and Bramshill Police Library. The results may also be
 published in academic and professional journals.
- Individuals are free to withdraw from this research at any time.

Our	appointment	for	the	interview	is:-
TIN	NE:				
DA٦	re:				
PLA	CE:				

I anticipate the interview to take approximately 1 hour. If you wish to contact me my mobile is (edited out), and contact details are as shown above.

APPENDIX E

Learning Styles Questionnaire

This exercise is designed to find out your preferred learning style(s). Over the years you have probably developed learning 'habits' that help you benefit more from some experiences than from others. Since you are probably unaware of this, this questionnaire will help you pinpoint your learning preferences so that you are in a better position to select learning experiences that suit your style.

There is no time limit to this questionnaire. It will probably take you 10-15 minutes. The accuracy of the results depends on how honest you can be. There are no right or wrong answers. If you agree more than you disagree with a statement, put a tick by it ($\sqrt{\ }$). If you disagree more than you agree put a cross by it (X). Be sure to mark each item with either a tick or a cross.

\square 1. I have strong beliefs about what is right and wrong, good and bad.
$\hfill 2$. I often act without considering the possible consequences.
\square 3. I tend to solve problems using a step-by-step approach.
$\hfill 4$. I believe that formal procedures and policies restrict people.
$\hfill\Box$ 5. I have a reputation for saying what I think, simply and directly.
$\hfill\Box$ 6. I often find that actions based on feelings are as sound as those based on careful thought and analysis.
$\hfill \ensuremath{\square}$ 7. I like the sort of work where I have time for thorough preparation and implementation.
$\hfill \square$ 8. I regularly question people about their basic assumptions.
$\ \square$ 9. What matters most is whether something works in practice.
□ 10. I actively seek out new experiences.
$\hfill \square$ 11. When I hear a new idea or approach I immediately start working out how to apply it in practice.

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 12. I am keen on self-discipline such as watching my diet, taking regular exercise, sticking to a fixed routine etc. 13. I take pride in doing a thorough job.
$\hfill\Box$ 14. I get on best with logical, analytical people and less well with spontaneous, "irrational" people.
$\hfill\Box$ 15. I take care over the interpretation of data available to me and avoid jumping to conclusions.
\square 16. I like to reach a decision carefully after weighing up many alternatives.
$\hfill\Box$ 17. I'm attracted more to novel, unusual ideas than to practical ones.
\square 18. I don't like disorganised things and prefer to fit things into a coherent pattern.
$\hfill\Box$ 19. I accept and stick to laid down procedures and policies so long as I regard them as an efficient way of getting the job done.
\square 20. I like to relate my actions to a general principle.
\square 21. In discussions I like to get straight to the point.
\square 22. I tend to have distant, rather formal relationships with people at work.
\square 23. I thrive on the challenge of tackling something new and different.
□ 24.I enjoy fun-loving spontaneous people.
\square 25. I pay meticulous attention to detail before coming to a conclusion.
□ 26. I find it difficult to produce ideas on impulse.
\square 27. I believe in coming to the point immediately.
28. I am careful not to jump to conclusions too quickly.
 29. I prefer to have as many sources of information as possible- the more data to think over the better

30. Flippant people who don't take things seriously enough usually irritate me.
31. I listen to other people's point of view before putting my own forward.
32. I tend to be open about how I'm feeling.
33. In discussions I enjoy watching the manoeuvrings of the other participants.
34. I prefer to respond to events on a spontaneous, flexible basis rather than plan.
35.I tend to be attracted to techniques such as network analysis, flow charts, branching programmes, contingency planning etc.
36. It worries me if I have to rush out a piece of work to meet a tight deadline.
37. I tend to judge people's ideas on their practical merits.
38. Quiet, thoughtful people tend to make me feel uneasy.
39. I often get irritated by people who want to rush things.
40. It is more important to enjoy the present moment than to think about the past or future.
41. I think that decisions based on thorough analysis of all the information are sounder than those based on intuition.
42. I tend to be a perfectionist.
43. In discussions I usually produce lots of spontaneous ideas.
44. In meetings I put forward practical realistic ideas.
45. More often than not, rules are there to be broken.
46. I prefer to stand back from a situation and consider all the perspectives. 47. I can often see inconsistencies and weaknesses in other people's arguments.

Со	pyright Honey & Mumford 1986
	48. On balance I talk more than I listen.
	49. I can often see better, more practical ways to get things done.
	50. I think written reports should be short and to the point.
	51. I believe that rational, logical thinking should win the day.
	52. I tend to discuss specific things with people rather than engaging in social discussions.
	53. I like people who approach things realistically rather than theoretically.
	54. In discussions I get impatient with irrelevancies and digressions.
	55. If I have a report to write, I tend to produce lots of drafts before settling on the final version.
	56. I am keen to try things out to see if they work in practice.
	57. I am keen to reach answers via a logical approach.
	58. I enjoy being the one that talks a lot.
	$59.\ In\ discussions\ I$ often find I am the realist, keeping people to the point and avoiding wild speculations.
	60. I like to ponder many alternatives before making up my mind.
	61. In discussions with people I often find I am the most dispassionate and objective
	62. In discussions I'm more likely to adopt a "low profile" than to take the lead and do most of the talking.
	63. I like to be able to relate current actions to a longer term bigger picture.
	64. When things go wrong I am happy to shrug it off and "put it down to experience."
	65. I tend to reject wild, spontaneous ideas as being impractical.

66. It's best to think carefully before taking action.
67. On balance I do the listening rather than the talking.
68. I tend to be tough on people who find it difficult to adopt a logical approach.
69. Most times I believe the end justifies the means.
70. I don't mind hurting people's feelings so long as the job gets done.
71. I find the formality of having specific objectives and plans stifling.
72. I'm usually one of the people who puts life into the party.
73. I do whatever is expedient to get the job done.
74. I quickly get bored with methodical, detailed work.
75. I am keen on exploring the basic assumptions, principles and theories underpinning things and events.
76. I am always interested to find out what people think.
77. I like meetings to be run on methodical lines, sticking to laid down agenda, etc.
78. I steer clear of subjective or ambiguous topics.
79. I enjoy the drama and excitement of a crisis situation.
80. People often find me insensitive to their feelings.

Learning styles questionnaire- scoring

You score one point for each item you ticked ($\sqrt{\ }$). There are no points for items you crossed (X). Simply indicate on the lists below which items were ticked.

2	7	1	5
4	13	3	9
6	15	8	11
10	16	12	19
17	25	14	21
23	28	18	27
24	29	20	35
32	31	22	37
34	33	26	44
38	36	30	49
40	39	42	50
43	41	47	53
45	46	51	54
48	52	57	56
58	55	61	59
64	60	63	65
71	62	68	69
72	66	75	70
74	67	77	73
79	76	78	80
Totals			
Activist Activist	Reflector	Theorist	Pragmatist

In order to interpret your score, turn to the next page and compare your score on the grid.

Understanding your learning styles Circle the range for each learning style in which your score falls

	Very strong preference	Strong	Moderate	Low	Very Low
Activist	13-20	11-12	7-10	4-6	0-3
Reflector	18-20	15-17	12-14	9-11	0-8
Theorist	16-20	14-15	11-13	8-10	0-7
Pragmatist	17-20	15-16	12- 14	9-11	0-8

Now that you have identified your preferred learning style or styles, list them indicating the strongest first in the box below:

You may have scores that indicate you have traits in your character that fall into all the four categories of Honey and Mumford's analysis. There is something of the Activist, Reflector, Theorist and Pragmatist in all of us. Now read what Honey and Mumford say about each style(s) on the next page.

As you read the descriptions please underline anything which you believe relates to you.

Learning Styles- General descriptions

Activists

Activists involve themselves fully and without bias in new experiences. They enjoy the here and now and are happy to be dominated by immediate experiences. They are open-minded, not sceptical and this tends to make them enthusiastic about anything new. Their philosophy is: "I'll try anything once." They tend to act first and consider the consequences afterwards. Their days are filled with activity. They tackle problems by board blasting. As soon as the excitement from one activity has died down, they are busy looking for the next. They tend to thrive on the challenge of new experiences but are bored with implementation and longer term consolidation. They are gregarious people constantly involving themselves with others but, in doing so, they seek to centre all activities around themselves.

Reflectors

Reflectors like to stand back to ponder experiences and observe them from many different perspectives. They collect data, both first hand and from others and prefer to think about it thoroughly before coming to any conclusion. The thorough collection and analysis of data about experiences and events is what counts so they tend to postpone reaching definitive conclusions for as long as possible. Their philosophy is to be cautious. They are thoughtful people who like to consider all possible angles and implications before making a move. They prefer to take a back seat in meetings and discussions. They enjoy observing other people in action. They listen to others and get the draft of the discussion before making their own points. They tend to adopt a low profile and have a slightly distant, tolerant, unruffled air about them. When they act it is part of a wide picture which includes the past as well as the present and others' observations as well as their own.

Theorists

Theorists adapt and integrate observations into complex but logically sound theories. They think problems through in a vertical, step by step, logical way. They assimilate disparate facts into coherent theories. They tend to be perfectionists who will not rest easy until things are tidy and fit into a rational scheme. They like to analyse and synthesise. They are keen on basic assumptions, principles, theories, models and systems thinking. Their philosophy prizes rationality and logic. "If it's logical it's good." Questions they frequently ask are, "Does it make sense?" "How does this fit with that?" They tend to be detached, analytical and dedicated to rational objectivity rather than anything subjective or ambiguous. Their approach to problems is consistently logical. This is their 'mental set' and they rigidly reject anything that doesn't fit with it. They prefer to maximise certainty and feel uncomfortable with subjective judgements, lateral thinking and anything flippant.

Pragmatists

Pragmatists are keen on trying out ideas, theories and techniques to see if they work in practice. They positively search out new ideas and take the first opportunity to experiment with applications. They are the sort of people who return from management courses brimming with new ideas that they want to try out in practise. They like to get on with things and act quickly and confidently on ideas that attract them. They tend to be impatient with ruminating and open-ended discussions. They are essentially practical down to earth people, who tend to like making practical decisions and solving problems. They respond to problems and opportunities "as a challenge". Their philosophy is "There is always a better way" and "If it works it's good".

Many thanks for your time. I would now ask that you return pages 6 to 9, including these last 2 pages that you have *underlined* to me prior to the interview.

Cath Parker
Training Department
H.Q.

APPENDIX F

Interview Schedule/Guide

Servi Age:	No: Joined:
commend withdraw anonymit recognise	cts were informed of the purpose of the research and the procedures to be followed. The interviews ced with a discussion of any potential risks or discomforts. An assurance that participants are free to consent and discontinue participation at any time, and that confidentiality will be maintained and cy assured. Go over their preferred learning style and get to identify traits by underlining what they be from learning style descriptors. (Ask to refer to during interview) on re tape and seek permission to audio-tape, and take notes.
1.	What motivated you to join the Police?
	On joining the Police did you have aspirations to join any particular Department? REFER TO QUESTIONNAIRE
3.	Has that changed, do you have different aspirations or goals now?
4.	Where have you worked since joining?
5.	Is there anything or anyone that has assisted you or held you back?
6.	Is there anyone you would consider a role model?
7.	What role have supervisors played in your career choices or opportunities todate?
8.	Have you ever experienced any blocking of opportunity?
9.	What role do you think would best suit your own individual strengths?
10.	So far when during your career would you say you were happiest?
11.	Is there any aspect of the job you find exciting?
12.	Do you enjoy a challenge?

- 13. Do you consider yourself to be ambitious?
- 14. Do you consider yourself to be motivated?
- 15. What has or could de-motivate you?
- 16. Has LUCK played any part in your career todate?
- 17. Do you think that you have been afforded good opportunities to enhance your career?
- 18. Have you taken/or thinking of taking what you or others would consider to be a career risk?
- 19. Have you ever experienced the need that you have to outperform others?
- 20. What do you think is/was the most significant factor in influencing your career?
- 21. Do you recognise the elements of your **preferred learning style(s)** in yourself?
- 22. Do you believe that those preferences have influenced your career to date?
- 23. Do you think that your preferred learning style is the same now as before you joined the police? REFER TO 1ST QUESTIONNAIRE AND DISCUSS CHANGES.
- 24. Do you consider that your skills and strengths are used to best effect in the police service? YES/ SOMEWHAT/ NO
 - Explain what happens to data
 - Ask if they would like to check transcript for accuracy.
 - Ask if any questions, or anything to add.
 - Thank for participation

APPENDIX G

Learning & Development Services
(formerly Training Dept.),
Police Headquarters,
Edited out,
Edited out
Ext: Edited out
Mobile: Edited out

Dear Colleague,

Some time ago whilst attending your Stage course you kindly completed a Learning Styles Questionnaire for me. You indicated on the form that you may be willing to take further part in my research.

I am undertaking research into learning styles and the career paths of female police officers for my PhD with Worcester University, and was hoping that you would be able to assist me by taking part. It would entail the completion of the attached questionnaire (should take about 15 minutes) and an interview (approx 1hr). I have attached a more detailed explanation of what would be involved. I should like to emphasise that any information given will not be made public in any form that will identify any individual.

I very much hope that you will agree to participate, if so, I look forward to receiving your completed questionnaire and details of how to contact you ASAP. I am more than prepared to travel to a location etc of your choosing for the interview, or if you prefer we can hold it at [edited out].

If you have any questions please feel free to ring me to discuss.

Best wishes

Cath Parker
[Rank & No Edited out]

Honey & Mumford Learning Style Questionnaire

I would ask that you spare approximately 10 - 15 minutes of your time to complete the enclosed Learning Styles Questionnaire (for comparison against the one you previously completed), to identify your preferred Learning Style. Then return it to me in the enclosed addressed envelope once completed.

<u>Interview - should take approximately 1 hour</u>

I would like to provide you with a flavour of what the interview would be about. I am particularly interested in the direction that your career has followed todate, and would use the analogy of a car journey from Lands End to John O'Groats.

- The starting point (the preparation for the journey) being your reasons for joining the police service and what role (if any) particularly attracted you.
- Where you have worked, and for how long.
- The directions your career has taken so far. (Were/are there any road blocks, no entry signs, fast-tracks or motorways to where you want to go?)
- Were there places you wished to visit on the way? (Roles or Departments of particular interest)
- Any outside influences that have assisted or held you back?
- People within the organisation that assisted or held you back?
- Career goals you are working towards?
- The role(s) that you feel best suit your own individual strengths?

The interview would commence with my asking you for a 'route-map' of your career to date

Ethical statement

- All participation in this research is voluntary and your informed consent is sought.
- All tapes, transcripts, notes etc will be stored securely, anonymised, and not released to any other individuals not involved in this research.
- Any information given will not be made public in any form that will identify any individual. In particular it will not be available to police management in any identifiable form.
- The outcomes of this research will be reported in a Ph.D. Thesis
 for Worcester University, of which copies will be supplied to the
 Police Force in which the research took place and Bramshill Police
 Library. The results may also be published in academic and
 professional journals.
- Individuals are free to withdraw from this research at any time.

Research into the career paths, and career choices of female police officers and their learning styles.

PLEASE COMPLETE AND RETURN TO ME WITH QUESTIONNAIRE

I (insert name) Am happy to take part in your				
research,				
I enclose the completed Learning Styles Questionnaire.				
I am prepared to be interviewed, and my contact details are:				
Work Address:				
Contact Tel No:				

OR

SEND BACK TO ME IF YOU DO NOT WISH TO PARTICIPATE FURTHER

I (insert name)
(Force no)
DO NOT WISH TO PARTICIPATE,
please do not contact me again.

APPENDIX H

Interview 3 ' Claire' 17 yrs service, Police Inspector - EXTRACT	Coding
Q: What motivated you to join the police? A: There has been a history to it because I didn't have any real plan, so know what attracted me to it but my first interest was the career thing, and I applied for the Met Cadet scheme, but I didn't get it they rejected me. I decided to go back to school, finish my O'Levels and from there it went onto A' Levels and University which was a natural	Rejection
progression. At the end of my university degree and the paths that were open to me was research which was 2 yrs but didn't inspire me at all. I thought what is it that interested me, and I had an interest in the police. It's difficult to think back now, and think why, why did I want to join the police. They say 'I want to do something for the	Lack of inspiration
community' and I think stuff the community, I'm not interested in the community. I think it was the variety, the variety of the work. The	Stimulus needed.
other thing was that at the time the police were always held up to me as being - if you are in trouble they are the ones you go to for help. I had a good experience from that, and that good experience is something I would like other people to benefit from. Which brings me back to what I said earlier about not wanting to do something for the community, but thinking about it from the grass roots it is. From a very specific position from what I experienced as a child.	Reality over romance. Helping others. Community. Decision taken not to pursue.
Q: ok thank you. When you joined the police, did you have any particular aspirations as to what you wanted to do? A: I did. I was interested in the investigation side, more of a puzzle than sort of hands on policing, but that soon disappeared. Maybe the reason behind that was the people who were on the CID at that time, and getting onto it was very difficult, and I enjoyed what I was doing – front line policing, I was quite happy what I was doing, quite happy to stay.	Puzzle. Investigation. CID Content with lot.
	Closed shop.
Q: coming back to the people who the people who inspired you, what sort of? A: It was very much a closed shop; they didn't like to discuss what they were doing. They tended to be a stereo type of male officers who	Fear of Dinosaurs.
appeared to have been in the role for 5 to 10 years, and on top of probably $5-10$ years in uniform so they were well away from front	Dead men's shoes.
line policing. Very difficult to approach. It was held up as an area that was 'dead mans shoes', that was within my first 2 years. I wouldn't say that that was the main thing that told me I didn't want to go into CID, I was happy and I had enough to learn.	Willing to learn.
Q: From what you have said your aspirations have changed, what are your goals now? A: Now, god, very different. Things that I would have thought would have interested me earlier in my career and now closed to me. They passed me by. Although I have an opportunity to break into the CID	Doors closed. Opportunities missed. Credibility. Lack of Confidence.
at Inspector level, it's very hard. I don't have the credibility within myself; I don't feel I could stand up and say this is how you should run a major investigation or a murder enquiry because I don't have	Opinion of others. Head over the parapet.

that experience. I don't want to go through the feeling that people are standing there and saying 'that girl ...'

So instead of going there I probably will not risk going into the CID. I will do what I think I'm best at which is front line policing, management and see what pans out from there.

Q: You mentioned earlier about avenues being closed to you, what did you mean by that?

A: Promotion, and lack of experience at Constable level. It's much harder to break in. (long pause)

Q: You mention lack of experience a couple of times, why do you think that came about?

A: As a PC I got the opportunity to do 1 attachment to CID, when I asked for a 2nd one I was told that you were only allowed 1 at a time and by the time the opportunity came around again I had moved jobs, stations. As far as they were concerned it was no longer open to me because I was now the community constable – ** 4 females ** they were good enough reasons apparently at the time. 'No you can't do that because you are needed somewhere else' and I'm quite flexible, I can be persuaded to do something that I don't want to do if somebody presented it to me in the right way. So having only had one opportunity to get on the CID for 3 months as a PC, by the time the opportunity came around again – it was too late. One of the things that I did just after my probation I tried for the National Crime Squad, the Regional Crime Squad as is now. I got to the interview; I almost got through the process. Nothing was ever written down to say I'd got the job, then the Home Office changed the criteria, and said that you had to have at least 12mths on CID which I didn't – again that was impossible, so again it was taken away from me. Something I really wanted to do and it was taken away from me at the last second. By the time I had enough experience behind me it was too late, I had moved onto something else.

Q: You mentioned regarding the attachments that there were 4 females within the Division, and that only 1 of you could go on at a time, was that related to the fact you were all female?

A: It was highlighted that as we were women they only 1 of us could go on at a time. Now it was never actually said, you know to deal with sexual assaults and rape, but it was held up as being — well you are needed elsewhere. You are the only female on the uniform group, we need you there. You had a feeling of duty to your other colleagues rather than being somewhere else. So rather than pursue your own goals(fades out).

Q: Ok. How has that original motivation influenced your career to date?

A: I look back on my career and think it wasn't what I expected it to be when I joined and saw my career developing. Not that I haven't enjoyed what I have done, but it is an area of regret for me. Because the CID aspect became less interesting as I got to know more about what they did, and it didn't really appeal to me

Opportunities lost due to promotion.

CID.

Unofficial quotas.

Compromise for organisational efficiency.

Easily influenced by others. NCS. RCS.

Lost chance.
Goal posts moved.

Tokenism.

Made to feel guilty.

Regrets. CID. Held back.

Surveillance.

Experience.

Credibility.

	Regrets. Lost opportunities.
Interview 5 'Diane' 19 years service, Det. Constable - EXTRACT	Coding
Q: Do you feel that there's been outside influences that've either assisted you or held you back? A: I don't really feel as if I've been assisted at all with anything I've wanted to do. I don't think I've been held back either really — people's opinions when I wanted to join the Firearms Team; most people were shocked when I wanted to do that because it was a man's world and I remember someone saying to me once "Well a woman shouldn't be on there because a woman wouldn't be able to pull the trigger" and I thought "well how do they know they'd be able to pull the trigger either" because you've got to be faced with the situation before you can say how you would deal with it. You think you would deal with it as your training has trained you to do but you don't know for certain until you're faced with it and you've just got to wait and see.	Resistance of colleagues to firearms team. Mans world? Negative gender remarks.
Q: Yeah. A: I was quite good as a Firearms Officer, I actually won the AFO newcomer of the year award one year but afterward, what held me back from pushing myself forward then I lost a bit of confidence because people said that was because I was a woman, it wasn't because I was the best at what I was doing and I was good enough to win that award – it was because they wanted a woman to actually have that award that year so I did loose quite a lot of confidence over that. Q: Oh, so the person you mentioned here about "would you be able to pull the trigger" was that someone within the Firearms environment or was that somebody outside of it?	Confidence – knocked. Influence of others on self-esteem. Negative gender remarks. Gendered out! Keeping in her place?
 A: It was someone on my Firearms team. Q: It was actually someone on the team that you were working on? A: Yeah, that I was working with. There were eight of us and we worked together eight hours a day, day in day out. Q: So this was after your training? A: It was after my training yeah, I'd passed the course and you had to go for repeat training every month, you had to reach a certain standard and I think it was about six months later they had an award evening where I was awarded that award for newcomer of the year and I look back and I can see it for what it was – it was just jealousy, but at the time it did dent my confidence quite a lot. 	Marginalised by colleagues.

Q: How long were you in that particular role - Firearms?

A: About eighteen months.

Q: And how much service have you got now?

A: I've got broken service because I left when I had the children so I think I've got a total of nineteen years next month.

Q: Oh right. Do you mind me asking how old you are?

A: No I don't mind – I'm forty-four.

Q: So we were talking there about outside influences that might have assisted or held you back in any way – were there things within the Organisation, not necessarily people but anything people or things that assisted or held you back?

A: I don't.... Nothing sort of set down in stone but it was just the feeling that you couldn't apply for certain things because they were a man's world – dog handling was one of them. If you couldn't pick up your dog and run, I don't know a hundred yards or whatever it was then you couldn't go on the dog section and... not that that was... I'd already decided by then that that was not what I wanted to do but you just didn't feel able to apply for jobs that you felt were a man's world, so... (fades out).

Q: So the dog section being one and you've already mentioned Firearms – were there other jobs like that that you felt the same about?

A: No, in the very early stages they wouldn't allow women to do Public Order training because they said you won't be able to pick up the shield and then when I rejoined and they said you're going Public Order training I said "well I thought I wasn't allowed because I'm only a woman" but they gave me a shield and I managed it, it certainly wasn't easy but I managed to do my bit and I got trained and it was just more unspoken really – you didn't feel that you should apply for those jobs. So I quite surprised myself by having the bottle really to apply for the Firearms job because at the time there was only one other female Firearms Officer on any of the teams and when I went on it there were only the two of us in the Force and I wanted to make this great statement for women, that it's ok for everybody to do whatever they want to do, and do well at it, but once my confidence started to go I left there and I thought it's just too big a statement for me to make, I'm just going to drop out.

Q: So what sort of experience did you have while you were on that team as a Firearms Officer?

A: It was very difficult, it was.. every time I got some praise for doing

Confidence dented.

Firearms.

19yrs service 44 years of age.

Perception of women marginalised.

Policy discriminating against women (now changed).

Institutional Bullying Mans World?

Policy discriminating against women (now changed.)

Surprised by her confidence being high.
Self esteem.

Won the race but lost the war.
Having the bottle.

something well it was because I was a woman not because I'd done it well. If we were involved in a search or something and I found something it was only because it was right in front of me, not because I'd searched properly to find it you know?

Pathfinder

Pathfinder for women too big a task. Head over the parapet.

Feeling patronised.